



**PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED**

**PTTEP INTERNATIONAL LIMITED**

**PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

**CALL FOR TENDER NO.: THC19-5246**

**FOR**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED  
PIPELINES, BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT**

**(T&I PART)**

**INSTALLATION IN 2022-2024**

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**PART I**

**INSTRUCTIONS TO TENDERERS**

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## 1. **PURPOSE**

- 1.1 Through this CFT, PTT Exploration and Production Public Company Limited, PTTEP International Limited and PTTEP Energy Development Company Limited (all together hereinafter referred to as “**COMPANY**”) are seeking to nominate a contractor for the performance of works/services under the Contract No. THC19-5246. The details of the works/services are specified in Exhibit A of Form of Contract (PART II of the CFT).
- 1.2 The estimated Contract duration is 4 years 9 months starting from 1<sup>st</sup> October 2020 until 30<sup>th</sup> June 2025.
- 1.3 Special requirement shall be referred in Summary for TENDERER in Appendix 3 of this document.

## 2. **CLOSING DATE AND TIME**

The closing date and time for the submission of the TENDER is **22<sup>nd</sup> May 2020 at 14.00 hrs., Bangkok time.**

Failure of a TENDERER to comply with this deadline may result in rejection of the TENDER Package and disqualification of the TENDERER.

## 3. **DEFINITIONS**

For all purposes of this CFT, the terms defined here below shall have the meanings assigned to them hereafter.

- 3.1 **AGREEMENT** shall mean Form of Contract No. THC19-5246.
- 3.2 **CFT** shall mean the Call for TENDER No. THC19-5246.
- 3.3 **COMPANY GENERAL CLARIFICATIONS** means modification to the TENDER DOCUMENTS or other instructions, issued by COMPANY to all TENDERERS after the opening of the Technical and Contractual Proposals.
- 3.4 **QUALIFICATIONS** means a deviation or exception to the requirements of the Call for TENDER.
- 3.5 **REQUEST FOR CLARIFICATION** means a request made by a TENDERER prior to the closing date and time set out in Item 2 for clarification of the Call for TENDER.
- 3.6 **SERVICES** (or **WORK**) shall mean the works or services and other obligations to be performed by a successful TENDERER as described in the TENDER DOCUMENTS, in particular Exhibit A of the Form of Contract.
- 3.7 **TENDER** shall mean the TENDERER’s offer to perform the SERVICES, and any subsequent revised offer in response to COMPANY’s request.
- 3.8 **TENDER DOCUMENTS** shall mean this CFT and any document related thereto remitted by COMPANY together with any addenda that may be issued by COMPANY to TENDERER prior to the closing date and time set out in Item 2.
- 3.9 **TENDERER** shall mean the company, partnership or other person who receives this CFT (either via email or any other ways) from COMPANY.

3.10 **TENDER CLARIFICATION** means a written request from COMPANY to a TENDERER made after the Tender closing date for further and better information.

#### **4. ACKNOWLEDGMENT OF RECEIPT OF CALL FOR TENDER DOCUMENTS**

- 4.1 Within forty-eight (48) hours from the receipt of this CFT, TENDERER shall sign and return a Letter of Acknowledgement in the form given in ITT Annex 1 to COMPANY. TENDERER shall specify tendering entity, the name, position, phone number, and email address of the person in charge of its TENDER.
- 4.2 For any TENDERER submitting his TENDER in form of Consortium or Joint Venture, all participants under such Consortium or Joint Venture shall be confirmed in Letter of Acknowledgement. Any change on tendering entity later from this stage without APPROVAL from COMPANY will result in disqualification and exclusion of a TENDERER from further involvement in the Tender Process.
- 4.3 If TENDERER does not wish or is unable to tender, it shall decline by submitting the Letter of Acknowledgement (ITT Annex 1) and return all TENDER DOCUMENTS to COMPANY without delay.

#### **5. COMMUNICATIONS CONCERNING THE TENDER DOCUMENTS**

##### 5.1 Generally

All correspondences related to this CFT are to be addressed to:

**PTT Exploration and Production Public Company Limited**  
**PTTEP International Limited** and  
**PTTEP Energy Development Company Limited**  
Energy Complex Building A, Floors 6, 19-36  
555/1 Vibhavadi Rangsit Road, Chatuchak,  
Bangkok 10900, THAILAND

Telephone: +66(0) 2537 4000  
Fax: +66(0) 2537 5043, + 66(0) 2537 4464

Attention: **Mr. Chindanai Preuksapanich** (*Focal Point for this RFQ*)  
Officer, Procurement and Contracts  
[bundle3@pttep.com](mailto:bundle3@pttep.com)

##### 5.2 Verification of the TENDER DOCUMENTS

TENDERER shall check and verify that all TENDER DOCUMENTS have been properly received and shall immediately inform the COMPANY if any are incomplete or missing.

No representation or warranty, expressed or implied, is made by COMPANY with respect to the completeness or accuracy of the information contained herein or the assumptions used. TENDERER shall make his own independent interpretation, evaluation and assessment of the documents and information in the TENDER DOCUMENTS.

TENDERER shall carefully examine the TENDER DOCUMENTS on receipt to ensure such documents and information therein is adequate, sufficient, and complete and contains no errors, omissions, contradictions, inconsistencies, ambiguities or discrepancies. Upon discovery of any of the foregoing, TENDERER shall immediately issue REQUEST FOR CLARIFICATION to focal point of this CFT listed in 5.1.

### 5.3 REQUEST FOR CLARIFICATION

TENDERERS shall make any REQUEST FOR CLARIFICATION in accordance with the instruction described in ITT Annex 7 using pro-forma excel sheet and shall submit the same to focal point of this CFT listed in 5.1 by email.

The deadline for receipt by the COMPANY of REQUEST FOR CLARIFICATION is **fourteen (14) days before the Tender closing date**. COMPANY will not respond to any REQUEST FOR CLARIFICATION received during the last fourteen (14) days of the Tender Period.

COMPANY's answer to each proposed REQUEST FOR CLARIFICATION shall be considered to be final and the item shall not reappear as a QUALIFICATION in the Technical and Contractual Proposal.

Unless the answer to a REQUEST FOR CLARIFICATION is specific to a TENDERER, it will be distributed equally to all TENDERERS by Tender Bulletin. The identity of the TENDERER who raised the REQUEST FOR CLARIFICATION will not be revealed to the other TENDERERS.

### 5.4 Tender Bulletins

COMPANY may modify or amend any part of the TENDER DOCUMENTS before the Tender closing date by means of Tender Bulletins issued by COMPANY simultaneously to all TENDERERS. TENDERER shall immediately acknowledge receipt of each Tender Bulletin to focal point of this CFT listed in 5.1 by email and confirm that the contents of the Tender Bulletin will be addressed in its TENDER.

### 5.5 QUALIFICATIONS

The TENDER shall be prepared and submitted strictly accordance with the terms and conditions of this Instruction to TENDERERS. COMPANY requires the TENDER to be submitted without deviations and or exceptions (QUALIFICATIONS).

QUALIFICATIONS may only be made for requirements that TENDERER is unable to comply with under any circumstance or which cannot be priced.

All QUALIFICATIONS must be prepared in accordance procedure using the M.S. Excel submission forms and coded in accordance with the procedure described in ITT Annex 8 hereto. All QUALIFICATIONS shall be only included in Section 4.0 of Volume 1.

**TENDERER must not include any QUALIFICATIONS or exceptions in Volume 2 – Commercial Proposal nor on the Priced Supplementary Proposal.**

No TENDER shall be conditional upon the availability of Contractor's Personnel, Construction Equipment, Contractor Items or any other resources to be provided by the TENDERER for the performance of the WORK. Availability of same shall be fully evidenced by TENDERER in its Technical and Contractual Proposal and with supporting documents.

A QUALIFICATION or exception to the requirements of the TENDER DOCUMENTS made other than in Section 4.0 of Volume 1- the Technical and Contractual Proposal shall be considered invalid and shall be disregarded.

The failure of a TENDERER to comply with the foregoing requirements may result in disqualification of the TENDERER and rejection of a TENDER.



## 5.6 Communications after the Submission of the TENDER

TENDERER **shall not** under any circumstances enter into any communications whatsoever with COMPANY after submission of the TENDER except unless as response to a request or communication from COMPANY. Failure to comply with this requirement may result in disqualification of the TENDERER and rejection of the TENDER.

## 5.7 TENDER CLARIFICATION

COMPANY may request clarification from a TENDERER in aspects of a Technical and Contractual Proposal that are vague, insufficient or unclear by means of TENDER CLARIFICATION.

TENDERER shall immediately acknowledge receipt of each TENDER CLARIFICATION to focal point of this CFT listed in 5.1 by email and shall provide the information requested by the deadline stated in the TENDER CLARIFICATION.

## 5.8 COMPANY GENERAL CLARIFICATIONS

COMPANY may modify or amend any part of the TENDER DOCUMENTS after the opening of the Technical and Contractual Proposals by means of COMPANY GENERAL CLARIFICATIONS issued by COMPANY simultaneously to all TENDERERS.

TENDERER shall immediately acknowledge receipt of each COMPANY GENERAL CLARIFICATION to focal point of this CFT listed in 5.1 by email and confirm agreement to the same and that the contents will be addressed in its TENDER.

## 5.9 Unsolicited Price Adjustments

Unsolicited price adjustments offered by a TENDERER will be rejected or returned unopened.

## 5.10 Updates to the Form of Contract

Only the Tender Bulletin, TENDER CLARIFICATION, COMPANY GENERAL CLARIFICATIONS with a Y entered in the "Update Form of Contract (Y/N)" column will be incorporated into the final Contract. Items with an N in Column are instructions to TENDERERS or merely clarifications which do not change the Contract.

## 5.11 Tender Clarification Meeting

Each TENDERER shall be prepared to discuss in COMPANY offices, at TENDERER's own cost and expense any aspect of his TENDER at any time between TENDER submission and Contract award.

As part of the Tender Clarification process a Tender Clarification Meeting will be held separately with each TENDERER at COMPANY's offices in Bangkok, Thailand on a date to be advised by COMPANY. The objective of the Clarification Meetings is to ensure that all aspects of a TENDERER's proposals are satisfactorily elaborated and to confirm COMPANY's response to QUALIFICATIONS. The outcome of the meeting will be documented and signed by COMPANY and TENDERER as a true record. The meeting will be confined to one (1) day only.

**6. TENDER SUBMISSION**

- 6.1 TENDERER shall submit to COMPANY a Letter of Submission in the form set out in ITT Annex 2 together with its TENDER.
- 6.2 COMPANY will only consider the TENDER from TENDERER who receives the CFT (either via email or any other ways) from COMPANY. The TENDER from other persons or companies will not be considered.
- 6.3 The TENDER shall be submitted in **two (2) original documents** which are **one (1) original Technical Proposal** and **one (1) original Commercial Proposal**, clearly identified “**ORIGINAL**” on each document, and one (1) copy of both documents, clearly identified “**COPY**” on each document. **Each Proposal shall be sealed in a separate envelope.**
- 6.4 In addition to the hard copy submission, TENDERER shall submit two (2) CDs. The first CD, clearly marked “**Technical Proposal CD**”, shall contain completed Technical Proposal in editable native files. The second CD, clearly marked “**Commercial Proposal CD**”, shall contain completed Commercial Proposal in editable native files. **Each CD shall be packed in a separate and sealed envelope.**
- 6.5 The following mention shall be indicated on the top left corner of each sealed envelope:

**NAME OF TENDERER**

**BID FOR PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

**CALL FOR TENDER NO: THC19-5246 (T&I)**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES,  
BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**

COMMERCIAL PROPOSAL or TECHNICAL PROPOSAL *(Please specify)*

ORIGINAL or COPY *(Please specify)*

**“NOT TO BE OPENED”**

Both originals and copies of Technical and Commercial Proposals are to be addressed in a larger envelope and shall be labelled as follows:

**NAME OF TENDERER**  
**ADDRESS OF TENDERER**

**BID FOR PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED**  
**PTTEP INTERNATIONAL LIMITED**  
**PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

CALL FOR TENDER NO: THC19-5246 (T&I)

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES,**  
**BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**

**“NOT TO BE OPENED”**

**TO: MR. ANUSORN WUTHIJAROEN**  
**VICE PRESIDENT, GLOBAL SUPPLY CHAIN, PROCUREMENT AND**  
**CONTRACTS DEPARTMENT**  
**(For Mr. Chindanai Preuksapanich)**

**PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED**  
ENERGY COMPLEX BUILDING A, FLOORS 6, 19-36  
555/1 VIBHAVADI RANGSIT ROAD  
CHATUCHAK, BANGKOK 10900  
THAILAND

(PTTEP'S MAILROOM, PARKING 2)

- 6.6 The TENDER shall be addressed to COMPANY in such a manner that it reaches COMPANY's mailroom, Bangkok office before the closing date and time mentioned in Item 2 above. The TENDER that arrives after such closing date and time may not be considered.
- 6.7 It is TENDERER's responsibility to send along a document transmittal/delivery form and obtain from COMPANY's addressee a receipt for the delivery of the TENDER before the closing date and time. Without such receipt, no claim will be examined.
- 6.8 TENDERER is advised that by mailing its TENDER, it runs the risk of envelopes being accidentally opened which would make the TENDER invalid. COMPANY would strongly recommend avoiding normal mailing and giving preference to the use of a reputable courier service.
- 6.9 The TENDER which is incomplete or vague shall not be considered.
- 6.10 COMPANY does not intend to organize site visit prior to submission of TENDERS.
- 6.11 **Any financial or commercial matters that in any way related to TENDERER's Commercial Proposal must only specify in the Commercial Proposal. Also, these matters shall not be transmitted by e-mail or fax unless specifically instructed otherwise by COMPANY.**
- 6.12 **COMPANY will not consider the TENDER from TENDERER who fails to meet the technical critical requirements below:**

*Compliance with Instructions to TENDERER (ITT) and Contract Terms*

- TENDERER shall comply with this ITT and agree on Contract's terms and condition.
- TENDERER shall comply with Integrity Pact for Cooperation to prevent and anti-corruption for Government agency/State-Owned Enterprise/Public Organization and Private Sector (refer to form in attachment 1 (Thai Version) of this ITT).

### Pre-Qualification

- TENDERER shall be qualified under COMPANY pre-qualification system for the respective Work Category.

### Financial and Business Ethics

- Must not be in bankruptcy OR receivership OR insolvent OR in administration/operating under supervision OR court ordered reorganization OR having high risk according to COMPANY financial review.
- Must not be considered as currently being in material breach of a contract with COMPANY.
- Must not have any significant dispute contractual claims and/or major dispute change orders outstanding against COMPANY.
- Must not have any judgements, legal or arbitration proceedings or suits pending or outstanding that may be considered by COMPANY to affect the ability of the TENDERER to perform the Work in the case of award.
- Must have Moody's credit rating B3 or higher.
- Must have equity greater than USD 14.9 million for the latest financial year. Otherwise, TENDERER shall provide financial mitigation in a form of a performance security (issued by a reputable bank) or a parent company guarantee or cash to assure work performance and minimal disruption to operations.

### Schedule of Work

- TENDERER proposed the minimum level 2 schedule of work which complies with Company's Key Dates and Completion Dates in Exhibit C for installing of minimum six (6) up to fifteen (15) WHPs and pipelines (7 km each pipeline) per one (1) installation year.

### Marine Spreads Capability and Availability

- TENDERER proposed sufficient number of *Key Marine Spreads* with acceptable capabilities (lifting, laying, diving, etc.) for installing of minimum six (6) up to fifteen (15) WHPs and pipelines (7km per each pipeline) within one (1) installation campaign (March – October).
- At least one (1) no. of the following key barges/vessels shall be owned by TENDERER.
  - (1) Derrick Lay Barge/Vessel or
  - (2) Pipe Lay Barge/Vessel & Heavy Lift Barge/Vessel

For clarity, the proposed barge(s)/vessel(s) owned by TENDERER shall be capable of performing both WHP installation and pipeline laying.

Remark: “*Key Marine Spreads*” shall include Derrick Lay Barge/Vessel, Pipe Lay Barge/Vessel & Heavy Lift Barge/Vessel, Accommodation Work Barge/Vessel and/or Diving Support Vessel (DSV) as required for wellhead platforms, pipelines and subsea tie-in spools installation works.

### Experiences/ Project References

- TENDERER shall demonstrate that TENDERER has performed at least two (2) *Multi-Platform Offshore Installation Projects* on T&I scope as a main contractor within the last seven (7) years.
- In case TENDERER proposes to subcontract the major parts of the works, i.e. Engineering and Fabrication, TENDERER shall demonstrate that his proposed subcontractor(s) have performed at least two (2) *Multi-Platform Offshore Installation Projects* within the last seven (7) years. The commitment letter(s) of the proposed main subcontractor(s) shall be provided. The letter(s) shall clearly indicate that TENDERER will be supported by the subcontractor(s) throughout the contract period.
- TENDERER shall demonstrate that TENDERER has performed at least two (2) *Pipeline Installation Projects* on T&I scope within the last seven (7) years.

Remark: For clarity, “*Multi-Platform Offshore Installation Project*” shall mean a project to install at least two (2) Offshore Platforms (with minimum topside weight of 700t) in one installation campaign. Offshore

Platforms mean Wellhead Platforms or Central Processing Platforms or Living Quarters Platforms.

“*Pipeline Installation Project*” shall mean a project to install at least one (1) No. of pipeline with minimum size of 10” and minimum length of 7km.

Execution Plan for FSO Pipeline

- TENDERER shall propose marine spread with acceptable capabilities (rigid pipe laying, flexible pipe laying, diving, etc.) for installing FSO Pipeline and performing tie-in according to requirements in Annex 13 of Exhibit A.
- TENDERER shall propose schedule of work which comply with COMPANY’s Completion Dates in Exhibit C: Work Time Schedule for installing FSO Pipeline and Tie-ins.

6.13 COMPANY may not consider the TENDER from TENDERER who fails to meet the technical general requirements below:

Project Management Execution

- PMT Organization: All parts of the work scope is accounted for adequate and suitable and distributed clearly between each party.
- Work Location: Work locations are clearly defined, adequate, suitable, manageable and accessible for each phase of project.
- Interface Management: Plans and responsible matrix for interface management between TENDERER and main Subcontractors are adequate and clearly defined.

Engineering Execution

- Engineering Capability: TENDERER or his Engineering Sub-contractor shall demonstrate that his engineering team has performed T&I Engineering and Pipeline Engineering for at least two (2) similar or more complicated offshore projects (each T&I and Pipeline) during the last seven (7) years. In case of engineering sub-contractor, TENDERER shall provide commitment letter.
- Engineering Manpower: TENDERER shall demonstrate reasonable manpower histogram and/or sufficient manpower resources for each discipline.
- Lead Engineer Experience: TENDERER shall propose capable Lead T&I Engineer who has performed similar or more complicated projects as lead engineer more than two (2) years and also have overall experience at least ten (10) years in Engineering works.
- Engineering Deliverables: TENDERER shall clearly demonstrate his understanding in engineering scope of work and his compliance with COMPANY’s Standards and Software requirements and also provide effective execution plan to achieve all engineering deliverables.

Procurement Execution

- Procurement Organization & Manpower: TENDERER shall propose Procurement Organization chart with sufficient and experienced personnel.
- Procurement Procedures/Plan: TENDERER shall propose clearly defined procurement procedures and plan including key procurement milestones, i.e. RFQ, PO, ROS dates, of all major equipment and long lead materials with proper control & monitoring strategy and contingency plan in order to meet and integrate with Construction schedule.

Offshore Work Execution

- T&I Capability: TENDERER shall propose detailed, reasonable and logical organization and resources plan to meet the project requirements in the following elements – T&I Organization, T&I Key Personnel Level 2 as per Exhibit K Annex 2 (i.e. Lead T&I Engineer, Deputy Offshore Construction Manager), Equipment on board for T&I works, Manpower Plan and Supply Base.

- Offshore Installation Plan: TENDERER shall propose clear, reasonable and logical offshore installation plan regarding project requirements in the following elements – Scope of Offshore Work, Work Sequence and Installation Procedure.

#### Personnel Resources

TENDERER's proposal of organization has sufficient key personnel and qualified manpower distributed to complete the work. Key and lead personnel have ample experience in similar or larger scales of T&I offshore projects.

- Project Manager: overall related experience > fifteen (15) years & minimum three (3) years in project manager role
- Engineering Manager: overall related experience > ten (10) years & minimum two (2) years in manager role
- Procurement Manager: overall related experience > ten (10) years & minimum two (2) years in manager role
- Project Control Manager: overall related experience > ten (10) years & minimum two (2) years in manager role
- Offshore Installation Manager: overall related experience > ten (10) years & minimum two (2) years in manager role

#### Quality Assurance/Quality Control

- Quality Management System: TENDERER and his key subcontractors are certified to ISO 9001 or ISO 29001 by an accredited certification body with the scope of certification similar to the scope of work to be performed for each worksite.
- Project Quality Organization & Manpower: TENDERER shall propose Project Quality Organization chart with sufficient and experienced qualified personnel. The following Key and lead personnel have ample experience in the field and exposure to Offshore Wellhead Platform or more complicated projects for oil and gas industry.
  - a) QA/QC Manager: overall related experience > twelve (12) years & minimum three (3) years in QA/QC manager role
  - b) QA/QC Engineer: overall related experience > seven (7) years
  - c) Welding Engineer: overall related experience > seven (7) years
  - d) Lead Procurement QA/QC Engineer: with overall related experience > ten (10) years
- QA/QC Documents: TENDERER shall provide following comprehensive QA/QC documents – 1) Preliminary Project Quality Plan for all T&I phases, 2) Inspection & Test Plan (ITP) utilized in recent or ongoing projects for T&I phase related to structural steel work, piping work, and offshore pipeline installation work, and 3) QA/QC Procedures as required in ITT and Form of Contract.

#### Safety, Security, Health, and Environment

- TENDERER has capability to meet COMPANY's SSHE Requirements.

**6.14 Commercial proposal must be submitted in the form provided in this TENDER DOCUMENTS (Exhibit B) without modification, otherwise such Proposal will not be considered by COMPANY.**

## **7. BASIS OF TENDER**

The TENDER shall be prepared and submitted strictly in accordance with these Instructions to TENDERERS and the content of the TENDER shall be described below;

## 7.1 TENDER Original Proposals

### 7.1.1 The Technical and Contractual Proposal

The format and content of the Technical and Contractual Proposal shall be as per Appendix 1 Volume 1. The Technical and Contractual Proposal shall not contain any prices or price information.

### 7.1.2 The Commercial Proposal

The format and content of the Commercial Proposal shall be as per Appendix 1, Volume 2. The Exhibit B in Form of Contract shall be utilized. The Commercial Proposal shall not contain any QUALIFICATIONS.

TENDERER shall separately submit Technical and Commercial Proposals in the manners set out in Appendix 1 and Appendix 2.

## 7.2 Supplementary Proposals (Delta cost impact after Technical, Commercial and Contractual Clarification)

TENDERER shall not submit the Priced Supplementary Proposal unless requested by COMPANY to do so.

After TENDERER has submitted a modified TENDER in accordance with below Item 9, upon completion of the TENDER clarification process (including Technical, and Contractual Clarification), TENDERER will be requested by COMPANY to submit Supplementary Proposal which includes:

- a) Unpriced Supplementary Proposal which includes:
  - i) Confirmation letter as per ITT Annex 9,
  - ii) Unpriced Delta Price Adjustment Sheets for normalization items issued via COMPANY GENERAL CLARIFICATIONS so that all TENDERERS are pricing on the same basis,
  - iii) Unpriced Delta Price Adjustment Sheets for TENDER CLARIFICATIONS,
  - iv) Unpriced Delta Price Adjustment Sheets for QUALIFICATIONS (Technical and Contractual) with TENDERER's initial on each page,
  - v) Updated final Certificate of Design Endorsement (if any),
  - vi) Any other documents or information that COMPANY may request.

The purpose of the Unpriced Supplementary Proposal is to document conclusions reached during the Tender Clarification Process and the COMPANY's final position with regard to the clarifications. TENDERER will be given opportunity to indicate either Y/N for cost impact against each.

TENDERER shall confirm its agreement to the Unpriced Supplementary Proposal, if and when requested by COMPANY, by submission of the Confirmation Letter, the final updated Design Endorsement Certificate and the TENDER CLARIFICATIONS, QUALIFICATIONS, and COMPANY GENERAL CLARIFICATIONS sheets with each page signed by TENDERER's authorized representative and stamped with TENDERERS official company stamp.

### **Delta Prices shall not be submitted in the Unpriced Supplementary Proposal.**

Failure of a TENDERER to confirm its agreement to the Unpriced Supplementary Proposal, as aforesaid without QUALIFICATION, deviation or amendment within 72

hours of being requested to do so by the COMPANY may result in disqualification and rejection of the TENDER.

- b) Priced Supplementary Proposal, which is the same as the agreed clarification documents without modifications other than the inclusion of the individual Delta Cost Impact for all the items previously indicated by TENDERER in its Unpriced Supplementary Proposal as having cost impact. Priced Supplementary Proposal must be initialed on each page by TENDERER. TENDERER shall also update and submit Exhibit B (Form of Contract) and all relevant Annexes included the cost impact from agreed Clarifications. TENDERER to be final Commercial Proposal.

TENDERER shall bear all responsibilities for any errors, omissions, discrepancies contained in the Supplementary Proposal submitted by TENDERER to incorporate cost impacts from agreed clarifications. The updated Exhibit B (Form of Contract) after incorporated agreed clarifications will be used as final to perform Commercial Evaluation Result. TENDERER shall ensure his correction and contain no error for his TENDER submission.

**Note:**

1. Delta Cost Impact is the difference of cost (whether negative or positive) between commercial proposal after agreed technical and contractual clarifications and original commercial proposal.
2. The individual Delta Cost Impact shall relate to and shall reflect the impact of the final responses from COMPANY on each individual qualification as per the Unpriced Supplementary Proposal.
3. Any items not priced will be considered as included in the relevant item in the original commercial proposal for such items.

The Supplementary Proposal shall be submitted the original documents as mentioned above Item 7.2 sealed in an envelope.

TENDERER is advised that any attempt to submit a revised TENDER at the time of submitting the Supplementary Proposal without COMPANY's request will automatically disqualified TENDERER.

## **8. COMMERCIAL PROPOSAL**

TENDERER's Commercial Proposal shall be established by taking into account all the information and provisions included in the TENDER DOCUMENTS (including, but is not limited to, PART II - Form of Contract) as well as subsequent clarifications between COMPANY and TENDERER.

Moreover, TENDERER shall obtain all information and take into account all circumstances, regarding proposed operations and their location which may affect its costs and expenses included in its TENDER.

TENDERER shall also initial all the pages of its TENDER and endorse with their company stamp all pages that contain prices, alterations and signatures.

## **9. MODIFIED TENDER**

- 9.1 If TENDERER wishes to submit a modified TENDER on the basis of the modifications to the TENDER DOCUMENTS, in particular the Form of Contract and its attachments, it may do so but COMPANY will not consider such TENDER unless it fully complies with the following conditions:



- all such modifications shall be presented in a precise alternative wording; generalizations or other imprecise languages will not be considered; and
- each modification shall be presented in a “QUALIFICATIONS” (in the form set out in ITT Annex 8), showing clearly the impact, if any, on price and schedule.

9.2 For various technical options, TENDERER may submit those options in its modified TENDER.

9.3 COMPANY reserves the right to give precedence to those TENDERERS who submit their TENDERS without modifications.

## **10. PERIOD OF TENDER VALIDITY**

The TENDER shall remain valid for a period of **at least 8 months after the closing date and time** set out in Item 2 above. However, COMPANY reserves the right to request the extension of the validity period.

## **11. COST OF TENDERING**

All direct and indirect costs and expenses incurred by the TENDERER for preparation, submission and clarification of the TENDER, attending clarification meetings and any visits and all other aspects whatsoever shall be to TENDERER’s own account. In no case will any cost or expense incurred by TENDERER in the preparation, submission, and clarifications of its TENDER be borne by COMPANY.

## **12. COMPLIANCE WITH INSTRUCTIONS**

The TENDER shall be submitted in accordance with all instructions contained in PART I – INSTRUCTIONS TO TENDERERS, especially **Item 6 (TENDER SUBMISSION)**, **Item 7 (BASIS OF TENDER)**, **Item 10 (PERIOD OF TENDER VALIDITY)** and **Item 14 (CONFIDENTIALITY)**. Any TENDER which does not comply with such instructions may be disqualified and may not be considered by COMPANY.

## **13. WITHDRAWAL OF TENDER**

The TENDER submitted by TENDERER shall not be withdrawn during the period of its validity stipulated in Item 10. If TENDERER does or attempts to do so, it may be debarred from COMPANY’s future call for tender.

## **14. CONFIDENTIALITY**

14.1 The TENDER DOCUMENTS are confidential, contain proprietary information belonging to COMPANY and may only be reproduced or disclosed by TENDERER for the purpose of preparing its TENDER, subject however to prior written permission of COMPANY.

14.2 The TENDER DOCUMENTS shall remain the property of COMPANY.

14.3 TENDERER and TENDERER’s AFFILIATES, associated companies, Subcontractors and Vendors, shall not make any publicity announcements (press release, news release, media release, press statement / report, internet posting or video release, etc.) concerning any aspect of the project, the Call for TENDER package, the TENDER DOCUMENTS, the TENDER nor the award or non-award of the Contract unless prior written permission is obtained from COMPANY.

Likewise TENDERER’s name and or that of TENDERER’s affiliates, associated companies, Subcontractors and Vendors shall not appear in nor be mentioned in any publicity announcement unless COMPANY is required to disclose such information under laws and/or regulations.

14.4 Failure to comply with the foregoing requirements will result in disqualification and exclusion of a TENDERER from further involvement in the Tender Process if such non-compliance results in harm or damage to the COMPANY and/or its reputation. COMPANY decision in this respect shall be final and not open to challenge by TENDERER.

## **15. OWNERSHIP OF TENDER**

All documents submitted by TENDERER in response to this CFT shall become the property of COMPANY. However, intellectual property in the information contained in such documents shall remain vested in TENDERER. This Item 15 is without prejudice to any provisions to the contrary in any subsequent contract between COMPANY and TENDERERS.

## **16. JOINT VENTURE OR CONSORTIUM**

In addition to the other requirements of these Instructions to TENDERERS, a TENDER submitted by Joint Venture or Consortium shall also comply with the following additional requirements:

- a) The Form of Letter of Submission (Ref. ITT Annex 2) shall be signed by all participants in the Joint Venture or Consortium so as to be legally binding on each participant.
- b) A notarised copy of the Joint Venture Agreement (JVA) or Consortium Agreement (CA) shall be provided in the Technical and Contractual Proposal (part of Appendix 1, Volume 1 Section 7).
- c) The following shall be given in a statement signed by all the participants.
  - The participants shall be jointly and severally liable for the performance of the Contract in accordance with its terms and that in the event that any one of the participants ceases to be a member of the Joint Venture or Consortium, defaults or goes into liquidation then the surviving participant(s) shall have the full obligation to carry out and complete the WORK and shall be empowered to use all resources furnished by any party in the Joint Venture or Consortium and shall be entitled to have any subcontracts assigned to it.
  - The interest of each of the participants under the JVA or CA and the allocation / split of the WORK between the participants
  - The nominated leader/prime Contractor and the name of the participant nominated to act as manager of the Joint Venture or Consortium and who in such capacity is authorized to incur liabilities and enter into a contractual relationship with third parties, to receive instructions and action instructions from COMPANY and to make and receive payments on behalf of the Joint Venture or Consortium.
  - That the declaration given takes precedence over anything which may be contained in the said JVA or CA.
- d) If a participant in the Joint Venture or Consortium is a subsidiary of another company, entity or corporation, a satisfactory ultimate parent company guarantee shall be provided as per the requirements of sub-article 33.2 of the AGREEMENT.
- e) Each of the participants in the Joint Venture or Consortium shall comply with the requirements of these Instructions to TENDERERS.
- f) Each TENDERER, either as main contractor or a consortium or joint venture partner, has the right to submit only one TENDER. In addition, a TENDERER, its affiliate companies, its subsidiaries, its sister company and its parent companies has the right to submit only one TENDER.

## **17. MISCELLANEOUS INSTRUCTIONS**

- 17.1 TENDERER shall be responsible to comply with and be fully aware of all applicable governmental and local laws, regulations, practices, codes and requirements in relation with, but not limited to, safety, taxation and customs, which might affect TENDERER when Tendering, executing the Contract for the SERVICES and provision of the SERVICES.
- 17.2 TENDERER shall clearly specify its position regarding local taxes, with reference to the Form of Contract (PART II of the CFT) and shall indicate (i) the official name of the TENDERER who, in case of a successful TENDER, will sign the Contract with COMPANY, (ii) TENDERER's country of registration, and (iii) whether TENDERER has established or not a permanent office or local company in Thailand.
- 17.3 TENDERER's legal status, country of incorporation and country of residence for tax purposes (if different from country of incorporation) must be disclosed. Financial statement and valid TENDERER Registration Certificate which clearly indicates its classification of business field/sub-field and qualification of expertise have to be provided.
- 17.4 No TENDER shall be conditional upon the availability to TENDERER of goods, labor, equipment, material or any other resources required for the performance of the SERVICES. If requested by COMPANY, TENDERER shall provide supporting documents to evidence the availability of same.
- 17.5 TENDERER's information as requested in Items 17.2 – 17.4 shall be an essential part of the TENDER and, in the case of a successful TENDER, may be incorporated as appropriate in the Contract between COMPANY and TENDERER.
- 17.6 The TENDER and all attachments, information, notes, catalogues, and any other written material shall be in the English language.
- 17.7 COMPANY reserves the right to visit, inspect and satisfy itself regarding the premises, facilities, equipment and other resources of TENDERER, and to carry out a technical and commercial appraisal prior to awarding a Contract.
- 17.8 After the closing date and time set out in Item 2, COMPANY reserves the right to request TENDERER for any further information it may deem necessary to evaluate the TENDER.

## **18. ACCEPTANCE OF TENDER AND FINAL AWARD**

- 18.1 TENDERER understands and agrees that COMPANY shall be under no obligation to accept the lowest or any TENDER. The decision made by COMPANY on this matter shall be final and shall not be contested or opposed by TENDERER. COMPANY shall not enter into correspondence with TENDERER regarding the reasons for non-acceptance of the TENDER.
- 18.2 COMPANY reserves the right of accepting any portion of the TENDER as COMPANY may decide, unless TENDERER expressly stipulates to the contrary in its TENDER.
- 18.3 No TENDERER may consider itself successful unless and until it receives written notice to that effect from COMPANY.
- 18.4 COMPANY may notify its acceptance of the unmodified or modified TENDER, as the case may be, by sending TENDERER a Letter of Intent to Award ("LOI"). In such case, TENDERER shall confirm its agreement to the terms and conditions of the LOI within two (2) days of receipting it. Then the LOI shall constitute a binding agreement between COMPANY and TENDERER pending completion and exchange of formal Contract.

## **19. GOOD CORPORATE GOVERNANCE AND BUSINESS ETHICS**

PTTEP Group operates in a lawful, transparent, fair and accountable manner, as well as in compliance with its Good Corporate Governance Principles and Code of Business Ethics (CG&BE). For the details of CG&BE, please visit

<http://www.pttep.com/en/Aboutpttep/Corporategovernance/CgandbusinessEthics.aspx#topic-179>

In case TENDERER is aware or suspect in good faith that any person acting on behalf of PTTEP Group has been involved in Misconduct (as defined in item 2 of the link below) or suspected Misconduct or may breach the law or violate the CG&BE, please file a report to one of the channels listed in item 7 of the link below. For more information regarding PTTEP group's Reporting & Whistleblowing Regulations, please visit the link below.

<http://www.pttep.com/en/Aboutpttep/Corporategovernance/Reportingandwhistleblowingregulations.aspx>

PTTEP Group is committed to protecting people who report Misconduct in good faith.

**PART I – INSTRUCTIONS TO TENDERERS**

**APPENDIX**

**APPENDIX 1**

**DOCUMENT TO BE INCLUDED IN TENDER**

## **APPENDIX 1**

### **DOCUMENT TO BE INCLUDED IN TENDER**

These below sections are required for TENDERER to complete and submit as part of TENDER package for COMPANY to evaluate TENDERER status, past/current performance and capability against the pre-established criteria. Only compliant TENDERER will be considered for further commercially evaluation.

The documents to be included in the TENDER are as follows:

#### **Volume 1 - Technical and Contractual Proposal**

##### **Section 1 : Letter of Submission (in the Form set out in ITT Annex 2)**

TENDERER shall submit the signed Integrity Pact (Thai Version), affixed with TENDERER company's stamp, in this Section 1 of the Technical and Contractual Proposal

**Section 2 : Legal Documents** - Memorandum of Associate, Affidavit, Power of Attorney, or other documents showing the name of authorized person who can sign on behalf of and bind TENDERER regarding the TENDER and a relevant contract/agreement between COMPANY and TENDERER, copy of tax certificate etc.

**Section 3 : UNPRICED Commercial Terms and Schedule of Rates** in the form as given in Exhibit B and its Annex 1 to 7 of the Form of Contract duly completed with "QUOTED" for quoted items or "NOT QUOTED" for items that are not quoted. **Prices shall NOT be indicated anywhere in the UNPRICED Commercial Terms and Schedule of Rates.** TENDERER shall quote all the rates as specified in Exhibit B and its Annexes 1 to 7 of the Form of Contract for COMPANY's evaluation. Of which marked "NOT QUOTED", TENDERER shall raise QUALIFICATION providing the justification as part of section 4 below.

##### **Section 4 : QUALIFICATIONS** (if any, in the form set out in ITT Annex 8)

TENDERER shall separately prepare and raise any Exception/ Deviation form part of his TENDER as following;

- 4.1 Contractual QUALIFICATIONS
- 4.2 Technical QUALIFICATIONS

##### **Section 5 : Summary TENDER Proposal (Form in ITT Annex 10)**

**Section 6 : Original TENDER bond** in the Form set out in ITT Annex 3, issued by a bank acceptable to COMPANY.

The original Tender Bond shall be enclosed in a separate sealed envelope in the TENDER. A TENDERER who does not include a satisfactory Tender Bond shall be disqualified.

The Tender Bond shall be in the amount of Five Hundred Thousand US Dollars (USD 500,000) and shall be valid for at least eight (8) months from the Tender closing date, or until;

- TENDERER receives notification from the COMPANY that the Contract with the successful TENDERER has been executed, in the case of acceptance, the TENDERER has submitted a satisfactory Performance Bank Guarantee in accordance with sub-article 33.1 of the AGREEMENT, or
- Eight (8) months after the Tender closing date or such extended period as the COMPANY may request,

whichever is the earlier.

The COMPANY may make a call on the Tender Bond and draw down any sum it sees fit on any number of occasions up to the full value of the Tender Bond in the following circumstances if the TENDERER should:

- withdraw his TENDER, without COMPANY's agreement, after the Tender closing date and before the expiry of its period of validity, or if,
- TENDERER refuses to accept the correction of pricing errors and or other errors in his TENDER in accordance with terms of the Call for TENDER Package, or if,
- in the case of acceptance, refuse to execute the formal written CONTRACT, or if,
- fail to provide a satisfactory Performance Bank Guarantee.

COMPANY decision in this matter shall be final and not open to challenge by the TENDERER.

Note: The original Tender Bond must be enclosed in a **separate sealed envelope** marked 'ORIGINAL TENDER BOND' enclosed within the Package containing the original of the TENDER proposal and able to be opened independently.

**Section 7 : Letter of Consortium Partner Formation (If any)**

- 7.1 Partner Formation,
- 7.2 Copy of Signed Consortium Agreement (Period and Terms of Consortium Agreement shall be corresponding to the Bundled Phases 3 T&I WORKS),
- 7.3 Letter of undertaking to provide Parent Company Guarantee (Form in ITT Annex 5).

**Section 8 : Letter of undertaking to provide Performance Bank Guarantee(s) (Form in ITT Annex 4)**

**Section 9 : Design Endorsement Certificate (in form set out in Form of Contract in AGREEMENT/ Annex 5)**

**Section 10 : Financial and Business Ethics**

TENDERER shall provide Financial and Company Information as follows:

- 10.1 Copy of its audited financial statements for the last three (3) years (2017 – 2019),
- 10.2 Corporate organization chart showing relationship with any parent and subsidiary companies,
- 10.3 List of all major shareholders/owners,
- 10.4 List of Company Board of Management/Directors,
- 10.5 TENDERER's legal status, registration number, registered name & address, deed of incorporation and country of residence for tax purposes,
- 10.6 (In case, TENDERER is subsidiary of another company) entity or corporation, the ultimate parent company shall provide information same as listed above

**Section 11 : Schedule of WORK**

TENDERER shall submit the minimum level 2 Schedule of work and related resource histograms which complies with COMPANY's Key Dates and Completion Dates as specified in Exhibit C of the Form of Contract for installing minimum four (4) up to fifteen (15) wellhead platforms and pipelines (7 km each) per one (1) installation year. TENDERER shall submit the schedule of work for following twelve (12) cases.

- Case 1: 4 WHPs and 4 pipelines per installation year
- Case 2: 5 WHPs and 5 pipelines per installation year
- Case 3: 6 WHPs and 6 pipelines per installation year
- Case 4: 7 WHPs and 7 pipelines per installation year
- Case 5: 8 WHPs and 8 pipelines per installation year
- Case 6: 9 WHPs and 9 pipelines per installation year
- Case 7: 10 WHPs and 10 pipelines per installation year
- Case 8: 11 WHPs and 11 pipelines per installation year
- Case 9: 12 WHPs and 12 pipelines per installation year
- Case 10: 13 WHPs and 13 pipelines per installation year
- Case 11: 14 WHPs and 14 pipelines per installation year



- Case 12: 15 WHPs and 15 pipelines per installation year

## Section 12 : Marine Spread Capability, Availability and Ownership

TENDERER shall propose sufficient number of *Key Marine Spreads* with acceptable capabilities (lifting, laying, diving, etc.) for installing fifteen (15) WHPs and fifteen (15) pipelines (7km per each pipeline) within one (1) installation campaign (March – October).

At least one (1) no. of the following key barges/vessels shall be owned by TENDERER.

- Derrick Lay Barge/Vessel or
- Pipe Lay Barge/Vessel & Heavy Lift Barge/Vessel

For clarity,

- the proposed barge(s)/vessel(s) owned by TENDERER shall be capable of performing both WHP installation and pipeline laying.
- “*Key Marine Spreads*” shall include Derrick Lay Barge/Vessel, Pipe Lay Barge/Vessel & Heavy Lift Barge/Vessel, Accommodation Work Barge/Vessel and/or Diving Support Vessel (DSV) as required for wellhead platforms, pipelines and subsea tie-in spools installation works.

Following information shall be provided at a minimum.

### 12.1 MARINE SPREAD Detail

TENDERER shall submit the following details for Key Vessels.

- a) List of Key Vessels as specified in Exhibit K Annex 4 of Form of Contract
  - i) Vessels Name,
  - ii) Description / Capacity,
  - iii) Point of Mobilization/Demobilization,
  - iv) Name of owner,
  - v) Party or Company Managing and / or controlling the vessel,
  - vi) Details of Key Vessel.
- b) Proposed Key MARINE SPREADS specifications, including;
  - i) Crane lifting charts,
  - ii) Survey equipment,
  - iii) Diving Spreads, ROV and facilities,
  - iv) Details of Construction Equipment spreads for each of the Marine Spread,
  - v) Tensioner for pipeline laying,
  - vi) Sea state limitations,
  - vii) Year of built and Class, Ship Particular
- c) Track records of works/ past project experience completed by the proposed Marine Spread.

### 12.2 MARINE SPREAD Capability Assessment

TENDERER shall demonstrate:

- a) The proposed vessels are capable of lifting the jacket, piles, topside, and tie-in spools taking into consideration the weight growth during detailed engineering. A lifting diagram is to be submitted.
- b) The tensioner and pipeline abandonment and recovery equipment is capable of handling the pipelines installation WORK.
- c) Lifting Operation if exceeding 80 percent of lifting capacity TENDERER shall provide;
  - i) Critical lifting operation analysis report verified by third party (as per approved Exhibit J of Form of Contract),

- ii) TENDERER is to note that COMPANY reserve the right to request the critical lifting operation analysis report in any cases, if in doubt to the TENDERER's proposed barge for platform installation.
- d) Pipeline Laying Barge, TENDERER shall provide;
  - i) Tensioner Certificate/ Pull Test Certificate,
  - ii) Static pipelay analysis report for pipeline installation showing the barge, tensioner and related equipment capability to meet requirement as specified in the Exhibit E Annex 1 of Form of Contract,
  - iii) Additional Dynamic analysis shall be provided, if the result of Static Analysis, item ii) above, showing marginal stress (exceeding 79% yield stress). This Dynamic Analysis for pipe laying is needed in order for COMPANY to complete technical evaluation the proposed Pipe Lay Barge capability. The analysis shall consider upside factors i.e. wind/wave/sea state, stinger method, safety margin, including dynamic load and laying method, etc. Incomplete pipeline analysis report may result to disqualify technical compliance in the portion of pipeline laying capability assessment,
- e) Each of the vessels proposed shall be classified in accordance with the requirements of one of the following international registers; Bureau Veritas, Lloyds Register, American Bureau of Shipping, Det Norske Veritas and shall provide a copy of the valid class certification,
- f) If TENDERER proposed Construction Equipment or vessel is not in compliance with COMPANY requirements and specifications, TENDERER shall submit a method statement and time schedule for upgrading the equipment/vessel to comply with the requirements of the COMPANY. All associated time and cost for such upgrade/modification shall be borne by TENDERER.

### 12.3 MARINE SPREAD Availability

TENDERER shall provide;

- a) Commitment letters to assure availability of the Key MARINE SPREADS for the period required by the WORK TIME SCHEDULE.

In case TENDERER allocates Marine Spread part to Subcontractor, the commitment letter of the proposed Subcontractor shall be provided.

## Section 13 : Experiences/ Project References

### 13.1 TENDERER Project Experience

TENDERER/TENDERER's Parent Company shall provide the detailed description of experiences as a main T&I contractor at least two (2) *Multi-Platform Offshore Installation Projects* in past seven (7) years tabulated as follows (TENDERER's promotional brochures and company profiles shall not be admissible):

- a) Name of project,
- b) Client Reference,
- c) Brief description/ scope of work (e.g. CPP or wellhead topsides, jackets, pipelines),
- d) Size and complexity of the projects (e.g. weight & size of topsides/jackets/piles and size & length of pipelines),
- e) Primary geographic location,
- f) Water depth,
- g) Start and completion schedule,
- h) Final schedule deviation (+/- days),
- i) Project value USD.

The above past project experiences/ records shall demonstrate the capability and capacity of TENDERER and/or SUBCONTRACTOR who propose to execute the work for Bundled Phases 3 T&I relevant scopes.

- 13.2 Main Subcontractor Project Experience: In case, TENDERER proposes to subcontract the major parts of the WORK, i.e. Engineering and Fabrication WORK, TENDERER shall demonstrate that his proposed subcontractor(s) have performed at least two (2) *Multi-Platform Offshore Installation Projects* within the last seven (7) years as similar details as Section 13.1 above.
- 13.3 TENDERER shall demonstrate that T&I TENDERER has performed at least two (2) *Pipeline Installation Projects* on T&I scope within the last seven (7) years

For clarity,

*Multi-Platform Offshore Installation Project* shall mean a project to install at least two (2) Offshore Platforms (with minimum topside weight of 700t) in one (1) installation campaign. Offshore Platforms mean Wellhead Platforms or Central Processing Platforms or Living Quarters Platforms.

*Pipeline Installation Project* shall mean a project to install at least one (1) No. of pipeline with minimum size of 10" and minimum length of 7km.

#### **Section 14 : Execution Plan for FSO Pipeline and Tie-ins**

- 14.1 TENDERER shall propose marine spread with acceptable capabilities (rigid pipe laying, flexible pipe laying, diving, etc.) for installing FSO Pipeline and performing tie-in according to requirements in Annex 13 of Exhibit A
- 14.2 TENDERER shall propose schedule of work which complies with COMPANY's Key Dates and Completion Dates in Exhibit C: Work Time Schedule for installing FSO Pipeline and Tie-ins.
- 14.3 TENDERER shall provide execution plan for preparation of pipe-in-pipe line pipe. Following items shall be provided as minimum.
- a ) Location of pipe coating yard
  - b ) Location of yard to produce pipe-in-pipe line pipe
  - c ) Procurement plan for other materials apart from COMPANY's supplied materials.
  - d ) Line Pipe transportation plan

#### **Section 15 : Detailed Execution Proposal**

TENDERER must provide logical execution schemes for all T&I phases, including availability of personnel and organization to manage the project. Execution plan that demonstrate logical sequence and coverage of work, extensive management, accountable resources, and clear structure for interface will be credited more.

##### **15.1 Project Management Execution**

TENDERER shall provide;

- a ) Overall Project Organization: All parts of the WORK is accounted for and distributed clearly between each party covering PMT/ Engineering/ Procurement/ Transportation/ Offshore Installation/ Brownfield Modification/ Offshore Support Base. All parties should be clearly identified, and no part of the scope should be left ambiguous. The summary of overall proposed Project Execution Plan and Strategy shall be provided,
- b ) WORK Location: WORK locations for each part of the WORK are clearly defined, adequate, suitable and accessible,

- c) Interface Management Plan: Plans and responsible matrix for interface management between TENDERER, main Subcontractors and EPC CONTRACTOR are adequate and clearly defined.

## 15.2 Engineering Execution

TENDERER shall provide;

- a) Engineering Capability: Within the last seven (7) years, TENDERER or his Engineering Sub-contractor has performed T&I Engineering, and Pipeline Engineering at least two (2) similar or more complicated offshore projects (each T&I and Pipeline). Details shall contain following, as minimum;
- i) Name of project,
  - ii) Client Reference,
  - iii) Brief description,
  - iv) Summary project record including engineering man-hour by disciplines, specific software used, year/ duration,
  - v) Scope of work,
  - vi) Work location,
  - vii) Organization Chart.

In case TENDERER propose to subcontract Detailed Engineering WORK, TENDERER shall provide a commitment letter from the Engineering Subcontractor confirming his availability to undertake the WORK and providing full details of his organization, his work capacity, resource availability, past experience in this work with client names and dates of projects and description of the work performed and work location as similar details as above Section 14.2 a),

- b) Engineering Manpower: TENDERER shall demonstrate reasonable manpower histogram for each discipline.

TENDERER shall include tabulation in graphical form showing TENDERER's committed and prospective engineering work-load and forecast work-load throughout the CONTRACT period. All projects shall be individually identified by location and project operator. The tabulation shall be expressed in terms of in-house engineering manpower and outsourcing manpower,

- c) Lead Engineer Experience: TENDERER shall propose together with CV of capable Lead T&I Engineer who has performed similar or more complicated projects as lead T&I engineer more than two (2) years and having overall experience at least ten (10) years in T&I Engineering works.
- d) Engineering Deliverables:
- i) TENDERER shall demonstrate understanding of detailed engineering work. If any changes of engineering deliverables and software (listed in Exhibit A Annex 1 and Annex 2 of Form of Contract), TENDERER shall utilize the same format/ content and shall submit Exception/ Deviation for COMPANY Review,
  - ii) TENDERER shall provide Engineering Execution Plan, including engineering project organization chart, work schedule, work location/ allocation, engineering interfacing plan, quality control of engineering work, list of sub-contractor, third-party study plan, etc.

## 15.3 Procurement Execution

TENDERER shall provide;

- a) Procurement Capability: TENDERER shall provide past project experiences and records to procure Long Lead Items for similar wellhead platform/pipeline installation or more complicated project. Reference project details shall contain following, as minimum;
  - i) Name of project,
  - ii) Client Reference,
  - iii) Brief description,
  - iv) Summary project record including list of procured items, procurement services man-hour, year/ duration,
  - v) Scope of work,
  - vi) Work location,
  - vii) Organization Chart.
- b) Procurement Organization & Manpower: TENDERER shall propose Procurement Organization chart with sufficient and experienced personnel including CV, TENDER shall include tabulation in graphical form showing TENDERER's committed and prospective procurement services work-load and forecast work-load throughout the CONTRACT period. All projects shall be individually identified by location and project operator,
- c) Procurement Procedures/Plan: TENDERER shall propose clearly defined Procurement procedures and plan including key procurement milestones, i.e. RFQ, PO, ROS dates, of all long lead materials with proper control & monitoring strategy and contingency plan in order to meet and integrate with Construction/Installation schedule.

#### 15.4 Offshore Work Execution

TENDERER shall provide;

- a) T&I Capability: TENDERER shall propose T&I Organization chart, Manpower Plan including Offshore key personnel as per Exhibit K Annex 2, T&I equipment, and supply base are adequate, sufficient, available and committed to the project.
- b) Offshore Installation Plan: TENDERER shall propose Offshore Installation Plan demonstrate the Schedule, clearly elaborated, completed, Scope for offshore work, and work sequences are logically planned. Proposed offshore methodology shall be in compliance with COMPANY's requirements. TENDERER shall provide detailed description of methods/procedures to be used for the performance of the WORK, including transportation, mobilization, site investigation and surveys, installation, hook up and demobilization. The following document shall also be provided by TENDERER.
  - 1) Method statements with supporting sketches where applicable to demonstrate their intended method of operation and WORK plan which shall include but not limited to the following:
 

Structures

    - i) Jacket installation procedures - including, lifting, up ending and levelling, pile driving, pile monitoring, pile driveability
    - ii) Topside installation procedure - Lifting and setting
    - iii) Transportation procedures including layout and general arrangement drawing of components

Pipelines

    - i) Pipeline installation procedure including pipe stress analysis (Suitability of tensioners) Pipeline, free span correction, pipe-lay start-up and lay-down, pipe-lay, lay-down tensions and recovery of wet buckled pipeline.
    - ii) Transportation procedure

- iii ) Metrology for ties-in spools including lifting and hydrotest
- 2) Onshore Support: Availability and quality of onshore support base and logistic for offshore work is sufficient and in accordance with COMPANY's requirements. Onshore base, including;
- i) Details of any onshore base to be used in support of the offshore operations
  - ii) Details of ports from which the MARINE SPREADS will be serviced/supplied
  - iii) Outline procedures for logistics, personnel movements etc.
- c ) With reference to Section 3.0 Composition of MARINE SPREAD in Annex 4 of Exhibit B, TENDERER shall propose MARINE SPREAD Group for different required number of wellhead platforms/piplines per installation year by filling in the below table.

Required No. of WHP and PL per Installation Year	MARINE SPREAD Group (Referred to Section 3.0 of Exhibit B Annex 4)
4	"TENTEDER to fill-in"
5	"TENTEDER to fill-in"
6	"TENTEDER to fill-in"
7	"TENTEDER to fill-in"
8	"TENTEDER to fill-in"
9	"TENTEDER to fill-in"
10	"TENTEDER to fill-in"
11	"TENTEDER to fill-in"
12	"TENTEDER to fill-in"
13	"TENTEDER to fill-in"
14	"TENTEDER to fill-in"
15	"TENTEDER to fill-in"

## Section 16 : Personnel Resources

TENDERER shall provide resumes of the Contractor Representative and Key Personnel (both Level 1 and Level 2) as identified in Exhibit K and TENDERER's project detailed organization charts in Section 15.

TENDERER proposal of organization has sufficient key personnel and qualified manpower distributed to complete the work. Key and lead personnel have ample experience in similar or larger scales of T&I offshore projects, for example;

- a ) Project Manager: overall related experience > fifteen (15) years & min. three (3) years in Project Manager Role
- b ) Engineering Manager: overall related experience > ten (10) years & min. two (2) years in Manager Role
- c ) Procurement Manager: overall related experience > ten (10) years & min. two (2) years in Manager Role
- d ) Project Control Manager: overall related experience > ten (10) years & min. two (2) years in Manager Role
- e ) Offshore Installation Manager: overall related experience > ten (10) years & minimum two (2) years in manager role

## Section 17 : Quality Management

TENDERER shall submit:

- 17.1 Quality Management System: TENDERER and his key sub-contractor are certified to ISO 9001 or ISO 29001 by an accredited certification body with the scope of certification similar to the scope of work to be performed for each Worksite.
- 17.2 Project Quality Organization & Manpower: TENDERER shall propose Project Quality Organization chart with sufficient and experienced qualified personnel for each Worksite. The following key and lead personnel have ample experiences in the field and exposure to Offshore Wellhead Platform or more complicated projects.
- a) QA/QC Manager: with overall related experience > twelve (12) years & min. three (3) years in QA/QC Manager Role
  - b) QA/QC Engineer: with overall related experience > seven (7) years
  - c) Welding Engineer: with overall related experience > seven (7) years
  - d) Lead Procurement QA/QC Engineer: with overall related experience > ten (10) years
- 17.3 QA/QC Documents: TENDERER shall provide well-organized QA/QC procedures and preliminary Project Quality plan for each phase of T&I works and integrated into proposed execution schedule. Competent Quality Control Plan and Inspection & Test Plan (ITP) utilized in recent or ongoing projects for structural steel work and piping work shall be provided.
- 17.4 TENDERER's Quality Manual
- 17.5 Procedures list covering all project activities including management, engineering, procurement and fabrication.

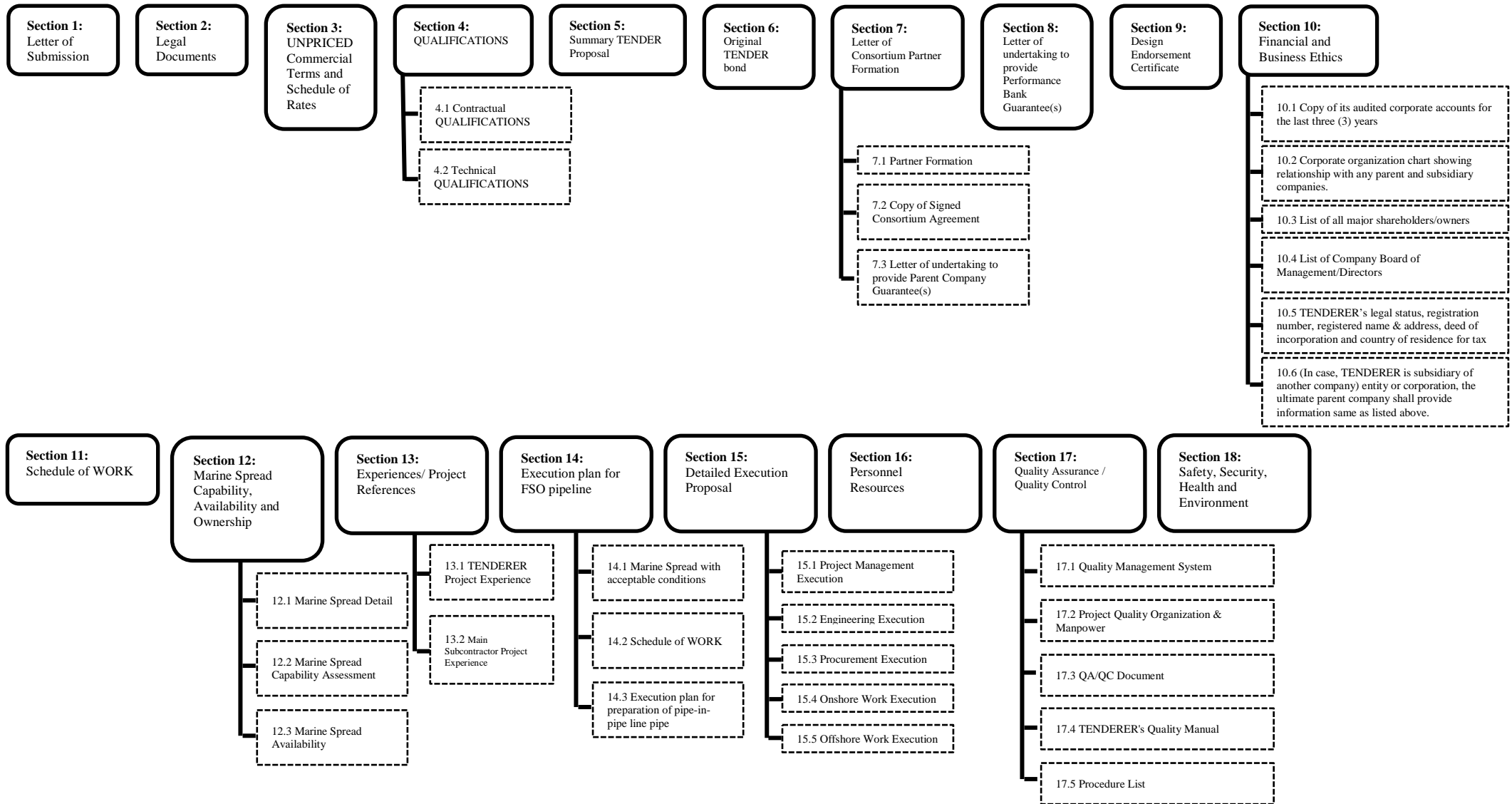
## **Section 18 : Safety, Security, Health and Environment**

TENDERER shall submit as per requirements provided in the ITT Annex 11: Contractor SSHE Capability Assessment Questionnaire. TENDERER shall provide SSHE documentation based on his review of Form of Contract Exhibit L and associated CONTRACT requirements.

In all cases SSHE documentation provided by TENDERER at TENDER stage, if successful, is not deemed COMPANY approval on the basis of award. Further upgrade may be necessary in achieving COMPANY requirements, compliance with Instructions to TENDERER (ITT) and Contract Terms.

**Instruction for Folder (electronic copy) Compilation of Volume 1 - Technical and Contractual Proposal**

TENDERER shall provide the PDF and including all the native files (\*.doc, \*.xls, \*.ppt) along with his TENDER submission as following structure.





**Volume 2 - Commercial Proposal**

Commercial Terms and Schedule of Rates (in the Form as given in Exhibit B of the Form of Contract duly completed with price proposal) shall comprise:

1. Lump Sum Price Breakdown by Work Package (Form in Exhibit B Annex 1)
  - a) Sub Work Unit 1.1 Project Management and Services & Facilities to COMPANY, for Services and Facilities to COMPANY TENDERER shall fill in the Lump Sum price in the Exhibit B Annex 1 for scope identified as per Exhibit B Annex 7 (Form of Contract). For part under Services and Facilities to COMPANY which has been identified as “Call Off”, TENDERER shall not price it as part of Sub Work Unit 1.1 which type and quantity will be defined by COMPANY at execution stage, refer to Exhibit B Section 3.5.2 (Form of Contract).
  - b) In order to promote and ensure effective SSHE management for the PROJECT, Sub Work Unit 1.2 SSHE Management and Execution shall be priced based on mechanism below

*Sub Work Units for SSHE Management and Execution = 1.5% of total value of WU2 to WU6 under each Work Package*

- c) In order to promote and ensure effective Quality management for the PROJECT, Sub Work Unit 1.3 Quality Management and Execution shall be priced based on mechanism below

*Sub Work Units for Quality Management and Execution = 1% of total value of WU2 to WU6 under each Work Package*

2. List of Prices for Optional Items (Form in Exhibit B Annex 2)  
TENDERER shall fill in the given table specified in Exhibit B Annex 2 (Form of Contract) and submit without modification of format.
3. Work Unit Rates for Pricing CHANGE ORDERS (Form in Exhibit B Annex 3)  
TENDERER shall fill in the given table specified in Exhibit B Annex 3 (Form of Contract) and submit without modification of format.
4. MARINE SPREAD RATES for Pricing CHANGE ORDERS (Form in Exhibit B Annex 4)  
TENDERER shall fill in the given table specified in Exhibit B Annex 4 (Form of Contract) and submit without modification of format. In addition, TENDERER shall propose the composition list of Marine Spread together with the rates and shall be finalized at CONTRACT finalization.
5. Time Unit Rates for Pricing CHANGE ORDERS (Form in Exhibit B Annex 5)  
TENDERER shall fill in the given table specified in Exhibit B Annex 5 (Form of Contract) and submit without modification of format.
6. Services and Facilities to COMPANY (Form in Exhibit B Annex 7)  
COMPANY provides the lists and types of Services and Facilities for COMPANY as part of Form of Contract, TENDERER shall input unit rate for each type of services and facilities that are to be applied by Call Off Basis, refer to Exhibit B Section 3.5.2 (Form of Contract).

The Call for TENDER included source files for the TENDER Package Volume 2 (Commercial Proposal), TENDERER shall utilize these files in preparing its TENDER.

TENDER Package Volume 2 (Commercial Proposal) shall solely comprise information as listed above duly completed with TENDERER’s prices and rates. No other information will be submitted in this package.

All prices contained in TENDER shall be in US Dollars (USD). The Prices and Rates shall be fixed and firm for the duration of the CONTRACT.

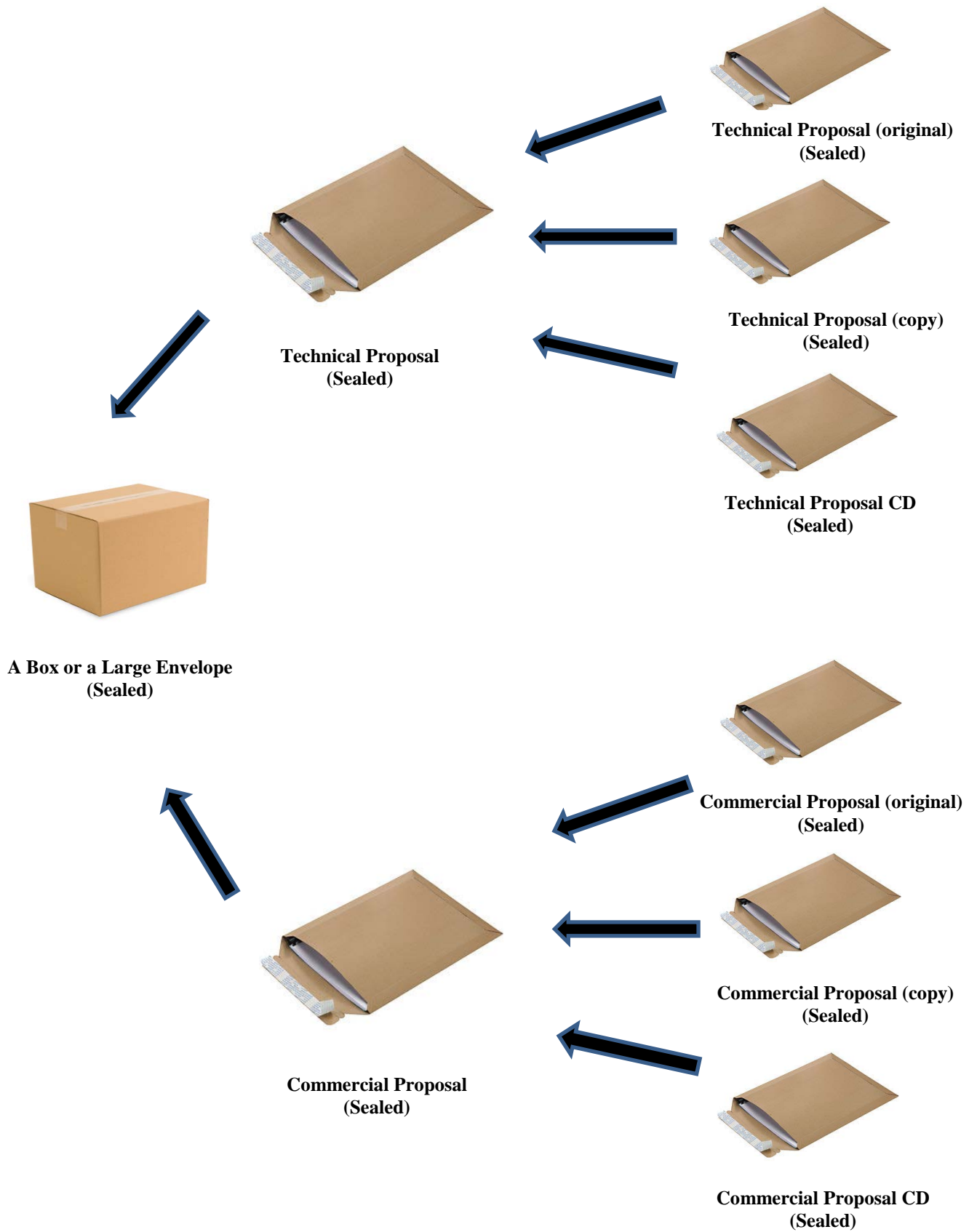
TENDER Package Volume 2 shall comprise a paper and electronic copy which shall be the relevant native files provided in the Call for TENDER as completed by TENDERER to produce the paper copy. The original and all paper copies of the TENDER shall include an electronic copy (pdf and native file i.e. \*. doc, \*. xls as applicable) of the TENDER.

## **APPENDIX 2**

### **HOW TO SUBMIT TENDER**

**APPENDIX 2**

**HOW TO SUBMIT TENDER**



The following mention shall be indicated on the top left corner of each sealed envelope:



**NAME OF TENDERER**

**BID FOR PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

**CALL FOR TENDER NO: THC19-5246 (T&I)**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES,  
BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**

**COMMERCIAL PROPOSAL or TECHNICAL PROPOSAL (Please specify)**

**“NOT TO BE OPENED”**

The following mentions shall be indicated on the top left corner of a box or a large envelope:



**NAME OF TENDERER**

**ADDRESS OF TENDERER**

**BID FOR PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

**CALL FOR TENDER NO: THC19-5246 (T&I)**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES,  
BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**

**“NOT TO BE OPENED”**

**TO: MR. ANUSORN WUTHIJAROEN  
VICE PRESIDENT, GLOBAL SUPPLY CHAIN, PROCUREMENT AND  
CONTRACTS DEPARTMENT  
(For Mr. Chindanai Preuksapanich)**

**PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED**

ENERGY COMPLEX BUILDING A, FLOORS 6, 19-36  
555/1 VIBHAVADI RANGSIT ROAD  
CHATUCHAK, BANGKOK 10900  
THAILAND

(PTTEP'S MAILROOM, PARKING 2)

**APPENDIX 3**

**SUMMARY FOR TENDERER**

## APPENDIX 3

### SUMMARY FOR TENDERER

Call for Tender for Bundled Phases 3 Project for Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins includes two TENDER packages: (1) Engineering, Procurement and Construction (EPC) (Installation in 2022-2026) and (2) Transportation and Installation (T&I) (Installation in 2022-2024). TENDERER shall receive TENDER package specifically for their confirmation in previous EOI in early November 2019. This annex is to summarize key points for TENDERER to be aware during preparing TENDER document.

#### 1. TENDER document

This TENDER document (THC19-5246) is only applicable for Transportation and Installation scope for Bundled Phases 3 of Wellhead Platforms, Associated Pipelines, Brownfield Modification and Tie-ins for Installation in 2022-2024.

COMPANY will only consider the TENDER from TENDERER who receives the CFT Package.

#### 2. Confirmation from EOI

TENDERER already signed and understand in EOI as follows:

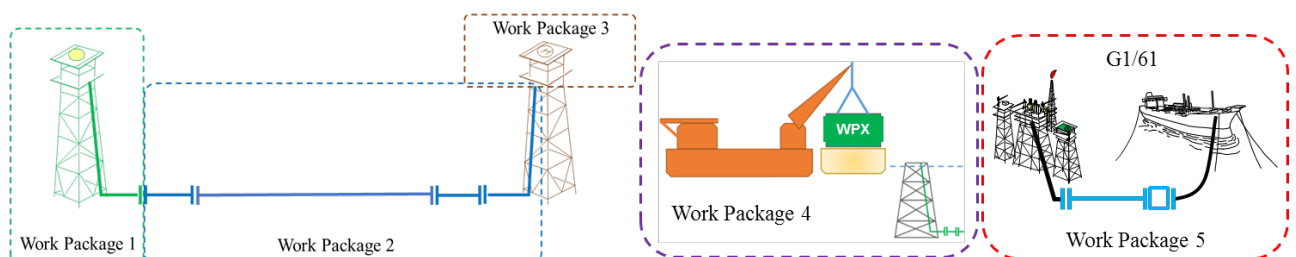
- This TENDER is conducted with only TENDERER who own a Derrick Lay Barge or a Pipe Lay Barge and Heavy Lift Barge.
- For Joint Venture or Consortium, all parties shall pass Pre-Qualification process.
- Any changes of TENDER entity confirmed during EOI in early November 2019 are not acceptable for participating the TENDER and/or disqualify for the TENDER.
- Each TENDERER (including its affiliated companies, its subsidiaries, its sister company and its parent companies), either as a main contractor or a consortium or joint venture partner, has the right to submit only one proposal for each TENDER Package.
- COMPANY intends to carry out evaluation for both EPC and T&I TENDERS together to select tenderer(s) who offer the best benefits to COMPANY in terms of total project cost.
- A TENDERER (including Joint Venture or Consortium, its affiliated companies, its subsidiaries, its sister company and its parent companies) who is capable and qualified to participate both EPC and T&I TENDERS has the right to submit cost optimization/discount for consideration during evaluation, in case TENDERER is awarded for both EPC and T&I TENDER.

#### 3. Contract Period

Contract period for T&I scope of work is 4 years 9 months starting from 1<sup>st</sup> October 2020 until 30<sup>th</sup> June 2025.

#### 4. Scope of Work

Scope of work for Bundled Phases 3 Project is brief as below picture:



- Work Package 1: Wellhead Platform
- Work Package 2: Associated Pipeline and Tie-in spools
- Work Package 3: Existing Topside Brownfield Modification
- Work Package 4: Existing Topside Relocation
- Work Package 5: New FSO Pipeline, PLEM and Tie-ins

TENDERER shall refer scope of work quoted as “T&I” in below table. All detailed of work shall be read in Exhibit A of Form of Contract (PART II of the CFT). Moreover, Interfacing matrix and document (as per Exhibit A Annex 10 of Form of Contract (PART II of the CFT) shall be used for managing between two Contracts (EPC and T&I).

Work Package	Activity	Engineering	Procurement	Onshore Construction / Fabrication	Transportation & Installation
1	Wellhead Platforms	EPC	EPC	EPC	T&I
2	Associated Pipelines and Tie-ins	T&I	T&I	T&I	T&I
3	Existing Topside Brownfield Modifications	EPC	EPC	EPC	T&I
4.1	Existing Topside Relocation	T&I			T&I
4.2	Existing Topside Verification, New Jackets and Nav-Aid Platform	EPC	EPC	EPC	T&I
5	New FSO Pipeline, PLEM and Tie-ins	T&I	T&I	T&I	T&I

## 5. Preliminary requirement

COMPANY intends to order minimum four (4) units of Wellhead Platform in 2022 and minimum six (6) units of Wellhead Platform per year during 2023-2024.

The preliminary required quantity of pipeline length (excluding G1/61 FSO Pipelines) is average 5-7 km per Wellhead Platforms.

The preliminary requirements for G1/61 FSO Pipelines are as follows:

- 1 No. of 5” x 12km conventional pipeline for produced water
- 1 No. of 8”/12” x 12km pipe-in-pipe for oil
- 1 No. of PLEM

However, the confirmation of order quantity of Wellhead Platform shall be issued by NTP each year. In case the order quantity per year is less than specified minimum order. COMPANY shall pay CONTRACTOR only the price quoted in Exhibit B of Form of Contract (PART II of the CFT). Therefore, CONTRACTOR shall ensure all cost incurred have been covered.

## 6. Maximum Capability of Wellhead Platform Construction

Potentially, COMPANY have requirement up to fifteen (15) units of Wellhead Platform per year throughout Contract period. TENDERER therefore shall demonstrate their capability of fabrication, management and other related works to support this requirement.

TENDERERS also can propose more than one vessel for each key vessel item to cover all of contract’s installation years.



## 7. Price structure

TENDERER shall quote fix price of T&I for WHP and Pipeline throughout Contract Period (as per Exhibit B of Form of Contract (PART II of the CFT)). Summary of price structure is listed in below table.

Activity	Compensation Mechanism
Project Management & Services	Fixed Lump Sum price
Engineering	Fixed Lump Sum price
Procurement	<u>Material Group 1</u> - Material: At Cost - Services Fee: Fixed Lump Sum price <u>Material Group 2</u> - Fixed Lump Sum price
Fabrication	Fixed Lump Sum price
Transportation & Installation	WHP: Fixed Lump Sum price per WHP Pipeline: Fixed Unit Rate price per kilometer
Mobilization & Demobilization of the MARINE SPREAD	Fixed Lump Sum price per time

Moreover, TENDERER who is capable and qualified to participate both EPC and T&I Package has the right to submit cost optimization/discount for consideration during evaluation as per Exhibit B of Form of Contract (PART II of the CFT).

## 8. Others

1. Price validity is at least eight (8) months after bid closing date and time.
2. Pre-Bid clarification meeting shall be tentatively conducted within 2 weeks after CFT issuance, COMPANY shall confirm the exact date. Pre-Bid clarification meeting shall be a teleconference meeting, tentatively conducted through Microsoft Team.
3. Company Furnished Material and Equipment (CFME) for this Package is “Bare Line Pipe for Crude Oil Pipeline for new FSO”.
4. Tender bond of 500,000 USD shall be submitted altogether with Tender submission. Tender bond shall be submitted with Banks in Thailand or any Banks having branches in Thailand.

**PART I – INSTRUCTIONS TO TENDERERS**

**ANNEXES**

**ANNEX 1**

**FORM OF LETTER OF ACKNOWLEDGEMENT**

**ANNEX 1**

**FORM OF LETTER OF ACKNOWLEDGMENT**

(To be printed on TENDERER's letter head paper)

**QUOTE**

Date:

Subject: Call for TENDER No: **THC19-5246**

**Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins Project (T&I Part)**

Dear Sirs,

We acknowledge receipt of your invitation for TENDER and the TENDER DOCUMENTS for the above mentioned Call for TENDER and are in possession of all documents listed therein which were received on .....

We hereby agree to keep all information contained in the TENDER DOCUMENTS strictly confidential, and will not disclose or communicate such information to any third parties without prior approval from you.

We acknowledge that any breach of this undertaking will not only result in disqualification, but may also affect any possible future works or services with you.

<Remark: **Delete (\*) which is not applicable**>

(\*) We hereby accept to respond to your invitation and to submit our TENDER not later than the Closing Date and Time and we agree to comply with your INSTRUCTIONS TO TENDERERS.

We hereby confirm tendering entity in form of:

- Single Entity
- Consortium
- Joint Venture

The person responsible for this job in our organization is:

Mr. / Ms. : .....

Position : .....

Company Name : .....

Address : .....

Telephone : .....

Fax : .....

Email : .....

[Add information for Joint venture and Consortium (if any)]

(\*) We hereby decline your invitation. Reason for declining: .....

**UNQUOTE**

**ANNEX 2**

**FORM OF LETTER OF SUBMISSION**

**ANNEX 2**

**FORM OF LETTER OF SUBMISSION**

*(To be printed on TENDERER's letter head paper)*

**QUOTE**

Date:

Subject: Call for TENDER No: **THC19-5246**  
**Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins Project (T&I Part)**

Dear Sirs,

Having examined the TENDER DOCUMENTS contained in the above mentioned Call for TENDER issued by you on ....., we, the undersigned, undertake to offer the performance of the SERVICES and all obligations described in the said TENDER DOCUMENTS within the contractual dates specified therein, for the prices and rates mentioned in the present TENDER.

- Our TENDER is in full compliance with the terms and conditions set forth in the TENDER DOCUMENTS.
- Our TENDER contains modifications/exceptions to the following terms and conditions, all of which are provided in the separate QUALIFICATIONS provided in ITT Annex 8:
- Technical requirements/specifications
  - Contractual terms and conditions

CONTRACTOR hereby confirm to participate in full scope including wellhead platform, associated pipelines, tie-ins, and brownfield modifications.

We agree to keep our TENDER valid for a period of **Eight (8) months** from the closing date and time stipulated in Section 2 of the INSTRUCTIONS TO TENDERERS and it shall remain binding upon us and may be accepted by you at any time before the expiration of such period.

If our TENDER is accepted within the period mentioned above, we agree to enter into a formal agreement for the SERVICES in accordance with the conditions of the Form of Contract.

We understand and agree that:

- (i) you shall be under no obligation to accept the lowest or any TENDER; the decision made by you on this matter shall be final and shall not be contested or opposed by us;
- (ii) our TENDER is proposed and submitted at our cost and expense; in no case will any cost or expense incurred by us in the preparation or submission of our TENDER be borne by you; and
- (iii) all documents submitted by us in response to this CFT shall become the property of COMPANY, except for any intellectual property rights in such documents which shall remain vested in us.

All capitalized terms in this letter shall have the meaning ascribed to them in the INSTRUCTIONS TO TENDERERS (PART I of the Call for TENDER).

**UNQUOTE**

**ANNEX 3**

**FORM OF TENDER BOND**

**ANNEX 3**

**FORM OF TENDER BOND**

**(BANK GUARANTEE)**

- I. We, the Undersigned (1) ..... (hereinafter referred to as “**GUARANTOR**”), established at (2) ..... represented by (3) ..... have taken notice of the Call for Tender No. **THC19-5246** for **BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES, BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**, submitted by (6) ..... whose registered office is at (7) ..... (hereinafter referred to as “**TENDERER**”) to PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED, PTTEP INTERNATIONAL LIMITED AND PTTEP ENERGY DEVELOPMENT COMPANY LIMITED (hereinafter referred to as “**COMPANY**”) a Company registered under the laws of the Kingdom of Thailand, with its registered office at Energy Complex Building, Floors 6, 19-36, 555/1 Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900 THAILAND.
- II. The GUARANTOR hereby irrevocably guarantees that if TENDERER withdraws its tender for the above mentioned Call for Tender before the expiry of its tender’s validity, or fails, after receipt from COMPANY of notice of award, to enter into the contract for such Call for Tender with COMPANY, or fails to provide performance guarantee within the period set forth in the contract, the GUARANTOR undertakes on behalf of TENDERER to pay to COMPANY **any sum or sums in aggregate not exceeding Five Hundred Thousand US Dollars (USD 500,000)**. This guarantee is given at the request of TENDERER made to the GUARANTOR in accordance with the above mentioned Call for Tender.
- III. Each demand by COMPANY for payment under this guarantee shall be made in writing (including telex or cable) to the following address:  
(10) .....,  
.....,  
The GUARANTOR shall promptly notify COMPANY any change in the above address.
- IV. The GUARANTOR shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by TENDERER. GUARANTOR shall not require COMPANY to justify the breach indicated in its demand for payment, nor shall GUARANTOR have any recourse against COMPANY in respect of any payment made hereunder.
- V. The GUARANTOR shall pay the sum demanded by COMPANY hereunder within fifteen (15) days after the date of receipt of COMPANY’s demand.
- VI. No alteration in the terms of the TENDERER’s offers or proposal for the above mentioned Call for Tender made by agreement between TENDERER and COMPANY shall in any way release the GUARANTOR from all or any part of its liabilities under this Guarantee.
- VII. This Guarantee shall be from ..... till ..... as set out in the Call for TENDER no. THC19-5246 and in the event that TENDERER is notified of the award of the Contract by COMPANY it shall in addition be valid until signature of the contract by TENDERER and COMPANY.
- VIII. This guarantee shall be interpreted in accordance with the laws of the Kingdom of Thailand.
- IX. The GUARANTOR represents that this guarantee has been established in such form and with such content that it is fully and freely enforceable against the GUARANTOR in the manner provided in all paragraphs above.



X. If any provision (or part thereof) of, or pursuant to, this guarantee, is or become unlawful, void, or unenforceable, the legality, validity or enforceability of any other part of that provision or any other provision shall not be affected but shall continue in full force and effect.

(Date) .....

(Common Seal of Signature of the GUARANTOR or such other formality as may be required under the law to render a unilateral promise binding on the GUARANTOR).

- (1) Name of the Bank proposed by TENDERER and approved by COMPANY.
- (2) GUARANTOR's address
- (3) GUARANTOR's authorized representative
- (6) Name of TENDERER
- (7) TENDERER's address
- (10) Bank address for notices

**ANNEX 4**

**LETTER OF UNDERTAKING TO PROVIDE PERFORMANCE BANK GUARANTEE(S)**

**ANNEX 4**

**LETTER OF UNDERTAKING TO PROVIDE A PERFORMANCE BANK GUARANTEE**

*(To Be Typed On The Issuing Bank's Letterhead)*

To: **PTT Exploration and Production Public Company Limited  
PTTEP International Limited  
PTTEP Energy Development Company Limited**

Energy Complex Building A, Floors 6, 19-36  
555/1 Vibhavadi Rangsit Road, Chatuchak,  
Bangkok 10900, THAILAND  
Attention:

Subject: Letter of Undertaking to Provide a Performance Bank Guarantee

Call for TENDER No.: **THC19-5246**

**Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins  
Project (T&I Part)**

Dear Sir,

We, (1) ....., at the request of (2) ..... of (hereinafter referred to as TENDERER), do hereby irrevocably undertake and agree that, in the event TENDERER is awarded CONTRACT reference to Call for TENDER No. THC19-5246 for BUNDLED PHASES 3 WELLHEAD PLATFORM, ASSOCIATED PIPELINES AND TIE-INS PROJECT (T&I PART), that we will within thirty (30) days from the EFFECTIVE DATE of such CONTRACT issue a Performance Bank Guarantee to COMPANY in full accordance with the "Form of Performance Bank Guarantee" as included as Annex 1/A to the AGREEMENT forming part of the specimen CONTRACT, part of Call for TENDER No. THC19-5246.

For clarity we confirm that terms used in this letter which are in capitalized text shall and are defined in Call for TENDER No. THC19-5246 shall the meanings so defined.

Date ..... Signature(s) .....

Attachment-1 Copy of the proforma Performance Bank Guarantee

- (1) *Name and branch of Issuing Bank*
- (2) *Address of branch of issuing bank*

Attachment-1 to the Letter of Undertaking to Provide a Performance Bank Guarantee

**ANNEX 5**

**LETTER OF UNDERTAKING TO PROVIDE A PARENT COMPANY GUARANTEE**

**ANNEX 5**

**LETTER OF UNDERTAKING TO PROVIDE A PARENT COMPANY GUARANTEE**

*(To Be Typed On the Parent Company Letterhead)*

To: **PTT Exploration and Production Public Company Limited  
PTTEP International Limited  
PTTEP Energy Development Company Limited**

Energy Complex Building A, Floors 6, 19-36  
555/1 Vibhavadi Rangsit Road, Chatuchak,  
Bangkok 10900, THAILAND  
Attention:

Subject: Letter of Undertaking to Provide a Performance Bank Guarantee

Call for TENDER No.: **THC19-5246**

**Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins Project (T&I Part)**

Dear Sir,

We, \_\_\_\_\_, at the request of insert name of TENDERER, hereby irrevocably undertake and agree that, in the event TENDERER is awarded the CONTRACT reference to Call for TENDER No. THC19-5246 for BUNDLED PHASES 3 WELLHEAD PLATFORM, ASSOCIATED PIPELINES AND TIE-INS PROJECT (T&I PART), we will within fourteen (14) days from the EFFECTIVE DATE issue to COMPANY a Parent Company Guarantee in full accordance with the "Form of Parent Company Guarantee" as included as Annex 1/C to the AGREEMENT forming part of the Form of Contract, part of Call for TENDER No. THC19-5246.

*Furthermore ..... Additional text to be added here in case of Joint Venture or Consortium*

For clarity we confirm that terms used in this letter which are in capitalized text shall and are defined in Call for TENDER No. THC19-5246 shall the meanings so defined.

Date \_\_\_\_\_ Signature(s) \_\_\_\_\_

**ANNEX 6**

**(NOT USED)**

**ANNEX 7**

**REQUEST FOR CLARIFICATION**

(This form is to be used for Tender Clarification during Tender Preparation stage  
and to be submitted no later than fourteen (14) calendar days prior Tender closing date)

**ANNEX 7**

**REQUEST FOR CLARIFICATION**

**1.0 REQUESTS FOR CLARIFICATION of the Call for Tender Package**

- 1.1 All REQUESTS FOR CLARIFICATION (RFC) of the CFT Package shall be made, submitted and responded to as per Sections 5.2, 5.3, 5.4 and this Annex 7 of the ITT.
- 1.2 A RFC shall only be submitted if something in the CFT Package is not clear or for errors, omissions, deficiencies, inaccuracies, contradictions, ambiguities, discrepancies, mis-description, conflicts, contradictions and inconsistencies in the CFT Package.
- 1.3 Requests / proposals to deviate from the requirements of the CFT Package shall not be submitted as RFCs but shall be submitted as QUALIFICATIONS in Section 4 of Volume 1 of the TENDERER’s Technical Proposal (refer to Section 5.5 of the ITT).
- 1.4 RFCs shall be submitted on a progressive basis using the below described RFC Submission Form as native Excel file.
- 1.5 RFCs shall be submitted no later than 14 days before the Tender Closing Date (2<sup>nd</sup> paragraph of Section 5.3 of the ITT refers).

**2.0 Guidelines for Filling Out the RFC Submission Form**

2.1 The following pro-forma RFC Form shall be used.

Bundled Phases 3 Project (T&I Part)

CFT No. THC19-5246

**REQUEST FOR CLARIFICATION FORM**

Number Col-1	Contract Document			Dis. Col-5	Request for Clarification Col-6	RFC Attachment Col-7
	CD Ref. Col-2	Section Col-3	Technical Document / Drawing Reference Col-4			

Shall be filled out as per the requirements stipulated in ITT Annex-7 Table 1.

A native Excel file of RFC Form is attached in the PDF version of this ITT Annex 7.

2.2 Each RFC shall be filled out in accordance with the protocol in Annex 7 Table-1. The COMPANY reserves the right, but not as an obligation, to correct errors in RFCs.

TENDERERS are requested to use the attached proforma Excel sheet as follows:

Table-1: Protocol for Filling Out RFC Submission Form

Column	Requirements
Column-1 <b>RFC Number</b>	Enter a sequential RFC Number as AAA-NNNN, where AAA = TENDERER’s three letter short name identifier NNNN = Sequential number starting with 0001 then 0002, 0003 0004 etc. So if PTTEP was a TENDERER, the first sequential number of an RFC by PTTEP would be numbered PTT-0001.
Column-2	Enter the short name for the applicable CONTRACT DOCUMENT from the drop-down list in the RFC Form e.g.



Column	Requirements																										
<b>CONTRACT DOCUMENT</b>	<ul style="list-style-type: none"> <li>• EXA for Exhibit A</li> <li>• EXA-A1 for Exhibit A Annex 1</li> <li>• EXA-A1 Att-1 for Exhibit A Annex 1 Attachment-1</li> </ul>																										
Column-3 <b>Section Number</b>	The applicable section of the referenced document shall be stated. Note: Always use an apostrophe ‘in front of the section reference in the Excel RFC Form. This to allow easy sorting by the COMPANY.																										
Column-4 <b>Document / Drawing Reference Number</b>	Enter the applicable Technical Document / Drawing number e.g. TH-G1-61-1A-GEN-PRO-BOD-0001 Rev.C1 If possible only enter one Technical Document / Drawing in Column 4 per RFC and make reference to any others in the RFC question in Column 6.																										
Column-5 <b>Discipline</b>	Enter the discipline (see below) from the drop-down list in the RFC Form. <table border="1"> <tbody> <tr> <td>GEN = General Technical</td> <td>STR = Structural</td> </tr> <tr> <td>COM = Commercial</td> <td>ELE = Electrical</td> </tr> <tr> <td>CON = Contractual</td> <td>INS = Instrumentation</td> </tr> <tr> <td>SCH = Planning and schedule</td> <td>TEL = Telecoms</td> </tr> <tr> <td>PRO = Process</td> <td>PLR = Subsea pipelines</td> </tr> <tr> <td>SAF = Safety Engineering</td> <td>T&amp;I = Transport and Installation</td> </tr> <tr> <td>MEC = Mechanical</td> <td>QM = Quality Management</td> </tr> <tr> <td>PIP = Piping</td> <td>HSE= SSHE requirements for WORK</td> </tr> <tr> <td>NVA = Naval Architecture</td> <td>FNI = Insurance</td> </tr> <tr> <td>PCC = Pre-comm and Comm.</td> <td>MWS = Marine Warranty Surveyor</td> </tr> <tr> <td colspan="2">FNA = Finance and Accounting</td> </tr> <tr> <td colspan="2">EIC = Independent Engineering review, Inspection and Certification.</td> </tr> <tr> <td colspan="2">FAB = Fabrication / Onshore Construction</td> </tr> </tbody> </table>	GEN = General Technical	STR = Structural	COM = Commercial	ELE = Electrical	CON = Contractual	INS = Instrumentation	SCH = Planning and schedule	TEL = Telecoms	PRO = Process	PLR = Subsea pipelines	SAF = Safety Engineering	T&I = Transport and Installation	MEC = Mechanical	QM = Quality Management	PIP = Piping	HSE= SSHE requirements for WORK	NVA = Naval Architecture	FNI = Insurance	PCC = Pre-comm and Comm.	MWS = Marine Warranty Surveyor	FNA = Finance and Accounting		EIC = Independent Engineering review, Inspection and Certification.		FAB = Fabrication / Onshore Construction	
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Column-6 <b>REQUEST FOR CLARIFICATION</b>	Each RFC shall: <ol style="list-style-type: none"> <li>a) have a title, and</li> <li>b) describe what is not clear or the error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy, mis-description, conflict, contradiction or inconsistency, and</li> <li>c) contain a clear concise question.</li> </ol> A RFC Attachment (PDF) shall be submitted for marked up extracts of the applicable docents / drawings.																										
Column-7 <b>RFC Attachment</b>	RFC attachments shall be numbered as ‘AAA-XXXX Att-NN’ where ‘AAA = TENDERER’s three letter short name identifier XXXX = Sequential number starting with 0001 then 0002, 0003, 0004, etc. NN = The attachment number																										

### 3.0 COMPANY Responses to RFCs

- 3.1 The COMPANY at its sole discretion and decision will review and respond to timely and properly submitted RFCs by means of Tender Bulletin(s) as per the requirements of Sections 5.2 and 5.3 of the ITT.
- 3.2 Example of the Form of Tender Bulletins is shown below.

TB Number	Contract Document			Dt.	Request for Clarification	COMPANY Response	Update CFT Package	
	CD Ref.	Section	Technical Document / Drawing Reference				Y/N	Details
Col-1	Col-2	Col-3	Col-4	Col-5	Col-7	Col-8	Col-9	Col-10

3.3 The COMPANY will indicate in Column 9 if the CFT Package shall be updated as a result of the REQUEST FOR CLARIFICATION, either a Y (yes) or a N (No). The Call for Tender Package will only be updated for items marked as Y. For clarity the CFT Package (including but not limited to the Form of Contract) shall not be updated for REQUESTS FOR CLARIFICATIONS identified as N. The COMPANY’s response in Column 8 is merely for information without liability on the part of the COMPANY and shall be considered as non-binding written understandings before the EFFECTIVE DATE within the meaning of AGREEMENT sub-article 3.1.

3.4 Tender Bulletins will in principle be issued to all TENDERERS except for matters specific to a particular TENDERER such as approval of bank for performance guarantee and advance payment guarantee, yard locations etc, and other specific matters.

**ANNEX 8**

**QUALIFICATIONS**

(This form shall be submitted together in Section 4 of Volume 1 - Technical Proposal)

**ANNEX 8****QUALIFICATIONS****4.0 General**

4.1 QUALIFICATIONS shall be submitted in Section 4 of Volume 1 of the TENDERER's Technical Proposal as per the requirements of this ITT Annex 8 and Sections 3.4 and 5.5 of the ITT.

4.2 QUALIFICATIONS shall be categorized as either:

- 1) **Contractual**, concerning the ITT, AGREEMENT, Exhibit B, Exhibit E Annex 8 and Exhibit G Annexes 1 to 10, or
- 2) **Technical**, concerning Exhibit A, C, E, Exhibit E Annexes-1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12 and Exhibits H, I, J, K and L

4.3 Separate sheets shall be submitted for (1) Contractual QUALIFICATIONS and (2) Technical QUALIFICATIONS. Native Excel files of the pro-forma submission forms are attached in the PDF version of this ITT Annex 8.

**5.0 Protocol for Filling Out QUALIFICATIONS Sheets**

<b>Column</b>	<b>Requirements</b>																		
<b>Column-1 QUALIFICATION Number</b>	Number each QUALIFICATION as either AAA-CON-0001 or AAA-TEC-0001 where: AAA = TENDERER's three letter short name identifier CON = Contractual TEC = Technical NNNN = Sequential number starting with 0001 then 0002, 0003 etc.																		
<b>Column-2 CONTRACT DOCUMENT</b>	Enter the short name for the applicable CONTRACT DOCUMENT from the drop-down list in the RFC Form e.g. <ul style="list-style-type: none"> <li>• EXA for Exhibit A</li> <li>• EXA-A1 for Exhibit A Annex 1</li> <li>• EXA-A1 Att-1 for Exhibit A Annex 1 Attachment-1</li> </ul>																		
<b>Column-3 Section Number</b>	The applicable section of the referenced document shall be stated. <b>Note: Always use an apostrophe 'in front of the section reference in the Excel RFC Form. This to allow easy sorting by the COMPANY.</b>																		
<b>Column-4 Document / Drawing Reference Number</b>	Enter the applicable Technical Document / Drawing number e.g. TH-G1-61-1A-GEN-PRO-BOD-0001 Rev.C1 Only enter one Technical Document / Drawing in Column 4 and make reference to any others in Column 6.																		
<b>Column-5 Discipline</b>	Enter the discipline (see below) from the drop-down list <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>GEN = General Technical</td> <td>STR = Structural</td> </tr> <tr> <td>COM = Commercial</td> <td>ELE = Electrical</td> </tr> <tr> <td>CON = Contractual</td> <td>INS = Instrumentation</td> </tr> <tr> <td>SCH = Planning and schedule</td> <td>TEL = Telecoms</td> </tr> <tr> <td>PRO = Process</td> <td>PLR = Subsea pipelines</td> </tr> <tr> <td>SAF = Safety Engineering</td> <td>T&amp;I = Transport and Installation</td> </tr> <tr> <td>MEC = Mechanical</td> <td>QM = Quality Management</td> </tr> <tr> <td>PIP = Piping</td> <td>HSE= SSHE requirements for WORK</td> </tr> <tr> <td>NVA = Naval Architecture</td> <td>FNI = Insurance</td> </tr> </tbody> </table>	GEN = General Technical	STR = Structural	COM = Commercial	ELE = Electrical	CON = Contractual	INS = Instrumentation	SCH = Planning and schedule	TEL = Telecoms	PRO = Process	PLR = Subsea pipelines	SAF = Safety Engineering	T&I = Transport and Installation	MEC = Mechanical	QM = Quality Management	PIP = Piping	HSE= SSHE requirements for WORK	NVA = Naval Architecture	FNI = Insurance
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Column	Requirements	
	PCC = Pre-comm and Comm.	MWS = Marine Warranty Surveyor
	FNA = Finance	FAB = Fabrication / Onshore Construction
	EIC = Independent Engineering review, Inspection and Certification.	
Column-6 <b>QUALIFICATION</b>	Each QUALIFICATION shall have a title and be a clear concise statement of the proposed deviation. If more space is needed than allowed in the Excel Cell, TENDERERS may submit an Attachment in PDF format, also for marked up extracts from the applicable documents / drawings.	
Column-7 <b>QUALIFICATION Attachment</b>	QUALIFICATION attachments shall be numbered as 'AAA-CON-0001 Att-NN or 'AAA-TEC-0001 Att-NN where AAA = TENDERER's three letter short name identifier CON = Contractual TEC = Technical XXXX = Sequential number starting with 0001 then 0002, 0003 etc. NN = The attachment number 01, 02, etc.	
Column-8 <b>Reason for the QUALIFICATION</b>	State and explain why the TENDERER cannot comply with the requirement of the CFT as updated by Tender Bulletins	
Column-14 <b>Indication of Price Impact (Y/N)</b>	Indicate (Y/N) if there will be a price impact if the QUALIFICATION is not agreed to by the COMPANY. <b>Do not enter the price impact in Column-15 until instructed by the COMPANY to do so.</b>	

## 6.0 Clarification of QUALIFICATIONS

6.1 QUALIFICATIONS shall be clarified and resolved / concluded on a per individual TENDERER basis during the evaluation of TENDERER's Technical Proposal.

Step-1 The COMPANY will consider QUALIFICATIONS from a TENDERER, mark up its responses in Column-9 (COMPANY's Response), Column-13 (Update FOC Y/N) and will return the updated QUALIFICATION sheets to the TENDERER by email.

Step-2 The TENDERER shall consider the COMPANY's response and shall enter in Column-10 (TENDERER's Reply) either:

- a) Confirmation of its agreement, or
- b) Provide its response.

The TENDERER shall return the updated QUALIFICATION Sheets to the COMPANY by email on or before the deadline stated by the COMPANY.

Step-3 The COMPANY will then update Column-11 (Resolution / Conclusion), Column-12 (Status) and share the updated QUALIFICATION Sheets with the TENDERER in advance of the Tender Clarification Meeting.

Step-4 The COMPANY will invite the TENDERER to a Tender Clarification Meeting to be held in the COMPANY's office in ENCO Building in Bangkok, Thailand.

## **7.0 Resolution / Conclusion of QUALIFICATIONS**

- 7.1 A Tender Clarification Meeting (QUALIFICATIONS) shall be held with each TENDERER on an individual basis. The purpose being to verify and ensure that all QUALIFICATIONS for the TENDERER are closed out on or before the day of the Tender Clarification meeting.
- 7.2 The respective Contractual teams and Technical Teams will meet (separate meeting rooms) to resolve Contractual and Technical QUALIFICATIONS.
- 7.3 Priority will to discuss the top-ten QUALIFICATIONS only. Other QUALIFICATIONS may be discussed if time permits, subject to the condition that **All QUALIFICATIONS shall be closed on the day of the meeting.** TENDERERS shall ensure their meeting attendees have sufficient authority to agree / conclude without referral to others who are not attending the meeting.
- 7.4 Resolutions / Conclusions for QUALIFICATIONS in the QUALIFICATIONS Sheets will be updated by the COMPANY on a progressive basis during the Tender Clarification Meeting. At the end of the meeting the updated QUALIFICATION Sheets will be printed (two copies) and signed COMPANY and TENDERER representatives at the end as a true record. One set will be retained by the COMPANY and the other by the TENDERER.
- 7.5 If a QUALIFICATION from a TENDERER is not resolved / concluded prior to Stage 6 of the Tender Clarification Meeting it shall be considered withdrawn and the TENDERER shall comply with the requirement of the CFT Package as updated by Tender Bulletins in respect of the subject matter of the unresolved QUALIFICATION. The updated QUALIFICATION Sheets shall be annotated accordingly.
- 7.6 Remaining open Tender Clarifications (if any) shall also be discussed and to the extent feasible resolved on the day of the Tender Clarification Meeting.

**Example QUALIFICATION Sheets**

**(1) Contractual**

Bundled Phases 3 Project (T&I Part)  
 CFT No. THC19-5246 Contractual QUALIFICATIONS (CQ) TENDERER: [Insert TENDERER's name] Date: [Insert date]

Number Col-1	Contract Document			Dis. Col-5	QUALIFICATION Col-6	Qualification Attachments Col-7	Reason for QUALIFICATION Col-8	COMPANY Response Col-9	TENDERER Reply Col-10	Conclusion / Resolution Col-11	Status Col-12	Update FOC Y/N Col-13	TENDER PRICE	
	CD Ref. Col-2	Section Col-3	Technical Document / Drawing Reference Col-4										Impact Y/N Col-14	Adjstment USD Col-15

Shall be filled out as per the requirements stipulated in ITT Annex-8.  
 Do not insert prices in Column-13 until instructed by the COMPANY to do so.

**(2) Technical**

Bundled Phases 3 Project (T&I Part)  
 CFT No. THC19-5246 Technical QUALIFICATIONS (TQ) TENDERER: [Insert TENDERER's name] Date: [Insert date]

Number Col-1	Contract Document			Dis. Col-5	QUALIFICATION Col-6	Qualification Attachments Col-7	Reason for QUALIFICATION Col-8	COMPANY Response Col-9	TENDERER Reply Col-10	Conclusion / Resolution Col-11	Status Col-12	Update FOC Y/N Col-13	TENDER PRICE	
	CD Ref. Col-2	Section Col-3	Technical Document / Drawing Reference Col-4										Impact Y/N Col-14	Adjstment USD Col-15

Shall be filled out as per the requirements stipulated in ITT Annex-8.  
 Do not insert prices in Column-13 until instructed by the COMPANY to do so.

**ANNEX 9**

**CONFIRMATION LETTER FOR UNPRICED SUPPLEMENTARY PROPOSAL**



## **ANNEX 9**

### **CONFIRMATION LETTER FOR UNPRICED SUPPLEMENTARY PROPOSAL**

*(To Be Typed On The Parent Company Letterhead)*

**PTT Exploration and Production Public Company Limited  
PTTEP International Limited  
PTTEP Energy Development Company Limited**

Energy Complex Building A, Floors 6, 19-36  
555/1 Vibhavadi Rangsit Road, Chatuchak,  
Bangkok 10900, THAILAND

**Attention:**

Call for TENDER No.: **THC19-5246**

**Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins Project  
(T&I Part)**

**Subject: Confirmation Letter for Unpriced Supplementary Proposal**

**Dear Sir,**

We hereby confirm as follows:

- a) TENDERER agrees with the content of the attached Unpriced Supplementary Proposal without exception and or deviation, and
- b) All our QUALIFICATIONS (qualifications, deviations, exceptions) to TENDER DOCUMENTS are included the Unpriced Supplementary Proposal (copy attached) and that there are no further or outstanding; REQUEST FOR CLARIFICATION, TENDER CLARIFICATIONS, COMPANY GENERAL CLARIFICATIONS, QUALIFICATIONS, Deviations or Exceptions, and
- c) Within the QUALIFICATIONS, TENDER CLARIFICATIONS, COMPANY GENERAL CLARIFICATIONS Sheets in the Unpriced Supplementary Proposal we have indicated Y or N in the Column entitled "Adjustment to TENDER Price (+ve, 0, or -ve)".
- d) TENDERER will submit the Priced Supplementary Proposal (as per Item 7.2 b) of the Instructions to TENDERERS) without amendment or alteration strictly in accordance with COMPANY instructions when and if requested to do by the COMPANY.
- e) All impacts on the already submitted TENDER Price will be priced by us within the Priced Supplementary Proposal as Delta Price Adjustments (+ve, -ve or zero as applicable) against each of the individual line items as indicated in the Unpriced Supplementary Proposal.
- f) Terms used in this letter which are in capitalized text shall and are defined in Call for TENDER No. THC19-5246 shall have the meanings so defined.

**Yours Sincerely**

Name:

TENDERERS Duly Authorized Representative

Attachment – Unpriced Supplementary Proposal

**ANNEX 10**

**SUMMARY TENDER PROPOSAL FORM**

**ANNEX 10**

**SUMMARY TENDER PROPOSAL FORM**

**CALL FOR TENDER NO. THC19-5246**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES, BROWNFIELD  
MODIFICATIONS AND TIE-INS PROJECT (T&I PART)**

(Native file in Excel format is provided)

**ANNEX 11**

**CONTRACTOR SSHE CAPABILITY ASSESSMENT QUESTIONNAIRE**

**ANNEX 11**

**CONTRACTOR SSHE CAPABILITY ASSESSMENT QUESTIONNAIRE**

TENDERER is advised that a competent SSHE designate should review and prepare the SSHE response with appropriate input where necessary from the fabrication team in preparing responses and evidence related to Contractor SSHE Capability Assessment Questionnaire Sections 1 to 16 below. TENDERER should review any guidance notes provided within each section.

COMPANY Evaluation will be based on the quality of the written information received related to the subject matter, and where applicable the effectiveness of TENDERER assessment of requirements and content of supportive documents as requested which correlate with and where drafted for the purpose of the bidding process in alignment of the PROJECT related SCOPE OF WORK.

<b>Sub Section 1: SSHE Policies</b>	
TENDERER to provide SSHE Policies endorsed by top management, including as available	
<ul style="list-style-type: none"> <li>• Security</li> <li>• Health</li> <li>• Safety</li> <li>• Welfare</li> <li>• Environment</li> <li>• Substance Abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Medical Check Up</li> <li>• Zero Tolerance</li> <li>• Stop Work Authority</li> <li>• PPE Policy</li> <li>• Work at Nights &amp; Work Out Of Hours Policy</li> <li>• Work Near or Overwater Policy</li> </ul>
<p>Guidance:</p> <ol style="list-style-type: none"> <li>1. As is common Industry practice, TENDERER may group Policies into one, <i>for example HSE or SSHE or SSHE and Welfare Policy.</i></li> <li>2. If specific Policies are not already established TENDERER may submit example Policies which he proposes to be later developed for Project and top management endorsement.</li> <li>3. If TENDERER has other SSHE related Policies in place not listed above, TENDERER shall provide them to COMPANY for review.</li> </ol>	

<b>Sub Section 2: SSHE Management System</b>
<p>TENDERER to demonstrate SSHE Management System which contains the related SSHE documents to ensure safe operation as TENDERER is responsible for SSHE Management System to provide assurance that the personnel for whom he is responsible are qualified and healthy for the job and that the tools and machinery he is providing are properly maintained and suitable for the job.</p> <p>TENDERER shall submit following documents for review.</p> <ol style="list-style-type: none"> <li>1. Contractor SSHE Management System</li> <li>2. Contract SSHE Monitoring Program</li> <li>3. Contract SSHE Management Plan</li> <li>4. Project Work Instruction</li> </ol>

<b>Sub Section 3: SSHE Statistics and Recovery Programs</b>
<p>TENDERER to provide last five (5) years SSHE statistics compared to TENDERER SSHE annual targets for onshore operations [Fatality Rate, LTIR, TRIR, High Potential Incident Rate, and Major Accident rate].</p> <p>TENDERER to provide a summary table with brief details and root cause findings of any Fatality, Lost Time Incident, Restricted Work Day Cases, Medical Treatment Cases for each year over the previous five (5) years.</p> <p>TENDERER shall include with its previous five (5) Years submission to COMPANY a statistic improvement plan detailing the primary incident / accident causation trends and provide brief details of the initiatives and programs plotted against the performance trend timeline that have been taken to further promote improvement and arrest any deteriorating performance.</p>

**Guidance:**

1. The Frequency rates are to be based on 1,000,000 Man-hour frequency calculations

**Sub Section 4: Key SSHE Personnel (Construction)**

TENDERER shall provide CV, SSHE Certification and details of SSHE qualifications and experience as per Exhibit L requirements of the following positions:

1. Project SSHE Manager
2. Deputy SSHE Manager
3. Offshore SSHE Manager
4. SSHE Equipment Inspector
5. SSHE Supervisor
6. SSHE Officer
7. Working at Height SSHE Inspector
8. Transport Safety Advisor
9. Permit To Work Coordinator
10. Offshore Medic or Doctor with ACLS / ITLS

**Guidance:**

1. TENDERER is advised to carefully review SSHE Exhibit L and Exhibit K.
2. Medical Personnel shall be approved by the Government Medical Board in the country of assignment.
3. Permit to Work Coordinators shall be part of the SSHE Team to avoid unnecessary work conflict.

**Sub Section 5: SSHE Organisation and Histogram**

TENDERER shall provide draft Project SSHE Organisation and Histogram detailing the number of Site SSHE personnel and providing industry recognised qualified SSHE discipline personnel related to the ratio of 1:50 based on the estimated Project discipline Histogram; and covering all yards to be utilised for the Project as may be applicable.

**Guidance:**

1. The Histogram shall indicate the number of SSHE disciplines for each SSHE function, based as a minimum on the Project Proposed Discipline Histogram.
2. All SSHE functions shall be engaged directly within the Project SSHE department and reporting directly to the Project SSHE Manager and have the required SSHE certification, qualification and experience comparable to requirements of Exhibit L.
3. All functions are considered to be assigned on a full-time basis to the Project, if functions are to be established part-time or ad-hoc basis to the project this is to be clearly identified and justification provided.
4. "Safety in Charge" and SSHE Personnel without formal qualification are not considered as part of the SSHE Ratio. The functions must be dedicated to and report to the SSHE Department, and be on a clear path to SSHE Certification refer to Exhibit L for consideration regarding ratio assignment criteria.

**Note:**

*Vessel designate SSHE functions and Safety Engineers involved with the design are not considered part of the ratio, although reporting inter-functional lines should be included within the SSHE Organisational Chart where applicable. Unless formal justification is provided and agreement with COMPANY given.*

**Sub Section 6: SSHE Gap Analysis**

TENDERER shall provide a GAP ANALYSIS it has undertaken of COMPANY SSHE Exhibit L main articles and Exhibit A in comparing TENDERER SSHE Systems to Exhibit requirements and detail its Gap findings and any actions TENDERER will take to bridge the gap (mitigate) in meeting with COMPANY requirements. If TENDERER feels his own systems achieve or exceed the requirement TENDERER should indicate "N/A" (not applicable) or "exceeds" in the GAP FINDINGS Column.

**Guidance:**

- See Form of Contract Exhibit L Annex 5 for Gap analysis template.
- The purpose of this deliverable is to provide confidence that the TENDERER has reviewed COMPANY SSHE Exhibit and acknowledges the intention to upgrade his own systems match, or exceed the requirements.
- TENDERER is advised to compare the SSHE requirements against his own systems as well as the “TASK” statements provided within key Exhibit articles.
- On completion of the GAP Analysis and if award is successful the GAP ANALYSIS is to be expanded to cover other relevant Exhibits of the Contract with SSHE Elements.
- GAP Analysis should then be used to develop the specific Project SSHE Bridging Document/ Plan providing due reference to the GAPS as identified.

**Sub Section 6.1: Project SSHE Management Plan (Bridging Document)**

TENDERER shall submit an example Project SSHE Management Plan (Bridging Document) to COMPANY which provides brief statements of relevant SSHE subject matters referring (reference title and number) to Contractor own Project specific Procedures and COMPANY Procedures or Exhibit L articles. Highlighting additional requirements required by COMPANY that may be over and above Contractor own criteria and what action CONTRACTOR will take to achieve the additional or higher requirements; Considerations of articles / references / headers should or may include reference to;

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Relevant reference legislation and law</li> <li>• SSHE Incentive</li> <li>• General and Project SSHE Policies,</li> <li>• Lagging and Leading Indicator Targets</li> <li>• Budget SSHE Milestones (million man-hours etc.)</li> <li>• Key Discipline SSHE Roles and Responsibilities,</li> <li>• Individual SSHE KPIs</li> <li>• Incident and Anomaly Reporting procedure</li> <li>• Listed SSHE Operational Procedures and SSHE Instructions,</li> <li>• Induction, Training and Competency developed procedure, and Training Matrix</li> <li>• SSHE Risk Management Plan</li> <li>• Critical JSA List and JSA’s</li> <li>• Permit To Work &amp; LOTO</li> <li>• Emergency and Contingency and arrangements,</li> <li>• Weekly and Monthly SSHE Report</li> <li>• SSHE Communication Program</li> <li>• BBS and SSHE Reward Programs, HSE leadership programs</li> </ul> | <ul style="list-style-type: none"> <li>• PPE Policy and Provision</li> <li>• UDAT Program</li> <li>• Security Management</li> <li>• Safety Critical Equipment and provisions</li> <li>• Project / Discipline SSHE Rules</li> <li>• Plant, Equipment, Tools standards, maintenance and inspection procedures</li> <li>• Work at height Management</li> <li>• Work Near or Work Over Water Management</li> <li>• Rules related to working within Hydrocarbon areas</li> <li>• SIMOPS Rules with Hydrocarbon Environments</li> <li>• Health and Welfare arrangements for Workers (both direct and indirect personnel)</li> <li>• Medical Check-up criteria by discipline and frequency</li> <li>• Audit and Inspection Program &amp; Forms</li> <li>• Monthly SSHE Calendar (routines)</li> <li>• SSHE Management across multiple sites</li> <li>• Offshore Remote Working</li> </ul> |
|--|--|

Guidance:

- If TENDERER is successful, the GAP ANALYSIS document will be utilised to update TENDERER BRIDGING PLAN and any associated procedures or policies.

**Sub Section 7: Project SSHE Execution Plan**

TENDERER shall provide an example Project SSHE Execution Plan (Planner/Timeline) or schedule of both preparation and execution phase’s (separate for Onshore and, Offshore) detailing specific key SSHE elements to be established for the project as applicable. Including for example, not limited to, provision of key SSHE deliverables and execution arrangements:

<p><b>Preparation Elements/ Deliverables &amp; Date (Month)</b></p> <ul style="list-style-type: none"> <li>• Project SSHE and Phase SSHE Kick Of Meetings</li> <li>• Site, Offices, Vehicles, Facilities, Vessels, Audit, Action close out plans</li> <li>• SSHE Incentive KPI Reports</li> <li>• SSHE Master Document Register</li> <li>• SSHE Key Personnel Approval</li> <li>• SSHE Organisation &amp; Histogram</li> <li>• Standards &amp; Procedures Gap Analysis</li> <li>• Overall Project/ Sites SSHE Bridging Plan (s)</li> <li>• Project Procedures, Policies, Rules and Instructions</li> <li>• Training, Competency, &amp; Coaching Plan</li> <li>• SIMOPS, Security, Risk and HAZID / MAE Workshops</li> <li>• Security Vulnerability Assessments (SVA)</li> <li>• SSHE Action Tracking Register - ATR (improvement register)</li> <li>• Project / Phase Readiness Registers &amp; Go No Go Check list (s)</li> <li>• Project Safety Critical Equipment List</li> <li>• SSHE Awards Plan and arrangement</li> <li>• Tool, Equipment, Plant – Maintenance, Inspection and Certification Program</li> <li>• SSHE Awards WHAT IF Report and Emergency Plans</li> <li>• Health and Welfare Systems</li> <li>• Permit To Work &amp; LOTO</li> <li>• Heli-Deck Certification and Inspection Report</li> <li>• Diving: Certification and IMCA FMEA Report</li> </ul>	<p><b>Execution Elements &amp; Dates (Month)</b></p> <ul style="list-style-type: none"> <li>• Site SSHE Audits &amp; Inspections</li> <li>• Vessel Suitability Inspections</li> <li>• Equipment, Tools, Gear, Inspection and Certification and Tagging</li> <li>• Diving FMEA &amp; Audits ATR</li> <li>• SSHE Key Personnel Approval &amp; Mobilisation</li> <li>• Helideck Inspections</li> <li>• Readiness and Go-No-Go Reviews</li> <li>• SSHE Commencement Certificate Issuance</li> <li>• Sub-Contractor Audits and Inspections (facilities/ vessels)</li> <li>• SSHE Meetings and SSHE Committee</li> <li>• Personnel Inductions and Orientation</li> <li>• Drills and Exercises</li> <li>• Medical Check Ups &amp; Fitness to Work Verification</li> <li>• Weekly SSHE Incentive Report reviews</li> <li>• SIMOPS, HAZID &amp; MAE Work Shops - Action Tracking Reviews</li> <li>• WHAT IF Work shop (Emergency &amp; Contingency)</li> <li>• Health and Hygiene Inspections</li> <li>• UDAT program</li> <li>• Project Risk Meetings (Inc.; SSHE)</li> <li>• Weekly and Monthly SSHE ATR Reviews</li> <li>• Training and Coaching Programs</li> </ul>
<p><b>Guidance:</b></p> <ul style="list-style-type: none"> <li>• Purpose is to assess TENDERERS SSHE planning in relation to SSHE Preparation and Execution Phases for key phases of the Project. Therefore the execution plan examples should be a timeline (SSHE elements schedule during preparation and execution) detailing establishment of execution deliverables and also the Execution impletion of the SSHE elements proposed.</li> <li>• TENDERER is expected to develop the SSHE Execution Plans for Offshore Scopes and link with the SSHE Incentive Program.</li> </ul>	

<p><b>Sub Section 7.1: SSHE Performance Report</b></p>
<p>TENDERER shall closely monitor their SSHE performance and establish frequent SSHE Reports that track performance against Project set targets. TENDERER shall provide example Project SSHE Reports, detailing targets; Targets shall be set for Leading and Lagging Indicators for example:</p>
<ul style="list-style-type: none"> <li>• Observations Cards and Hazard Report Cards</li> <li>• Number of Inductions, Personnel Trained, Inspections, Tool Box talks, Management Walkthroughs, Mass Meetings, Safety Committee Meetings, Permits Raised, HAZIDs, Emergency Drills &amp; Excercises</li> <li>• Number of Inspections, Percentage (%) Target close out on week to week or monthly basis</li> </ul>



- Trending and Classification Graphs for Incidents, Anomalies
- Percentage (%) Target Rating for Site Weekly SSHE Management and Health and Hygiene Inspections

**Guidance:**

- TENDERER should indicate his proposed targets for the Lagging Indicators (Frequency Rates) based on anticipated (budgeted man-hours for the Project)
- Also list the anticipated Leading Indicators and relevant targets to be achieved for each, as TENDERER deemed applicable for the Project.

**Sub Section 8: Project SSHE Risk Assessment**

TENDERER shall review and populate the Project SSHE Risk Ranking as per ITT Annex 11 Attachment 1 herewith, as provided by COMPANY;

- The pre-populated SSHE Hazards shall be assessed considering Project scope, and TENDERERS onshore activity. The qualification risk ranking shall be based on the COMPANY SSHE Risk Matrix as provided in Annex 3 of Exhibit L.
- TENDERER should consider the hazards without any risk mitigations, (initial risk) thereafter TENDERER shall detail the proposed risk mitigations and safety controls which TENDERER considers would if implemented reduce the risk and reassess the risk ranking which demonstrate risk values may be reduced to as low as possible.

**Guidance:**

- Purpose of the activity is to assess TENDERER concept and acknowledgement of Project related SSHE risks and the anticipated risk mitigation options it would consider during execution.
- In the event of award the document shall be utilised as applicable in preparation of specific Work Instructions, Job Safety Analysis and any relevant top hazards included within monthly Project Risk Management reviews.

**Sub Section 9: Training and Coaching**

TENDERER is to provide a SSHE training Matrix for offshore scope of work covering Contractor and Sub-Contractor personnel and the coaching and training needs of the Project. Training shall be indicated as either internal or third party providing due consideration to the COMPANY Training standards and requirements of in country law. Details shall be included with regard to how Worker Competency and SSHE Assessment / Assurance is established and maintained throughout the life cycle of the Project.

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Induction and Orientation Programs</li> <li>• SSHE functions competency and training</li> <li>• Site Coaching</li> <li>• Discipline certification and training</li> <li>• Activity training i.e. work at height, confined space</li> </ul> | <ul style="list-style-type: none"> <li>• Emergency Response Personnel and teams</li> <li>• HSE leadership programs and training</li> <li>• JSA and Risk Assessment training</li> <li>• Permit To work</li> <li>• Hazard Awareness</li> <li>• SSHE Rules</li> </ul> |
|---|--|

**Guidance:**

Purpose of the activity is to assess whether TENDERER has established systems for assessing personnel competency and training personnel to meet with required industry and SSHE standards.

**Sub Section 9.1: SSHE Training Gap Analysis**

TENDERER shall review COMPANY Training and Competency Standard SSHE-106-STD-340 as provided in Exhibit L and undertake a GAP Analysis in comparing its own Training systems. Provide an analysis report aligned with table format provided below shall be provided for review.

**Guidance:**

- The purpose of this deliverable is to provide confidence that the TENDERER has reviewed COMPANY SSHE Exhibit L related training articles, and Exhibit L Annexes in regards to; Training Standards and SSHE Instructions (where applicable), where necessary TENDERER

will acknowledge the intention to upgrade his own systems wherever applicable or indicate where his systems match, or exceed the requirements.

- TENDERER shall see Form of Contract Exhibit L Annex 5 for Gap analysis template to be used for SSHE traing gap analysis.

**Sub Section 10: Resources and Sub-Contractor Management**

TENDERER to provide details of its proposed Sub-Contractors for its Fabrication phase and details its SSHE Selection and Qualification Process (SQP) assigned in assessing the SSHE-Management systems and SSHE Competency of the Sub-Contractors both pre-selection and post award.

- Where Sub-Contractors proposed have yet to be awarded scopes of the WORK then TENDERER shall clearly identify how it proposes to validate the suitability of the Sub-Contractor for the Scope of Work.
- Where Sub-Contractors have already been awarded TENDERER is to provide the latest SSHE SQP Assessments and any improvement actions assigned.

Guidance:

Purpose of the activity is to assess whether TENDERER has established adequate systems for Prequalification and Selection of Sub-Contractors.

**Sub Section 10.1: Post Award Assurance Program (Sub-Contractor Management)**

TENDERER to provide details of its program established in continued SSHE assessment and Competency Assurance of the/ its proposed Sub-Contractors as well as the Competency and Health of their workers.

Guidance:

Purpose of the activity is to assess how the TENDERER, once WORKS are awarded, monitors and tracks the organisations SSHE performance and how it assures the competency, health of their workers.

**Sub Section 11: Contract SSHE Requirements and Deliverables**

TENDERER to provide details of how it will cascade the Project Contractual and Site SSHE and Performance requirements to its Sub-Contractor Management and their Personnel. Especially when considering COMPANY and Project Policies, provisions, standards, arrangements, competencies, objectives, Exhibit L, penalties and SSHE Incentive as established to promote focus on leading indicator performance.

Furthermore, TENDERER is to provide example Sub-Contractor Contract SSHE articles for COMPANY review and indicate what revisions may be made in considering COMPANY SSHE Requirements as laid down in Exhibit L and associated Annexes.

Guidance:

Purpose of the activity is to assess how TENDERER cascades the SSHE requirements of the Project Contract to its Sub-Contractors.

*In absence of TENDERER own similar site standard instructions TENDERER is advised refer to the SSHE Requirements for SUB-CONTRACTORS in Exhibit L and may refer to this document in confirming some of its response to this requirement.*

**Sub Section 12: Equipment/ Tools/ Plant / Supplies Control, Inspection, Maintenance and Certification System Procedure**

TENDERER shall provide details of how it ensures that equipment both TENDERER and Sub-Contractor is maintained in a safe working condition as per manufacturer design and operation intent and in compliance with in country REGULATION and the requirements of Exhibit L.

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Offshore Cranes / Lifting Equipment and or Mobile Plant used for Lifting (materials and personnel)</li> <li>• Lifting Gear and appliance (materials and personnel)</li> <li>• Mobile Elevated Systems used for work at heights</li> </ul> | <ul style="list-style-type: none"> <li>• Electrical Tools and Supplies</li> <li>• Scaffolding</li> <li>• Radiography Sources &amp; X-Ray equipment</li> <li>• Industrial Gases</li> <li>• Safety Critical Equipment</li> <li>• Marine Vessels and Accommodation Barges, Anchoring systems</li> </ul> |
|--|--|

<ul style="list-style-type: none"> <li>Compressors, Generators, Welding Sets; including those used in ZONED environments</li> <li>Pressure Testing Equipment and Systems</li> </ul>	<ul style="list-style-type: none"> <li>Primary SAT and Air Diving Systems; including emergency systems</li> <li>Safety Critical and Emergency Equipment</li> <li>Offshore CCU</li> </ul>
<p>Guidance:</p> <ul style="list-style-type: none"> <li>The Programs or Procedure provided shall clearly identify the user, electrical and mechanical technician site arrival and pre-use recorded checks and certification validation process; including any equipment “safety passport” as issued by the TENDERER and the frequency of inspections as undertaken in relation to the use of the item or equipment. Equipment, Plant, Tools Programs COMPANY anticipates TENDERER will consider.</li> <li>TENDERER is to provide in support to his inspections program example inspections records and related tagging systems.</li> </ul>	

**Sub Section 13: Fitness to Work / Medical Check Up (MCU) Programs**

TENDERER shall provide workers who are medically fit to safely perform the tasks related to their specific jobs. TENDERER shall provide details of the MCU provided for its own personnel and required with its Sub-Contractors considering General and Discipline specific both MCU and that related to requirements of in country LAW, PTTEP standards and TENDERER own systems considering discipline risks. For example,

- General offshore workers
- Crane operators
- Divers
- Etc.

Guidance:

- Purpose of the activity is to assess whether disciplines including Sub-Contractors receive adequate employment, annualised and discipline specific MCU in meeting with Law and PTTEP requirements especially for Offshore Campaigns.
- TENDERER shall note that for the Offshore Scope; PTTEP Approved Doctor (PAD) shall be used to check the MCU forms and analysis prior to submission to COMPANY.

**Sub Section 14: Emergency Response Plan**

TENDERER shall evaluate the emergency situation for Project execution and provide examples for Onshore, Scope;

- Medical Emergency Response Plans Offshore, considering where applicable and Remote working and the competency of Medical Response Personnel, Response Timings.
- General Emergency Response and Contingency Plan, covering all potential events onshore and offshore and environments as well as hydrocarbon facilities where applicable.
- Diving Medical Response Plan
- Typhoon Rotating Storm Plan
- Security Management

Tenderer shall provide an example list of Safety Critical Emergency Equipment proposed for Onshore. Tenderer shall provide an example of Emergency Response Team Organisation Chart for Onshore considering;

- Management
- Offshore Support
- Medical Response Organisation (MRO) / Treating Hospitals
- Fire Fighters
- Muster Checkers
- Medical Response Team
- Recover from heights and confined spaces
- Spill
- Security Facility and Marine

Guidance:

Purpose of the activity is to assess whether TENDERER has robust systems for effective emergency response and contingency. Tenderer shall review Exhibit L relevant articles and refer to included Annex Emergency Standards and Procedures. If TENDERER own plans do not meet with COMPANY requirements, they are advised to provide details on how they plan to bridge the GAPS.

#### **Sub Section 14.1: Emergency Preparedness**

TENDERER shall provide details of Emergency Drill and Exercise Program for Onshore and example reports with improvement actions

Guidance:

Purpose of the activity is to assess whether TENDERER has robust systems for testing his own systems.

#### **Sub Section 15: Green Procurement**

Refer to Exhibit G Annex 2 Procurement and Material Control, Attachment-2 Green Procurement Process

TENDERER shall confirm its "Green Procurement" Process,

- Shall provide its Policy and "OR" management system with related to environmentally friendly process, for example related to; pollution prevention, ISO 14001 (if applicable, not mandatory), energy saving, GHG reduction, etc.
- To provide details of its awareness campaigns with related to environmental awareness.
- To provide Procedure or work instruction for waste management covering, for example; waste minimization (e.g. reduce, reuse, recycle concepts) and proper waste disposal.
- To provide details prevention methods / controls for related air pollution, wastewater, wastes to environment.
- To provide details of its Procedure/work instruction for oil/chemical handling and spill response.
- To provide details of its Procedure/work instruction Preventive maintenance program for equipment and facilities related to pollution treatment unit e.g. air emission treatment for paint shop, oil separator.
- To provide details tracking system for material and consumables utilization and waste minimization.
- To provide details system for ensuring painting products are low Volatile Organic Compound (VOC) or registration of "GREEN or ENVIRONMENTALLY FRIENDLY LABEL" or equivalent.
- Employees and workers participation program in environmental concern.
- To provide details of pending environmental complaints / convictions of any environmental related offense TENDERER shall complete the required documents under Exhibit G Annex 2 Procurement and Material Control, Attachment-2 (Green Procurement Process) and provide supportive evidence to the required queries of the questionnaire.

Guidance:

Purpose of the activity is to assess whether TENDERER has robust systems for GREEN Procurement considering the life cycle of product purchase, storage, use, and disposal as well as spill response and the environmental awareness of the personnel employed. Furthermore, its activity emissions and concepts for reducing its environmental foot print during Project execution.

#### **Sub Section 16: Management of Lifting Operation**

TENDERER shall demonstrate Lifting operation management system as following;

- Usage of cranes will be undertaken by a minimum of four competent personnel (crane supervisor, crane operator, signal man and rigger) as per Thai regulation.
- Lifting Plan & Lifting Calculation Method
- Training Certificate
- Lifting Equipment Certificate
- Lifting Equipment Maintenance record
- Lifting Operation Risk Assessment and JSA

<p><b>PROJECT SSHE RISK ASSESSMENT</b></p> <p><b>Annex 11 Contractor SSHE Capability Assessment Questionnaire</b></p> <p><b>Attachment-1: Project SSHE Risk Assessment</b></p>	
<b>Project Risk Ranking/ Assessment</b>	
<b>1. Contract Title:</b> BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES, BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT (T&I PART)	
<b>2. Contract No:</b>	<b>THC19-5246</b>

**Note:**

<p>TENDERER shall review and populate the Project SSHE Risk Assessment as per this format.</p> <ul style="list-style-type: none"> <li>• The pre-populated SSHE Hazards shall be assessed considering Project scope, and TENDERERS onshore activities. The qualification risk assessment shall be based on the COMPANY SSHE Risk Matrix as provided and Standard BS EN ISO 17776:2016 Petroleum and natural gas industries. Offshore production installations. Major Accident hazard management during the design of new installations.</li> <li>• TENDERER should consider the hazards without any risk mitigations, (initial risk) thereafter TENDERER shall detail the proposed risk mitigations and safety controls which TENDERER considers would if implemented reduce the risk and reassess the risk ranking which demonstrate risk values may be reduced to as low as possible.</li> </ul>
<p>Guidance:</p> <ul style="list-style-type: none"> <li>• TENDERER is expected to update the Risk Ranking table Mitigations and contingencies accordingly.</li> <li>• Purpose of the activity is to assess TENDERER concept and acknowledgement of Project related SSHE risks and the anticipated risk mitigation options it would consider during execution.</li> <li>• In the event of award, the document shall be utilized as applicable in preparation of specific Work Instructions, Job Safety Analysis and any relevant top hazards included within monthly Project Risk Management reviews.</li> <li>• TENDERER if successful will utilize and continually revise this document under the Project Monthly Risk Assessment.</li> <li>• TENDERER at its own discretion may add additional activity activities and assess accordingly; utilizing COMPANY Risk Standard and BS EN ISO 17776:2016 as necessary.</li> <li>• The Initial Risk Rankings are subjective assessment and will be revised with Project Team during execution.</li> </ul>

- Part 1: Project Management Risk Assessment
- Part 2: Onshore Fabrication Risk Assessment

### Risk Matrix

Tenderer is advised to confirm the Matrix revision validity within Exhibit L and SSHE Risk Management Standard SSHE-106-STD-400.

Impact Rating	Property damage (**)	People (*)	Environment (***)	Image / Reputation	Likelihood				
					Rare (1) Event occurrence is remote and/or never heard of in the EP industry	Unlikely (2) Event has occurred a few times in the EP industry or is unlikely to occur in PTTEP	Possible (3) Event has occurred several times in the EP industry or occurred once in PTTEP or may occur in PTTEP	Likely(4) Event has occurred several times per year in the EP industry or more than once per year in PTTEP or occurred in the same location or is likely to occur in PTTEP	Almost certain (5) Event has occurred frequently in the EP industry or occurred more than once per year at the same location or is expected to occur in PTTEP
<b>Critical (5)</b>	Loss > \$50M	Multiple fatalities	<ul style="list-style-type: none"> <li>Spill &gt; 100,000 bbl</li> <li>Tier 3</li> <li>International assistance</li> </ul>	<ul style="list-style-type: none"> <li>International media coverage</li> <li>Formal complaint from international authority</li> </ul>	Note (1) <b>MEDIUM (5, 1)</b>	Note (1) <b>MEDIUM (5, 2)</b>	<b>HIGH (5, 3)</b>	<b>HIGH (5, 4)</b>	<b>HIGH (5, 5)</b>
<b>Serious (4)</b>	Loss between \$5 - 50M	<ul style="list-style-type: none"> <li>Multiple LWDC</li> <li>One permanent disability</li> <li>One fatality</li> </ul>	<ul style="list-style-type: none"> <li>Spill &gt; 10,000 bbl</li> <li>Tier 2</li> <li>Regional assistance</li> </ul>	<ul style="list-style-type: none"> <li>National media coverage</li> <li>Local community protest with national influencer</li> </ul>	<b>MEDIUM (4, 1)</b>	<b>MEDIUM (4, 2)</b>	<b>MEDIUM (4, 3)</b>	<b>HIGH (4, 4)</b>	<b>HIGH (4, 5)</b>
<b>Significant (3)</b>	Loss between \$100K - 5M	<ul style="list-style-type: none"> <li>Single LWDC</li> <li>Multiple RWDC</li> </ul>	<ul style="list-style-type: none"> <li>Spill &gt; 1,000 bbl</li> <li>Tier 1</li> <li>Localised effect</li> </ul>	<ul style="list-style-type: none"> <li>Regional media coverage</li> <li>Online media spread</li> <li>Local community protest with provincial / state influencer</li> </ul>	<b>LOW (3, 1)</b>	<b>MEDIUM (3, 2)</b>	<b>MEDIUM (3, 3)</b>	<b>MEDIUM (3, 4)</b>	<b>HIGH (3, 5)</b>
<b>Moderate (2)</b>	Loss between \$10K - 100K	<ul style="list-style-type: none"> <li>MTC</li> <li>Single RWDC</li> </ul>	<ul style="list-style-type: none"> <li>Spill &gt; 1 bbl</li> <li>Minor effect</li> </ul>	<ul style="list-style-type: none"> <li>Local media interest influencer</li> <li>Online media post</li> <li>Local community aggregation</li> </ul>	<b>LOW (2, 1)</b>	<b>LOW (2, 2)</b>	<b>MEDIUM (2, 3)</b>	<b>MEDIUM (2, 4)</b>	<b>MEDIUM (2, 5)</b>
<b>Minor (1)</b>	Loss < \$10K	Minor injury with First Aid	<ul style="list-style-type: none"> <li>Spill &lt; 1 bbl</li> <li>Slight effect</li> </ul>	<ul style="list-style-type: none"> <li>No news coverage</li> <li>Non-influenced online media post</li> <li>Local community complaint</li> </ul>	<b>LOW (1, 1)</b>	<b>LOW (1, 2)</b>	<b>LOW (1, 3)</b>	<b>MEDIUM (1, 4)</b>	<b>MEDIUM (1, 5)</b>

**Part 1: Project Management Risk Assessment**

Note: Risk Ranking is made without consideration of Safety Precautions and Contingencies have no bearing on the risk ranking and are related to “response” arrangement in the event the risk is realized and a loss occurs).

Project Step / Activity	ISO Hazard Reference	Element: SA - Safety SE - Security H - Health E - Environment	Hazards Arising	Hazard Initiated by	Consequences	Initial Risk Evaluation		Risk Ranking Impact x Likelihood	SSHE Precautions (Risk mitigations to prevent hazard occurring) What will be implemented to reduce the Risk to ALARP	Contingencies (Emergency & Crisis arrangements, spare equipment, back up plans if applicable)	Post Risk Ranking (Residual Risk Impact x Likelihood)
						Impact (Consequence)	Likelihood (Frequency)				
Site to Site / Facility Travelling/ Transportation	21.15 21.16	SA, SE	<ul style="list-style-type: none"> <li>Collision</li> <li>Break down</li> <li>Speeding</li> <li>Detention / Fines by authorities</li> <li>fatigue</li> <li>Unfit</li> </ul>	<ul style="list-style-type: none"> <li>Poor driver competency / inability related to defensive driving</li> <li>Poor vehicle condition</li> <li>No journey management assessment</li> <li>Drugs &amp; Alcohol</li> <li>No MCU/ UDAT</li> <li>Long driving hours</li> </ul>	<ul style="list-style-type: none"> <li>Injury, Fatality</li> <li>Reputation</li> <li>Delay</li> </ul>	4	3	12 (medium)	<ul style="list-style-type: none"> <li>Defensive driver training</li> <li>Vehicle minim standards and inspections</li> <li>Driver license</li> <li>Driver SSHE Rules</li> <li>UDAT Program</li> <li>Fit To Work program / eye tests</li> <li>Journey Management Control / Planning</li> <li>Fatigue Management</li> </ul>	<ul style="list-style-type: none"> <li>ERP</li> <li>First Aid kits</li> <li>Fire Extinguisher</li> <li>Break down equipment</li> <li>Means of communication</li> </ul>	
Work Permit Arrangement (Services to Company/ Contractor and Sub-Contractor personnel)		SA, SE	<ul style="list-style-type: none"> <li>Detention of personnel by authorities</li> </ul>	<ul style="list-style-type: none"> <li>Lack of assessment in relation to visa / WP process Company and Contractor</li> </ul>	<ul style="list-style-type: none"> <li>Detained by authorities</li> <li>Reputation</li> <li>Project Delay</li> </ul>	3	3	9 (medium)	-		
Accommodation Arrangements (Services to Company/ Contractor and Sub-Contractor personnel)	27.02 24.04 24.05 24.06	SA, SE, H, E	<ul style="list-style-type: none"> <li>Health Impacts</li> <li>Fire / Explosion</li> <li>Security</li> </ul>	<ul style="list-style-type: none"> <li>Ineffective assessment of facilities</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Ill-health</li> <li>Project damage</li> <li>Delay</li> <li>Thefts/ assaults</li> </ul>	4	3	12 (medium)	-		
Employment of Sub-Contractors	27.02 27.04	SA, SE, H, E	<ul style="list-style-type: none"> <li>Disputes/ Strike</li> </ul>	<ul style="list-style-type: none"> <li>Delayed payment to subcontractor salaries</li> <li>Poor Cash Flow</li> </ul>	<ul style="list-style-type: none"> <li>Reputation</li> <li>Project Delay</li> </ul>	4	4	16 (high)			
Country - Socio Political Events Employment of local workforce (avoid dispute) / Elections & Religious Events, Labour days (protests)	27.04 27.02	SE, SA	<ul style="list-style-type: none"> <li>Dispute with local community</li> </ul>	<ul style="list-style-type: none"> <li>Ineffective CSR plan</li> <li>Poor CSR consultation process and plan</li> </ul>	<ul style="list-style-type: none"> <li>Reputation</li> <li>Project Delay</li> <li>Injury</li> </ul>	3	3	9 (medium)	-		
Natural Disasters/ Weather	9.01 9.02 9.03 25.09 24.04 24.05	SA, E, SE, H	<ul style="list-style-type: none"> <li>Earthquake</li> <li>Storm / Lightning</li> <li>Flooding</li> <li>Security Impacts: Civil Unrest</li> <li>Water &amp; Food Borne Bacteria</li> </ul>	<ul style="list-style-type: none"> <li>Natural event</li> </ul>	<ul style="list-style-type: none"> <li>Project Delay</li> <li>Injury/ fatality</li> <li>Ill-health</li> <li>Damage</li> <li>Fire/ Explosion</li> </ul>	4	3	12 (medium)	-		

## Part 2: Onshore Fabrication Risk Assessment

Note: Risk Ranking is made without consideration of Safety Precautions and Contingencies have no bearing on the risk ranking and are related to “response” arrangement in the event the risk is realized and a loss occurs).

Project Step / Activity	ISO Hazard Reference	Element: SA - Safety SE - Security H - Health E - Environment	Hazards Arising	Hazard Initiated by	Consequences	Initial Risk Evaluation		Risk Ranking Impact x Likelihood	SSHE Precautions (Risk mitigations to prevent hazard occurring) What will be implemented to reduce the Risk to ALARP	Contingencies (Emergency & Crisis arrangements, spare equipment, back up plans if applicable)	Post Risk Ranking (Residual Risk Impact x Likelihood)
						Impact (Consequence)	Likelihood (Frequency)				
Award / appointment of Fabrication Sub-Contractors	25.12 25.13 25.14 25.15 25.16	SA, SE, H, E	<ul style="list-style-type: none"> <li>Unaware of Hazards/ Lack of Awareness</li> <li>Unaware of SSHE systems</li> <li>Incompetent personnel</li> <li>Poor SSHE culture</li> <li>Contractor Leadership 'standoff' – Sub-Contractor responsibility</li> </ul>	<ul style="list-style-type: none"> <li>Lack of effective Pre-Selection and Qualification process</li> <li>Ineffective cascading of Contract SSHE requirements</li> </ul>	<ul style="list-style-type: none"> <li>Increased frequency and severity of Incidents/ accidents</li> <li>Project Delay</li> <li>Downgrade SSHE incentive</li> <li>Injury, damage, delay</li> <li>Reputation</li> <li>Incentive \$ Downgrade</li> </ul>	4	4	16 (high)	<ul style="list-style-type: none"> <li>Effective Pre-Selection and Qualification Process</li> <li>Contract Exhibits include details of HSE and cascade requirements of Project including and \$ Weighted requirements</li> <li>Clear HSE Deliverables established for Sub-Contractor</li> <li>Effective Induction &amp; Training Program and certification verification</li> <li>Competent Supervision</li> <li>Audit and Inspection corrective action plans</li> <li>Sub-Contractor HSE Performance reports and reviews</li> <li>Developed Project SSHE rules with Company Life Saving Icons</li> </ul>	<ul style="list-style-type: none"> <li>Approved ERP</li> <li>Approved ERT</li> <li>Tested ERT Systems</li> <li>Alternate Sub-Contractors pre-selection</li> </ul>	
Award / appointment of Fabrication & Offshore Sub-Contractors	As above	SA, SE, H, E	<ul style="list-style-type: none"> <li>Focused on Productivity</li> <li>Poor SSHE culture/ attitude</li> <li>Sub-Contractor dispute</li> </ul>	<ul style="list-style-type: none"> <li>No SSHE deliverables within Contract terms</li> <li>Contracts department failure to review Project Terms and Conditions for Sub-Contractor T&amp;CS</li> </ul>	As above	4	4	16 (high)	-	-	
Work / Task Supervision	26.06 25.13 25.14 25.15 25.16	SA,H, E	<ul style="list-style-type: none"> <li>Poor SSHE Competency of Supervisor</li> <li>Stop Work conflicts with Company during execution phase</li> <li>Productivity Focus</li> </ul>	<ul style="list-style-type: none"> <li>Project Delay</li> <li>Injury</li> <li>Damage</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Reputation</li> <li>Incentive \$ Downgrade</li> </ul>	4	4	16 (high)	-	-	
Onsite Transportation	29.01 21.15 21.16	SA, H,	<ul style="list-style-type: none"> <li>Pedestrians/ other vehicles</li> <li>Speeding</li> <li>Unfit</li> <li>Drugs and Alcohol</li> </ul>	<ul style="list-style-type: none"> <li>Poor driver competency / inability related to defensive driving</li> <li>Poor vehicle condition</li> <li>Lack of speed limitations / Site Rules</li> <li>No MCU / UDAT</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Reputation</li> <li>Incentive \$ Downgrade</li> </ul>	4	3	12 (medium)	-	-	



Work at Nights/ Overtime	25.14 25.15 25.16 26.04 26.05 25.09	SA	<ul style="list-style-type: none"> <li>Fatigue</li> <li>Darkness / shadow</li> <li>Unfit</li> </ul>	<ul style="list-style-type: none"> <li>Ineffective work planning</li> <li>No Policy for Overtime / Out Of hour working</li> <li>Lack of lighting</li> <li>Lack of supervision</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Incentive \$ Downgrade</li> </ul>	3	3	9 (medium)	-	
Mobilization of personnel	25.13 25.12 29.01	SA, H	<ul style="list-style-type: none"> <li>Mismatch of work to physical abilities</li> <li>Unfit</li> </ul>	<ul style="list-style-type: none"> <li>Infective personnel assessment</li> <li>Lack of Supervision</li> <li>Lack of effective MCU</li> <li>Ineffective Induction</li> <li>No Green Hat Policy</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Incentive \$ Downgrade</li> </ul>	3	3	9 (medium)	-	
Work at Heights	6.01 6.02 6.03 25.12	SA	<ul style="list-style-type: none"> <li>Personnel at height &gt;2m</li> <li>Personnel at height &lt;2m</li> <li>Overhead equipment</li> <li>Mismatch of work to physical abilities</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate access arrangement</li> <li>No WAH policy</li> <li>Lack of Fall protection system</li> <li>Lack tool lanyard</li> <li>Poor housekeeping</li> <li>No Cordon below work</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Damage</li> <li>Reputation</li> <li>Delay</li> <li>Incentive \$ Downgrade</li> </ul>	4	3	12 (medium)	-	
Lifting using Cranes & Lifting using Mechanical means other than cranes	6.03 9.01 15.04	SA	<ul style="list-style-type: none"> <li>Overhead equipment</li> <li>Bad weather/ winds/ lighting</li> <li>Dropped object</li> <li>Failure of equipment</li> <li>Nip point</li> </ul>	<ul style="list-style-type: none"> <li>Competence</li> <li>No work area cordon</li> <li>Bad weather</li> <li>Lack of impact glove/ load control</li> <li>Lifting overhead</li> </ul>	<ul style="list-style-type: none"> <li>Fatality</li> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Reputation</li> <li>Incentive \$ Downgrade</li> </ul>	4	3	12 (medium)	-	
Naked Flame Hot Work	31.0 11.03 2.03 2.04 3.01 19.06 20.06	SA, E	<ul style="list-style-type: none"> <li>Fire / explosion</li> <li>Use of propane / LPG</li> <li>Smoke/ Fumes</li> </ul>	<ul style="list-style-type: none"> <li>Gas cylinders leak</li> <li>Fuel storage</li> <li>Work conflicts</li> <li>Poor Housekeeping/ combustibles</li> <li>Hot Sparks/ Slag</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Damage</li> <li>Delay</li> <li>Incentive \$ Downgrade</li> </ul>	3	3	9 (medium)	-	
Use of Grinders/ Hand Held Grinding Machines	8.04 8.05	SA	<ul style="list-style-type: none"> <li>Use of hazardous hand tools (grinding, sawing)</li> <li>Equipment with moving or rotating parts</li> <li>Fire / explosion</li> <li>Use of propane / LPG</li> <li>Disc failure</li> </ul>	<ul style="list-style-type: none"> <li>Gas cylinders leak</li> <li>Fuel storage</li> <li>Work conflicts</li> <li>Poor Housekeeping/ combustibles</li> <li>Hot Sparks/ Slag</li> <li>Incorrect disc</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Damage</li> <li>Delay</li> <li>Reputation</li> <li>Incentive \$ Downgrade</li> </ul>	4	4	16 (high)	-	
Confined Space Entry	19.01 19.02 20.02 25.09 25.04	SA	<ul style="list-style-type: none"> <li>Insufficient oxygen atmospheres</li> <li>Excessive CO2</li> <li>Smoke/ Fumes (hot work/ exhausts)</li> <li>Darkness/ Shadow</li> <li>Drowning /</li> <li>Heat Stress</li> </ul>	<ul style="list-style-type: none"> <li>Running Mobile plant</li> <li>Hot Work</li> <li>Inadequate lighting</li> <li>Entry to Restrictive/ enclosed space / Excavation</li> <li>Water Ingress</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Damage</li> <li>Reputation</li> <li>Delay</li> <li>Incentive \$ Downgrade</li> </ul>	5	4	20 (high)	-	
Blasting	22.12 31.01 19.01 15.05	SA, E	<ul style="list-style-type: none"> <li>Dusts</li> <li>Fire / explosion</li> <li>Insufficient oxygen</li> <li>Static</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate air supply</li> <li>Hot Work conflict</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Damage</li> <li>Reputation</li> </ul>	4	4	16 (high)	-	

Bundled Phases 3 Wellhead Platforms, Associated Pipelines, Brownfield Modifications and Tie-ins Project  
(T&I Part)

	25.03 25.04 25.09		<ul style="list-style-type: none"> <li>Respiratory damage</li> <li>Ingress sensitivity equipment / piping</li> <li>Hearing damage</li> <li>Heat Stress</li> <li>Darkness</li> </ul>	<ul style="list-style-type: none"> <li>Blasting Media friction</li> <li>Hazardous Media contains Silica</li> <li>Lack of preservation</li> <li>Noise</li> <li>Lack of area control</li> <li>Inadequate lighting</li> </ul>	<ul style="list-style-type: none"> <li>Delay</li> <li>Incentive \$</li> <li>Downgrade</li> </ul>					
Pressure Testing	5.02 5.04 25.02 25.03  12.01 25.04		<ul style="list-style-type: none"> <li>Overpressure</li> <li>Hearing damage</li> <li>Rupture</li> <li>Cold burns (N2/ He)</li> <li>Heat Stress</li> </ul>	<ul style="list-style-type: none"> <li>Water under pressure in pipework's</li> <li>Lack of area control</li> <li>Air under high pressure</li> <li>Damaging noise release from valves/ gauges</li> <li>Non-hydrocarbon gas under pressure in pipework's</li> <li>Pressure Shock/ Hammer</li> <li>Cold surfaces</li> </ul>	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Damage</li> <li>Reputation</li> <li>Delay</li> <li>Incentive \$</li> <li>Downgrade</li> </ul>	4	4	16 (high)	-	

**PART II**

**FORM OF CONTRACT**

(This part contains ..... pages in total)



**PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED**

**FORM OF CONTRACT FOR CFT No. THC19-5246**

**WITH**

.....

**FOR**

**BUNDLED PHASES 3 WELLHEAD PLATFORMS, ASSOCIATED PIPELINES,  
BROWNFIELD MODIFICATIONS AND TIE-INS PROJECT**

**(T&I PART)**

## **AGREEMENT and Annexes**

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ANNEX-10	Form of NOTICE TO PROCEED

## RECITALS

**THIS CONTRACT**, is made and entered into this ..... day of ..... 2020,

### BY AND BETWEEN

**PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED, (“PTTEP”)**, a company organized and existing under the laws of Thailand, having its registered office at 555/1, Energy Complex Building A, Floors 6, 19 – 36, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand, acting as Operator for and on behalf of Blocks 14A, 15A and 16A in the Gulf of Thailand (“ARTHIT Concession”) for the Arthit Consortium which is presently comprised of: :

	Shares of Interest
- PTT Exploration and Production Public Company Limited	80 %
- Chevron Thailand Exploration and Production, Ltd.	16 %
- MOECO Thailand Company Limited	4 %

**PTTEP INTERNATIONAL LIMITED, (“PTTEPI”)**, a company organized and existing under the laws of Thailand, having its registered office at 555/1 Vibhavadi Rangsit Road, Energy Complex Building A, Floors 6, 19 - 36, Chatuchak, Bangkok 10900, Thailand, acting as Operator for and on behalf of Block G8/50 in the Gulf of Thailand for the G8/50 Consortium which is presently comprised of:

	Shares of Interest
- PTT International Limited	80 %
- Chevron Thailand Exploration and Production, Ltd.	16 %
- Siam MOECO Limited	4 %

**PTTEP ENERGY DEVELOPMENT COMPANY LIMITED, (“PTTEP ED”)**, a company organized and existing under the laws of Thailand, having its registered office at 555/1, Energy Complex Building A, Floors 6, 19 – 36, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand, acting as an operator

(i) for and on behalf of Block G1/61 for the G1/61 Consortium which is presently composed of::

	Shares of Interest
- PTTEP Energy Development Company Limited	60%
- MP G2 (Thailand) Limited	40%

(ii) and for Block G2/61 on its own behalf.

**PTTEP, PTTEPI and PTTEP ED** are referred to individually and collectively herein as “COMPANY”, as the context may require.

### AND

..... (hereinafter referred to as the “CONTRACTOR” and/or “T&I CONTRACTOR”), a company organized and existing under the laws of ....., having its registered office at ..... and represented by ..... in his/her capacity as .....

## **WITNESSETH**

**WHEREAS**, the COMPANY in support of its hydrocarbon activities, hereby entrusts the T&I CONTRACTOR to perform the T&I WORK including; project management, engineering, procurement services, supply, onshore construction, commissioning (to the extent specified), transportation and offshore installation of new wellhead platforms, sub-sea pipelines and tie-ins, existing topside relocation, brownfield modifications and the FSO WORK all in accordance with the terms and requirements of this CONTRACT, and if requested, to provide assistance to the COMPANY during offshore commissioning and start up of the PLANT as per sub-article 14.11.

**WHEREAS**, the T&I CONTRACTOR represents and warrants that he possesses the necessary knowledge, expertise, that he is fully experienced and is technically and otherwise competent to perform the T&I WORK, that he has the required facilities, that he is properly financed, organized, equipped, resourced and that he has the required experienced and qualified PERSONNEL to perform the T&I WORK in accordance with the terms and requirements of this CONTRACT.

**NOW THEREFORE**, the PARTIES agree as follows:

### **Article 1** **Object of the CONTRACT**

#### 1.1 Performance of the T&I WORK

The COMPANY hereby entrusts the T&I CONTRACTOR with the performance of the T&I WORK and the T&I CONTRACTOR hereby agrees to perform and complete the T&I WORK in full compliance with the terms and the requirements of this CONTRACT.

#### 1.2 Remedying of Defects and Deficiencies

The T&I CONTRACTOR shall complete the PLANT in compliance with the terms and requirements of this CONTRACT and subject to sub-article 1.4 and 20.2, remedy defects and deficiencies in the T&I WORK and the PLANT in compliance with the terms and requirements of this CONTRACT.

#### 1.3 Fit for Purpose Requirements

Subject to sub-article 1.4, the T&I WORK and the PLANT, shall be fit for the purposes for which they are intended in accordance with this CONTRACT. However, if such purposes are not stated for any part of a PLANT component or for any of the T&I WORK it shall be fit for its ordinary purpose.

#### 1.4 T&I CONTRACTOR Responsibilities

With regard to the provisions of sub-articles 1.2 and 1.3, the T&I CONTRACTOR shall not be responsible in such respects for the EPC WORK and its PLANT components and related items delivered by the EPC CONTRACTOR.

### **Article 2** **Definitions and Interpretation**

#### 2.1 Definitions

The following expressions and derivatives thereof, appearing in upper case letters in this CONTRACT shall have the meaning hereby assigned to them. Unless otherwise specified, it being understood that such expressions appearing in lower case letters shall have their common meaning as the context requires. Further words and/or expressions may be defined in this AGREEMENT and/or the other T&I CONTRACT DOCUMENTS.

**AFFILIATE** in relation to any person means an entity controls, is controlled by, or is under common control with such person. For the purpose of this definition, “control” means the power to dictate and conduct the policy of such person, when such person is a company, the power to dictate and conduct the policy of such company through the direct or indirect control of more than fifty percent (50%) of the shares or voting rights in such company. Notwithstanding the foregoing, PTT Public Company Limited shall not be considered as an AFFILIATE of the COMPANY.

**AGREEMENT** means the present document comprising the recitals and articles 1 to 58.

**ANNEXES** mean following Annexes 1 through 10. The term ANNEX shall be construed accordingly.

ANNEX-1A	Form of Performance Bank Guarantee
ANNEX-1/B	Form of Bank Guarantee Demand
ANNEX-1/C	Form of Parent Guarantee
ANNEX-2/A	Mutual Indemnity and Waiver of Recourse Agreement (CONTRACTOR)
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ANNEX-8	Form of FINAL ACCOUNT CERTIFICATE
ANNEX-9	Form of FINAL ACCEPTANCE CERTIFICATE
ANNEX-10	Form of NOTICE TO PROCEED

**APPLICABLE LAWS** means all and any statutes, decrees, ordinances, rules, regulations, by-laws, notices, circulars, guidelines, specifications, codes, orders, directions and other laws and conventions in effect from time to time, and any amendments or re-enactments thereto of any GOVERNMENT, any federal, state, provincial, or local government authority, any part thereof, and any department, authority, instrumentality, agency, bureau, judicial body or tribunal, having jurisdiction over the PARTIES, the EPC WORK, the T&I WORK, the performance of this CONTRACT, area or location where the T&I CONTRACTOR shall perform the T&I WORK, and which have the force of law. For clarity, the requirement to comply with APPLICABLE LAWS is a provision and term of this CONTRACT.

**APPROVAL** means review and comment with regard to CONTRACTOR DOCUMENTS submitted to the COMPANY pursuant to sub-article 14.4, and Exhibit A Annex-1 APPROVAL PROCESS.

The terms APPROVE and APPROVED shall be construed accordingly.

The term approve shall have its ordinary meaning, the terms approval, and approved shall be construed accordingly.

Any such APPROVAL or approval by the COMPANY shall not constitute agreement, validation or endorsement by the COMPANY, and shall not relieve the T&I CONTRACTOR of any of his obligations, responsibilities or liabilities under this CONTRACT, or APPLICABLE LAWS and shall only indicate that the COMPANY has no further comments at the time such an APPROVAL/approval is made.

The terms APPROVE, APPROVAL, APPROVED, approve, approval, approved shall be deemed to be completed by the expression “in writing”.

**CHANGE ORDER** means a modification to this CONTRACT made in accordance with article 22 and the other terms and requirements of this CONTRACT.

**CLAIMS** means all claims, damages, liabilities, losses, demands, liens, encumbrances, causes of action of any kind, obligations, costs, judgments, interest, and awards (including, without limitation, legal counsel fees and costs of litigation if awarded as part of the judgment in favor of the person asserting the CLAIMS), whether created by law, contract, tort, or otherwise, arising out of, related to, or in any way connected with this CONTRACT or the performance of it. The term CLAIM shall be construed accordingly.

**COMPANY GROUP** means the COMPANY, any COMPANY OTHER CONTRACTORS, CO-VENTURERS, their respective AFFILIATES and each of their PERSONNEL.

**COMPANY INDEMNIFIED PARTIES** means the COMPANY GROUP (other than T&I CONTRACTOR INDEMNIFIED PARTIES) performing work for or in relation to the PROJECT as well as SUPPLIER when such SUPPLIER is carrying out activities on or between a WORKSITE.

**COMPANY OTHER CONTRACTORS** mean:

- a) any person (other than a member of the CONTRACTOR GROUP) that is a party to a contract with the COMPANY and which is in any way connected to, or in proximity with, the T&I CONTRACTOR’s performance of this CONTRACT; and
- b) that person’s subcontractors at any tier.

**COMPANY ITEMS** mean the items identified as such in Exhibit I.

**COMPANY REPRESENTATIVE** means the person appointed by the COMPANY as its duly authorized representative with respect to this CONTRACT pursuant to article 8.

**COMPLETION DATE** means a date identified as such in Exhibit C (and calculated in accordance with the applicable Exhibit C requirements and as be amended by means of CHANGE ORDER) on or before which the T&I CONTRACTOR is required to complete the stated portion of the T&I WORK. The term required COMPLETION DATE shall be construed accordingly.

**COMPANY PROVIDED INFORMATION** means the documents and information described as COMPANY PROVIDED INFORMATION in Exhibit C.

**CONFIDENTIAL INFORMATION** means any information and documents (in any form and of whatever nature) obtained under, or relating in any way to, this CONTRACT, the affairs of the COMPANY, including all information and data obtained by the T&I CONTRACTOR from the COMPANY GROUP or otherwise in the performance of the T&I WORK, the PLANT and/or the PROJECT.

**CONFLICT** means any of; error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy or mis-description.

**CONSEQUENTIAL LOSS** means indirect or consequential loss and without limitation, loss of; revenue, profit, anticipated profit, use, production, productivity, contracts, business opportunity, COMPANY production facilities downtime (except when such COMPANY facilities downtime is specifically compensated under this CONTRACT, including under article 34 (Liquidated Damages), T&I CONTRACTOR, T&I CONTRACTOR, their respective VENDOR and SUBCONTRACTOR facilities downtime (except when such facilities downtime is specifically compensated under this CONTRACT), which is incurred whether such liability is based or claimed to be based upon any negligence, or through breach of duty (statutory or otherwise) or other acts or omissions irrespective of whether such loss is direct, or indirect, or consequential and whether or not foreseeable at the EFFECTIVE DATE.

**CONSTRAINT** means any and all; constraints, restraints, restrictions, limitations, acts of GOVERNMENT, APPLICABLE LAWS and any other matters and all events of whatever kind that restrict, prevent, affect or impede the timely performance of the T&I WORK, but does not include things for which the T&I CONTRACTOR is entitled to an extension of time for any of the reasons listed in sub-article 15.5.

**CONSTRUCTION EQUIPMENT** means all materials, supplies, plant (floating or otherwise), vessels, tugs, marine craft, machinery, equipment, tools, buildings and structures, including warehouses, offices, docks, berths, moorings, camps, garages, workshops, scaffolding, temporary work and all other items supplied used or consumed by the T&I CONTRACTOR and/or his SUBCONTRACTOR, in the performance of the T&I WORK but not incorporated into or forming part of the PLANT. The term CONSTRUCTION EQUIPMENT includes MARINE SPREAD but does not include WORKSHOP, WORKSITE, CONTRACTOR ITEMS, and COMPANY ITEMS. The term T&I CONSTRUCTION EQUIPMENT shall be construed accordingly.



**CONTRACT** means this signed AGREEMENT together with ANNEXES 1 to 10 and the following EXHIBITS including any Annexes and Attachments which are attached to and made part thereof.

- Exhibit A Scope of T&I WORK
- Exhibit B Schedule of Prices and Rates
- Exhibit C WORK TIME SCHEDULE
- Exhibit D Not Used
- Exhibit E DESIGN DOSSIER
- Exhibit F Particular Conditions for the Performance of the T&I WORK
- Exhibit G Co-ordination Procedures
- Exhibit H Quality Management
- Exhibit I COMPANY ITEMS
- Exhibit J VENDORS and SUBCONTRACTORS
- Exhibit K Organization, Resources and KEY PERSONNEL
- Exhibit L SSHE Requirements for Performance of T&I WORK

The term T&I CONTRACT shall be construed accordingly.

**CONTRACT DOCUMENTS** mean this AGREEMENT, ANNEXES and the EXHIBITS specified herein, including any Annexes and Attachments thereto as well as any documents referenced therein whether attached or not and signed CHANGE ORDERS. The term T&I CONTRACT DOCUMENTS shall be construed accordingly.

**CONTRACT PRICE** means the aggregate of all sums payable under this CONTRACT calculated in accordance with Exhibit B and the other terms and requirements of this CONTRACT, as may be modified by CHANGE ORDERS.

It being understood that the Initial CONTRACT PRICE for a PHASE is the amount to be established by the PARTIES immediately after the issuance of a NOTICE TO PROCEED for such PHASE, calculated in the manner prescribed in Exhibit B. It also being understood that the Final CONTRACT PRICE for a PHASE shall be the Initial CONTRACT PRICE for such PHASE as modified by CHANGE ORDERS, established as per the requirements of article 22, sub-article 32.6 and the other terms and requirements of this CONTRACT.

Accordingly, the Final CONTRACT PRICE for this CONTRACT shall be the total aggregate sum of the Final CONTRACT PRICES for all PHASES.

**CONTRACTOR DOCUMENTS** mean all documents prepared and/or issued on or after the EFFECTIVE DATE, by the T&I CONTRACTOR and/or SUBCONTRACTORS and/or VENDORS and to the extent applicable by SUPPLIERS, which are required and/or necessary for the proper and complete performance of the T&I WORK in accordance with the terms and requirements of this CONTRACT. The term T&I CONTRACTOR DOCUMENTS shall be construed accordingly.

**CONTRACTOR GROUP** means the T&I CONTRACTOR, any SUBCONTRACTOR and any VENDOR and their respective AFFILIATES and each of their PERSONNEL.

**CONTRACTOR INDEMNIFIED PARTIES** means the CONTRACTOR GROUP to the extent they are involved in the performance of T&I WORK. For the avoidance of doubt, CONTRACTOR INDEMNIFIED PARTIES shall include VENDOR when are carrying out activities on or between the WORKSITE.

**CONTRACTOR ITEMS** means any of; skid mounted assemblies, packaged equipment and associated items, itemized (tagged) materials and equipment, non-itemized (bulk) materials and all other things, procured by the T&I CONTRACTOR and/or SUBCONTRACTOR for and in connection with the T&I WORK for incorporation into the PLANT and/or related PLANT components and/or for HANDOVER to the COMPANY as per the requirements of this CONTRACT. The term T&I CONTRACTOR ITEMS shall be construed accordingly.

It being understood that Material Group 1 CONTRACTOR ITEMS shall have the meaning further ascribed in Exhibit A, Annex-12. The term Material Group 1 T&I CONTRACTOR ITEMS shall be construed accordingly.

It also being understood that required quantities of T&I CONTRACTOR ITEMS shall include the net material take off quantity, as per Engineering MTO plus allowances for construction loss, damage and waste, overbuy quantity, and to the extent applicable construction spare parts, first fills, inhibitors, test kits, consumables, special tools, and anything else required and/or necessary.

**CONTRACTOR REPRESENTATIVE** means the person appointed by the T&I CONTRACTOR as his duly authorized representative with respect to this CONTRACT pursuant to article 9. The term T&I CONTRACTOR REPRESENTATIVE shall be construed accordingly.

**CO-VENTURER** means any person with whom the COMPANY has entered into a joint operating agreement(s) or production sharing agreement(s) in respect of which this CONTRACT is being performed.

**DESIGN DOSSIER** means the documents and other information comprehensively listed in Exhibit E as forming Exhibit E and any and all documents included by reference in the listed documents, irrespective of if attached or not.

**EFFECTIVE DATE** means the date stated in article 56 on which this CONTRACT comes into force.

**EPC CONTRACTOR** means the contractor performing EPC WORK under the Contract No. THC19-5245 with regard to the PROJECT.

**EPC WORK** means the work to be performed by the EPC CONTRACTOR pursuant to the Contract No. THC19-5245 for and in connection with the development and timely completion of the PLANT and the respective PHASES thereof.

**EXCEPTED RISKS** have the meaning given in sub-article 37.2.

**EXHIBITS** mean Exhibits A through L together with any Annexes and Attachments thereto, as well as any documents included by reference in such Exhibits, Annexes and/or Attachments, irrespective of if attached or not. The term Exhibit shall be construed accordingly.

**EXISTING G1/61 CONCESSION (ERAWAN CONCESSION)** means Blocks B10 and B11 under Petroleum Concession No.1/2515/5 and Blocks B12 and B13 under Petroleum Concession No.2/2515/6, collectively also referred to Exploration Block G1/61 in the Gulf of Thailand. The term G1/61 (ERAWAN CONCESSION) shall be construed accordingly.

**EXISTING G1/61 OPERATOR** means Chevron Thailand Exploration and Production Ltd. who is a current operator of EXISTING G1/61 CONCESSION.

**EXISTING G1/61 OPERATOR GROUP** means the EXISTING G1/61 OPERATOR its co-venturers, their respective AFFILIATES, EXISTING G1/61 OPERATOR's contractors and their subcontractors.

**EXISTING G2/61 CONCESSIONS (BONGKOT CONCESSION)** means block 15 under Petroleum Concession No.5/2515/9, and block 16 and 17 under Petroleum Concession No.3/2515/7. The term G2/61 (BONGKOT CONCESSION) shall be construed accordingly.

**EXISTING G2/61 OPERATOR** means PTT Exploration and Production Public Company Limited acting on behalf of the existing concessionaires which are itself and TOTAL E&P Thailand.

**EXISTING G2/61 OPERATOR GROUP** means the EXISTING G2/61 OPERATOR its co-venturers, their respective AFFILIATES, EXISTING G2/61 OPERATOR's contractors and their subcontractors.

**EXISTING OPERATORS** means EXISTING G1/61 OPERATOR and EXISTING G2/61 OPERATOR.

**FINAL ACCEPTANCE CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR after the end of the WARRANTY PERIOD for each PHASE pursuant to article 21, in the form as per ANNEX 9 hereto to record the effective date of such FINAL ACCEPTANCE CERTIFICATE. The term FINAL ACCEPTANCE shall be construed accordingly.

**FINAL ACCOUNT CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 32.6.3.

**FINAL DOCUMENTATION** means a type of T&I CONTRACTOR DOCUMENTS as further described and explained in Exhibit A, Exhibit A Annex-1 and elsewhere in this CONTRACT. The term T&I FINAL DOCUMENTATION shall be construed accordingly.

**FORCE MAJEURE** means any act or event which causes or contributes to a PARTY's failure to fulfil any of its obligations under this CONTRACT, provided the event is beyond the reasonable control of the PARTY, is not attributable to their fault or negligence and could not have been foreseen or prevented by them exercising reasonable diligence but shall not include:

- a) a strike, lock-outs, industrial disputes or any labor disruption affecting the T&I WORK that is originated or participated in by T&I CONTRACTOR's PERSONNEL and/or their respective SUBCONTRACTOR and/or VENDOR PERSONNEL.
- b) breakdown and/or loss of use of any T&I CONTRACTOR EQUIPMENT unless caused by FORCE MAJEURE;
- c) a contractual commitment between the T&I CONTRACTOR and a third party;
- d) an act or omission of any member of the CONTRACTOR GROUP;
- e) any financial distress on the part of the CONTRACTOR GROUP including insolvency, or bankruptcy or upon the occurrence of any of the items listed in sub-article 48.4.1 c); or
- f) standby and or evacuation of MARINE SPREAD due to; meteorological cause (including TROPICAL CYCLONE), marine, oceanographic and hydrological reasons. It being understood that compensation for approved Weather Standby of the MARINE SPREAD and compensation for evacuation of the MARINE SPREAD

from the SITE, because of TROPICAL CYCLONE shall be as per Exhibit B and subject to the other terms and requirements of this CONTRACT.

Without limitation and/or restriction on the foregoing, FORCE MAJEURE shall include but is not limited to GOVERNMENT or authority orders that perniciously impact the COMPANY's operation and/or procurement functions and/or the performance of the COMPANY under this CONTRACT and/or otherwise.

**GENERAL AVERAGE** shall have the same meaning as per York/Antwerp Rules.

**GOVERNMENT** means any federal, national or local authority, or their agencies and instrumentalities having jurisdiction over any WORKSITE.

**GROSS NEGLIGENCE** for the purpose of this CONTRACT and notwithstanding the APPLICABLE LAWS means such acts, wanton, reckless conduct, carelessness or omission as constitutes in effect an utter disregard for their harmful, foreseeable and avoidable consequences. The term GROSS NEGLIGENCE is deemed to include willful misconduct which means an intentional, knowing-conscious or reckless act or omission, the pernicious results of which are detrimental to the interest of the other PARTY.

**INTELLECTUAL PROPERTY RIGHTS** mean patents, rights to apply for patents, trademarks, trade names, service marks, domain names, copyrights and all applications and registration of worldwide, schematics, industrial models, inventions, know-how, trade secrets, computer software programs, and other proprietary information.

**INTERIM CERTIFICATE** means any certificate(s) issued by the COMPANY pursuant to sub-article 19.1. The term INTERIM CERTIFICATES shall be construed accordingly.

- a) Not used
- b) **READY FOR LOAD OUT CERTIFICATE** means a certificate(s) issued by the COMPANY to the EPC CONTRACTOR (witnessed and endorsed by the T&I CONTRACTOR) pursuant to sub-article 19.1.1 b). The term READY FOR LOAD OUT shall be construed accordingly. The term Load Out Operations shall have the meaning ascribed in Exhibit A.
- c) **READY FOR TRANSPORTATION CERTIFICATE** means a certificate issued by the COMPANY to the EPC CONTRACTOR (witnessed and endorsed by the T&I CONTRACTOR) pursuant to sub-article 19.1.1 c). The term READY FOR TRANSPORTATION shall be construed accordingly. The term Ready for Transportation Operations shall have the meaning ascribed in Exhibit A.
- d) **READY FOR RELOCATION CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 19.1.1 d). The term READY FOR RELOCATION shall be construed accordingly. The term Relocation Operations shall have the meaning ascribed in Exhibit A.
- e) **READY FOR INSTALLATION CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 19.1.1 e). The term READY FOR INSTALLATION shall be construed accordingly.
- f) **HANDOVER CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 19.1.1 f). The term HANDOVER shall be construed accordingly.

- g) **MARINE SPREAD RELEASE CERTIFICATE** means a certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 19.1. g) in respect of a vessel and or component of the MARINE SPREAD.

**KEY PERSONNEL** means the PERSONNEL identified as such in Exhibit K or as may be approved by the COMPANY pursuant to sub-article 25.2.

**KEY VESSEL** means a vessel or component of the MARINE SPREAD identified as such in Exhibit K or as may be subsequently approved as such by the COMPANY pursuant to sub-article 26.4

**MARINE SPREAD** means the whole or part of the marine portion of the T&I CONTRACTOR's CONSTRUCTION EQUIPMENT (including, as applicable, derrick lay barge, heavy lift vessel and/or pipe lay vessel, dive support vessels barges, tugs, crew boats, supply vessels, accommodation barges, as-built survey vessel, and any other vessels) and all appurtenances thereof, together with their captains and full crews and PERSONNEL, utilized by the T&I CONTRACTOR for the performance of the T&I WORK. MARINE SPREAD does not include vessels, boats, barges and tugs owned or chartered by the COMPANY.

**NOTICE TO PROCEED** means a notice issued to the T&I CONTRACTOR by the COMPANY, generally as per the form of NOTICE TO PROCEED in ANNEX 10 hereto, wherein the COMPANY shall identify the nature and extent of the T&I WORK to be performed by T&I CONTRACTOR within a particular PHASE and the applicable COMPLETION DATES.

**OPTION** means an optional item (if any) listed and described as such in Exhibit B. The price and schedule conditions for each OPTION is as stated in Exhibit B. The term Optional Item shall be construed accordingly.

**PARTIES** mean the COMPANY and the T&I CONTRACTOR.

**PARTY** means the COMPANY or the T&I CONTRACTOR.

**PERSONNEL** means officers, directors, agents, employees, consultants, servants, representatives, licensees and invitees.

**PETROLEUM ACT** means Petroleum Act B.E.2514 and all amendments thereto.

**PHASE** means one or more PLATFORMS and associated T&I WORK or FSO WORK identified as such in a NOTICE TO PROCEED.

**PLANT** means permanent facilities as per CONTRACT requirements constructed and/or installed at a SITE. The term PLANT component means a portion of PLANT to be constructed and installed at the SITE. The term PLANT component(s) and related items shall be construed accordingly.

**PLATFORM** means a specific part of the PLANT comprising a wellhead platform (including Topsides, Jacket, and Appurtenances), associated pipelines, tie-ins and brownfield modifications and any other associated T&I WORK.

**PROJECT** means the all of PLATFORMS, parts thereof including PLANT components, and FSO WORK instructed by the COMPANY by means of NOTICES TO PROCEED issued pursuant to this CONTRACT as may be modified by CHANGE ORDER.

**PROVISIONAL ACCEPTANCE CERTIFICATE** means the certificate issued by the COMPANY to the T&I CONTRACTOR pursuant to sub-article 19.2. The term PROVISIONAL ACCEPTANCE shall be construed accordingly.

**RELY UPON INFORMATION** means the information listed and described as RELY UPON INFORMATION in Exhibit E Annex-8.

**RESULT OF THE WORK** means at a given date during the performance of the T&I WORK, the results of the T&I WORK performed from the EFFECTIVE DATE to such a date, of any or all of the following:

- a) CONTRACTOR DOCUMENTS,
- b) CONTRACTOR ITEMS (at any stage of completeness),
- c) Major PLANT components and related items handed over from the EPC CONTRACTOR to the T&I CONTRACTOR, COMPANY ITEMS (if any) delivered to the CONTRACTOR, and/or
- d) any other T&I WORK performed,

The term RESULTS OF THE T&I WORK shall be construed accordingly.

**SITE** means an offshore location where the PLANT and PLATFORM are to be constructed and/or installed and/or located and the vicinity thereof.

**SPECIAL RISKS** have the meaning given in sub-article 39.1.

**SPECIFICATION** means any and all Project Particular Specifications and/or COMPANY Specifications (as per Exhibit E) and all documents referenced therein, irrespective of if attached or not.

**SUBCONTRACTOR** means any person to whom the T&I CONTRACTOR has subcontracted the performance of any part of the T&I WORK and shall include subcontractors of any participating in the performance of T&I WORK. The term SUBCONTRACTOR includes owners of MARINE SPREAD but does not include VENDORS. The terms SUBCONTRACTOR and SUBCONTRACT shall be construed accordingly.

**SUPPLIER** means supplier(s) of any COMPANY ITEM.

**TROPICAL CYCLONE** shall mean as follows:

- a) For SITES located in any of Exploration Blocks 14A, 15A 16A, G8/50 and G2/61 TROPICAL CYCLONE shall have the meaning given to Tropical Cyclone in the Tropical Cyclone Plan for Gulf of Thailand document reference 10011-PDR-SSHE-501/07-R16 and applicable General Marine Instructions.
- b) For SITES in Exploration Block G1/61 TROPICAL CYCLONE until and including 24:00 hours on 24<sup>th</sup> April 2022 shall have the meaning given to Tropical Cyclone in the EXISTING G1/61 OPERATOR's applicable Tropical Cyclone Plan and applicable General Marine Instructions. Thereafter TROPICAL CYCLONE shall have the meaning given to TROPICAL CYCLONE in the replacement Tropical Cyclone Plan and General Marine Instructions to be issued by the COMPANY.

**VENDOR** means a supplier of CONTRACTOR ITEM to the T&I CONTRACTOR and/or SUBCONTRACTOR. For clarity, the term VENDOR shall include vendors of any tier engaged in the manufacturing and/or supply of CONTRACTOR ITEMS.

**WARRANTY PERIOD** means the period(s) referred to in sub-article 20.4.

**WORK** means all required and/or necessary work, services and other things to be provided, performed and/or arranged by the T&I CONTRACTOR, SUBCONTRACTOR, and VENDOR, as well as all other obligations and requirements imposed on the T&I CONTRACTOR, SUBCONTRACTOR, and VENDOR under this CONTRACT and otherwise, as may be modified by CHANGE ORDER(S). The term T&I WORK shall be construed accordingly. The term FSO WORK shall mean, in full or in part, the WORK to be performed by the T&I CONTRACTOR for and in connection with the new FSO Pipeline, PLEM and Tie-ins (between PLEM and FSO Pipeline) and FSO Flexible Pipe and Tie-ins at Central Processing Platform.

**WORKSHOP** means any location(s), other than a WORKSITE, including offices, premises and workshops where T&I CONTRACTOR ITEMS shall be engineered, manufactured, assembled, and/or tested. The term WORKSHOP also includes offices, premises and workshops of SUBCONTRACTOR unless they are associated with the fabrication of any major components of the PLANT. The term T&I WORKSHOP shall be construed accordingly.

**WORKSITE** means the SITE and/or the onshore construction location(s) where any major components of the PLANT (such as Topsides, Jackets and Appurtenances) shall be fabricated and assembled by the T&I CONTRACTOR and/or SUBCONTRACTOR.

The term WORKSITE shall also include the locations where linepipe is stored and coated. The term WORKSITE does not include WORKSHOP and does not include other WORK Locations. The term T&I WORKSITE shall be construed accordingly.

**WORK TIME SCHEDULE** means the commencement date of each PHASE, required Key Dates and required COMPLETION DATES as may have been modified by CHANGE ORDER. The term T&I WORK TIME SCHEDULE shall be construed accordingly.

The WORK TIME SCHEDULE for each PHASE shall be calculated in accordance with the EXHIBIT C requirements and shall be set out in the relevant NOTICE TO PROCEED.

The term T&I Detailed Work Time Schedule shall have the meaning ascribed to it in Exhibit C.

## 2.2 Interpretation

No rule of construction shall apply to the disadvantage of a PARTY because that PARTY was responsible for preparation of, or seeks to rely on, this CONTRACT or any part of it.

Unless the contrary intention appears, a reference in this CONTRACT to:

- a) The term document includes any variation, amendment or replacement of it and any annexure, schedule, attachment or exhibit attached to it and anything incorporated into it by reference, whether appended to it or not.

The term document shall include as the context may require; plans, procedures, technical query, statements, requisition, calculations, notes, data sheets, computer data, information, SPECIFICATIONS, drawings, plans, philosophies, bases of design, lists, sketches, procedures, any other document expressly referenced in this CONTRACT and anything else of a like and/or similar nature.

- b) An article or sub-article is a reference to an article or sub-article of the AGREEMENT.

- c) The word “person” includes an individual, a firm, a body corporate, a partnership, a joint venture, an unincorporated body or association, or any government and each of their successors and permitted assigns.
- d) Words in the singular include the plural and vice versa as the context demands.
- e) “days” or “months” shall mean “consecutive calendar days” or “consecutive calendar months.” It being understood that all dates and time periods referred to in the T&I CONTRACT DOCUMENTS relate to the Gregorian calendar.
- f) Unless otherwise agreed and subject sub-article 2.2 g) a “working day” shall mean any day that is not a Saturday, a Sunday or a public holiday notified as such by the COMPANY to the Stock Exchange of Thailand.
- g) The term “non-working” day(s) applicable to WORK Locations shall be agreed by the PARTIES and recorded as such in the PROJECT calendar.
- h) The terms “he”, “him” and “his” are used in relation to the CONTRACTOR, whereas the terms “it” and “its” are used in relation to the COMPANY.
- i) The words “require”, “request”, “submit”, “clarify”, “clarification”, “answer”, “notify”, “instruct”, “inform”, “agree”, “advise”, “approve” and the like unless otherwise is stated shall be deemed to be completed by the expression “in writing”.
- j) The words “include”, “including”, “included”, “for example”, “such as” and the like unless otherwise is stated are deemed to be completed by the expression “but not limited to”.
- k) Any particular law, statute, order, decree, rule or regulation of any government authority includes any consolidation, re-enactment, amendment or replacement of it for the time being in force.
- l) In this CONTRACT, headings are for convenience only and do not affect interpretation.

### **Article 3** **Entire Agreement**

#### **3.1** **Entire Agreement**

Subject to sub-articles 3.2 and 3.3, this CONTRACT embodies the entire agreement between the COMPANY and the EPC CONTRACTOR with respect to the EPC WORK, the PLANT components and related items and all matters in connection with and arising from this CONTRACT, and nullifies and supersedes all and any related oral and written understandings, agreements and qualifications made between the PARTIES prior to the EFFECTIVE DATE unless included within this CONTRACT. Without prejudice to any liability for fraudulent misrepresentation or fraudulent misstatement, neither PARTY has relied on any representation, warranty, assurance, covenant, indemnity, undertaking or commitment which is not expressly set out in this CONTRACT.

For clarity, any T&I WORK performed subject to and pursuant to Letter of Intent to Award issued by the COMPANY to the T&I CONTRACTOR *[date and reference to be inserted]* shall be deemed part of the T&I WORK and subject to all the terms, conditions and requirements of this CONTRACT.



### 3.2 Obligations Imposed by APPLICABLE LAWS

If APPLICABLE LAWS place obligations on the T&I CONTRACTOR, VENDOR, SUBCONTRACTOR and/or SUPPLIER in respect of this CONTRACT, the CONTRACT requirements, the performance of the T&I WORK, the relevant T&I WORK and/or the PLANT, the T&I CONTRACTOR, VENDOR, SUBCONTRACTOR and/or SUPPLIER will remain subject to such obligations provided however the terms and requirements of this CONTRACT as far as is legally permissible shall always take precedence over any APPLICABLE LAWS with which it conflicts or which are expressly excluded in this CONTRACT. Similarly, all communications between the PARTIES arising from and in connection with this CONTRACT and the T&I WORK and/or the relevant T&I WORK since the issue of the Letter of Intent to Award shall be deemed to have taken place under this CONTRACT.

### 3.3 Agreements and Guarantees

Agreements and/or guarantees (such as; design endorsement certificate(s), performance bank guarantee, parent company guarantee, and/or guarantees, warranties, patents and license grants, arrangements for financing and insurance coverage, indemnity and waiver of recourse agreements etc.) made with the COMPANY by and on behalf of the T&I CONTRACTOR or any SUBCONTRACTOR or any VENDOR or third party before the EFFECTIVE DATE shall remain in full force and effect.

However, the existence of such an agreement and/or guarantee, as aforesaid, shall not limit or restrict the obligations of the T&I CONTRACTOR, SUBCONTRACTOR and/or a VENDOR to provide any agreement and/or guarantee and/or warranty that is required to be submitted after the EFFECTIVE DATE as per the terms and requirements of this CONTRACT.

### 3.4 Invalidity and Severability

If any provision (or part thereof) of this CONTRACT, is or becomes unlawful, void, or unenforceable, the legality, validity or enforceability of any other part of that provision or any other provision shall not be affected but shall continue in full force and effect.

## **Article 4 Waiver and Amendments to the CONTRACT**

### 4.1 Waiver

Except for waivers expressly stated elsewhere in this AGREEMENT:

- m) a right created under this CONTRACT or at law may only be waived in writing, signed by the PARTY giving the waiver, and
- n) a PARTY's failure to enforce, or delay in enforcing, any of its/his rights under this CONTRACT shall not constitute a waiver of such rights unless stated otherwise in this CONTRACT;
- o) a waiver of a right on one or more occasions shall not operate as a waiver of that right on other occasions; and
- p) an exercise of a right shall not prevent any further exercise of that right or of any other right.

Notwithstanding the 3<sup>rd</sup> paragraph of Section 381 of the Thai Civil and Commercial Code, the T&I CONTRACTOR hereby agrees that any failure by the COMPANY to reserve its rights to apply liquidated damages under this CONTRACT on any stage of acceptance of

T&I WORK, the acceptance of any of the major PLANT components from the T&I CONTRACTOR, and or by reason of payments made to the T&I CONTRACTOR under the terms of this CONTRACT shall not affect the COMPANY's right to CLAIM such liquidated damages at a later date.

Notwithstanding the foregoing and for clarity the exercise by the COMPANY of its right to reject a CLAIM as per the terms of this CONTRACT shall not be considered as waiver of the T&I CONTRACTOR's rights obligations and/or liabilities under this CONTRACT but shall be considered as the exercise of a COMPANY right under this CONTRACT.

4.2 Amendments to the CONTRACT

No amendment of this CONTRACT shall be valid unless made in writing and executed by the authorized representatives of the PARTIES. For clarity a modification to this CONTRACT made pursuant to article 22 (CHANGE ORDERS) shall not be considered as an amendment of this CONTRACT.

**Article 5** **Language of the CONTRACT**

5.1 English Language

This CONTRACT has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this CONTRACT.

Unless otherwise specified or necessary, all matters arising from and/or in connection with this CONTRACT (including CONTRACTOR DOCUMENTS) and all communications between the PARTIES shall be conducted in English as being the language of the CONTRACT.

5.2 Translation

Official documents and/or certificates in a language other than English must be accompanied by an English translation prepared by an approved translator. The proposed appointment of translators shall be subject to approval by the COMPANY.

**Article 6** **Interpretation of the CONTRACT**

6.1 Intention of the CONTRACT as a Whole

The misplacement, addition or omission of a word or character shall not change the intent of any part of this CONTRACT from that set forth in this CONTRACT as a whole.

The T&I CONTRACTOR shall be solely responsible for requesting any interpretation or clarification in such respect from the COMPANY and shall bear any costs and expenses arising from his failure to do so.

Any and all CONFLICTS in and/or between the T&I CONTRACT DOCUMENTS, shall not relieve the T&I CONTRACTOR from performing and completing all required and/or necessary T&I WORK and other requirements in accordance with the terms and requirements of this CONTRACT.

6.2 Headings

Refer to sub-article 2.2 hereabove.

### 6.3 Order of Priority of the T&I CONTRACT DOCUMENTS

For the purposes of interpretation, should there be any CONFLICT in or between any of the T&I CONTRACT DOCUMENTS, and unless expressly provided otherwise, priority shall be given in the order of precedence in which T&I CONTRACT DOCUMENTS appear, i.e. the articles of the AGREEMENT shall take precedence over the rest of this CONTRACT, followed by the ANNEXES and then the EXHIBITS in the order they appear except for Exhibit F which shall have the lowest priority.

In case of any CONFLICT in an Exhibit or between documents listed in or forming an Exhibit, the most stringent requirement shall apply.

For clarity, Exhibit F may set out certain minimum requirements to be complied with by the T&I CONTRACTOR but shall not limit nor restrict the T&I CONTRACTOR's obligations to design, perform and complete the T&I WORK in accordance with this CONTRACT, and to provide everything necessary for the performance of the T&I WORK including the provision of additional and/or enhanced CONSTRUCTION EQUIPMENT, CONTRACTOR ITEMS, additional CONTRACTOR's PERSONNEL and anything else that may be necessary.

Subject to the foregoing, the T&I CONTRACT DOCUMENTS are intended to be correlative and mutually explanatory and any works and/or services required in one document and not mentioned in another shall be part of the T&I WORK at no additional cost or expense for the COMPANY regardless of the order of priority of the respective T&I CONTRACT DOCUMENTS.

### 6.4 Clarification of CONFLICTS

During the performance of the T&I WORK, should any CONFLICT becomes apparent in or between or among the T&I CONTRACT DOCUMENTS, the T&I CONTRACTOR shall immediately notify the COMPANY of same and shall obtain COMPANY's clarification prior to commencing any related part of the T&I WORK, it being understood that performance of any such T&I WORK prior to clarification shall be at T&I CONTRACTOR's own risk and cost.

The COMPANY shall give its clarification within fourteen (14) days of receipt of T&I CONTRACTOR's request for clarification unless the T&I CONTRACTOR has qualified the matter as urgent and important in which case the COMPANY shall give the main elements of its clarification within seven (7) days.

The T&I CONTRACTOR may appeal COMPANY's clarification within five (5) days of receipt thereof or, if the matter is qualified in writing as important and urgent, within three (3) days of receipt thereof, failing which such clarification shall be deemed final and binding.

The T&I CONTRACTOR shall proceed with the performance of the T&I WORK in accordance with COMPANY's clarification

If at any time, the COMPANY discovers a discrepancy as aforesaid, it shall so notify the T&I CONTRACTOR and give its clarification within the periods of time set out above.

**Article 7**    **Status of the PARTIES**

7.1            Status of COMPANY

The COMPANY enters into this CONTRACT for itself and as agent for and on behalf of the CO-VENTURERS.

Subject to the following provisions of this sub-article 7.1 each CO-VENTURER shall be liable to the T&I CONTRACTOR, severally and only to the extent of its interest, respectively in, the Arthit Consortium, the G8/50 Consortium and the G1/61 Consortium.

Notwithstanding the foregoing:

- a) subject to the provisions of this sub-article 7.1 and without prejudice to the principle of several liabilities amongst the CO-VENTURERS, PTTEPI and PTTEP ED have appointed PTTEP as their sole agent and representative in all matters arising in connection with its obligations as the COMPANY. Said agent shall be the single point of contact with CONTRACTOR;
- b) the T&I CONTRACTOR agrees to look only to PTTEP for the due performance of this CONTRACT and/or the T&I WORK, insofar as it is related to the ARTHIT Concession and nothing contained in this CONTRACT shall impose any liability on, or entitle the T&I CONTRACTOR to commence any proceedings against any CO-VENTURERS in the ARTHIT Concession;
- c) the T&I CONTRACTOR agrees to look only to PTTEPI for the due performance of this CONTRACT and/or the T&I WORK, insofar as it is related to Block G8/50 and nothing contained in the CONTRACT shall impose any liability on, or entitle the T&I CONTRACTOR to commence any proceedings against any CO-VENTURERS in the Block G8/50;
- d) the T&I CONTRACTOR agrees to look only to PTTEP ED for the due performance of this CONTRACT and/or the T&I WORK, insofar as it is related to the G1/61 PSC and nothing contained in the CONTRACT shall impose any liability on, or entitle the CONTRACTOR to commence any proceedings against any CO-VENTURERS in the G1/61 PSC;
- e) the T&I CONTRACTOR agrees not to look to PTTEP for the due performance of this CONTRACT and/or the T&I WORK insofar as it is related to the G8/50 Concession and/or the G2/61 PSC.
- f) the T&I CONTRACTOR agrees not to look to PTTEPI for the due performance of this CONTRACT and/or the T&I WORK insofar as it is related to the ARTHIT Concession and/or the G1/61 PSC and/or G2/61 PSC.
- g) the T&I CONTRACTOR agrees not to look to PTTEP ED for the due performance of the CONTRACT and/or or the T&I WORK insofar as it is related to the ARTHIT Concession and/or Block G8/50.
- h) the T&I CONTRACTOR agrees to look only to the COMPANY for the due performance of this CONTRACT and nothing contained in this CONTRACT shall impose any liability on, or entitle the T&I CONTRACTOR to commence any proceedings against, any CO-VENTURERS other than the COMPANY;
- i) the COMPANY is entitled to enforce this CONTRACT on behalf of all CO-VENTURERS as well as for itself. For that purpose, the COMPANY shall commence

proceedings in its own name to enforce all obligations and liabilities of the T&I CONTRACTOR and to make any CLAIM any CO-VENTURER may have against the T&I CONTRACTOR; and

- j) all CLAIMS recoverable by the COMPANY pursuant to this CONTRACT or otherwise shall include the CLAIMS of CO-VENTURERS except that such CLAIMS shall be subject to the same limitations or exclusions of liability applicable to the COMPANY or the T&I CONTRACTOR under this CONTRACT.

Notwithstanding the foregoing generality, in the event of any dispute initiated by the T&I CONTRACTOR against the COMPANY and/or CO-VENTURER, each CO-VENTURER shall only be liable to the T&I CONTRACTOR, severally, up to a maximum amount being same percentage of such CLAIM as the percentage of the CO-VENTURERS participating interest in the respective consortium.

## 7.2 Status of the T&I CONTRACTOR (Independent Contractor).

- 7.2.1 The T&I CONTRACTOR is an independent contractor with respect to the CONTRACT and shall exercise independent management, implement, control and supervision in the performance of the T&I WORK subject to and as per the terms of the CONTRACT.
- 7.2.2 The T&I CONTRACTOR is not the COMPANY's agent or partner. The T&I CONTRACTOR shall be responsible for all costs and expenses resulting from his independent status including salaries, bonuses, insurances, taxes and social welfare contributions of any kind related to the T&I CONTRACTOR's PERSONNEL.
- 7.2.3 The T&I CONTRACTOR shall perform all obligations and duties under the CONTRACT at his own cost, risk and responsibility, in due compliance with the WORK TIME SCHEDULE and with the provisions of the CONTRACT.
- 7.2.4 The COMPANY shall not direct the execution of the T&I WORK, except as provided for under provisions of the CONTRACT covering defective performance by the T&I CONTRACTOR and/or take-over by the COMPANY.
- 7.2.5 Nothing in the CONTRACT implies, directly or indirectly, that any of the T&I CONTRACTOR's PERSONNEL are agents, servants or employees of the COMPANY. All of the T&I CONTRACTOR's responsibilities under the CONTRACT, including those concerning the T&I CONTRACTOR's PERSONNEL, shall be undertaken in the name of the T&I CONTRACTOR and not in the name of the COMPANY.
- 7.2.6 The T&I CONTRACTOR's failure to perform any obligations shall always be at his sole cost and risk.
- 7.2.7 Omissions or actions of the COMPANY and/or inspecting authorities or certifying agencies, including any comments or absence thereof, presence or absence of representatives at any time including during tests and inspections, issuance of certificates other than FINAL ACCEPTANCE CERTIFICATE (subject to surviving obligations), payments, approval and the like, shall not release the T&I CONTRACTOR in any way from any of his obligations and liabilities under the CONTRACT or at law, nor imply acceptance of defective T&I WORK.

7.2.8 The T&I CONTRACTOR shall not represent the COMPANY or act for or on behalf of the COMPANY or in its name without the prior approval from the COMPANY and then only as and when mutually agreed by the PARTIES. Relations with third parties shall be subject to procedures previously agreed to by the COMPANY. No PERSONNEL of the T&I CONTRACTOR shall be deemed in any way to be PERSONNEL of the COMPANY.

**Article 8**    **COMPANY REPRESENTATIVE**

8.1    Appointment

The COMPANY REPRESENTATIVE is the person named as such in article 55 of or if none is stated in article 55, the COMPANY shall appoint the COMPANY REPRESENTATIVE who, subject to sub-article 8.2 below shall be the only COMPANY authorized delegate for the purpose of this CONTRACT.

The COMPANY shall be entitled to replace the COMPANY REPRESENTATIVE at any time, in such event the COMPANY shall inform the T&I CONTRACTOR in writing.

8.2    Delegation

The COMPANY REPRESENTATIVE shall have the right to delegate specific tasks to one or more persons designated by him and belonging either to the COMPANY or to other entities including certifying and inspecting agencies. In such case, the COMPANY REPRESENTATIVE shall inform the T&I CONTRACTOR in writing of the names of such persons and the scope of their delegation. At all times during the performance of the T&I WORK, the COMPANY REPRESENTATIVE shall have the right to cancel in writing any such delegation.

8.3    COMPANY Instructions

The COMPANY REPRESENTATIVE and duly authorized delegate(s), in accordance with the terms of such delegation, shall have the right to instruct the T&I CONTRACTOR with regard to the performance of the T&I WORK, any other matters specifically provided for in this CONTRACT, and any matter arising from and/or in connection with this CONTRACT. Such instructions shall be made in writing and the T&I CONTRACTOR shall immediately comply with the same.

However, if the T&I CONTRACTOR should receive a verbal instruction from the COMPANY REPRESENTATIVE or duly authorized delegate(s) he shall immediately confirm the same in writing to the COMPANY REPRESENTATIVE and request confirmation.

Any such instructions not confirmed in writing within forty-eight (48) hours by the COMPANY REPRESENTATIVE or duly authorized delegate(s) in accordance with the terms of such delegation, shall be null and void.

8.4    Work Instructions

Notwithstanding sub-article 8.3, the COMPANY shall have the right at anytime to issue a Work Instruction to document an instruction from the COMPANY to the T&I CONTRACTOR which shall generally be in the format as per Exhibit G Annex-4 Attachment-2.

The T&I CONTRACTOR shall immediately comply with each Work Instruction as and when received, irrespective if the subject matter is a modification as per sub-article 22 or not and irrespective of if CONTRACTOR is entitled to a CHANGE ORDER or not.

Compliance by T&I CONTRACTOR with a Work Instruction shall not prejudice the rights of either PARTY to a CHANGE ORDER. Communication between COMPANY and CONTRACTOR with respect to a CHANGE ORDER shall be as per articles 15 and 22 and the other terms and requirements of the CONTRACT.

All requests for CHANGE ORDER pertaining to Work Instructions shall be notified, prepared and submitted in accordance with sub-articles 22.2.4, 22.3 and the other terms and requirements of this CONTRACT.

**Article 9 T&I CONTRACTOR's Organization**

**9.1 T&I CONTRACTOR's Organization**

In order to ensure the proper and timely performance of the T&I WORK in accordance with the terms and requirements of this CONTRACT, the T&I CONTRACTOR shall from the commencement of the applicable T&I WORK to its completion, and for each T&I WORK phase (project management, engineering, procurement services, supply, onshore construction, and commissioning (to the extent stipulated in the CONTRACT) transportation, and the rectification of defects and deficiencies) provide and maintain fully resourced functional organizations and shall provide corresponding resources, PERSONNEL, CONSTRUCTION EQUIPMENT and all other things required and/or necessary, to fulfil all of the T&I CONTRACTOR's obligations under this CONTRACT.

**9.2 Association of Companies (Whenever applicable)**

If the T&I CONTRACTOR is an association of companies or other form of juristic persons, all such companies and juristic persons shall be a PARTY to and shall sign this CONTRACT and shall be jointly liable under this CONTRACT; however without prejudice to the principle of joint liability, the T&I CONTRACTOR hereby irrevocably nominates for the duration of this CONTRACT ..... as his sole agent with full power to represent the T&I CONTRACTOR for all matters, to act on his behalf, receive all payments and to settle any CLAIMS. Said agent shall be the single point of contact with the COMPANY and shall prepare and present all of the T&I CONTRACTOR's invoices in accordance with the requirements of this CONTRACT.

**9.3 T&I CONTRACTOR REPRESENTATIVE**

9.3.1 The T&I CONTRACTOR shall appoint and keep assigned to the T&I WORK during the entire course of the T&I WORK, an experienced T&I CONTRACTOR REPRESENTATIVE acceptable to the COMPANY who shall be fully knowledgeable in all aspects of this CONTRACT and the T&I WORK and have full charge of all operations of the T&I CONTRACTOR in respect of the T&I WORK and full authority to represent the T&I CONTRACTOR in all matters related to the performance of this CONTRACT. It being understood that notwithstanding the other terms of this CONTRACT the T&I CONTRACTOR REPRESENTATIVE has the full authority to agree and sign CHANGE ORDERS on behalf of the T&I CONTRACTOR.

9.3.2 Such authority shall include the power to agree on behalf of the T&I CONTRACTOR to any CHANGE ORDER. Any communications or notice given

to the T&I CONTRACTOR REPRESENTATIVE by the COMPANY shall be considered as given to the T&I CONTRACTOR.

9.3.3 The T&I CONTRACTOR REPRESENTATIVE shall not be changed during the execution of the T&I WORK unless the COMPANY approves such change in writing. Such approval shall not be unreasonably withheld.

9.3.4 The T&I CONTRACTOR shall also appoint an experienced deputy T&I CONTRACTOR REPRESENTATIVE at each WORKSITE who shall be fully authorized to act as T&I CONTRACTOR REPRESENTATIVE when the T&I CONTRACTOR REPRESENTATIVE is unavailable or absent. The appointment and any change of the deputy T&I CONTRACTOR REPRESENTATIVE shall be subject to the prior written approval by the COMPANY.

## **Article 10 Assignment and/or Novation**

### **10.1 Assignment or Novation of the CONTRACT by the COMPANY**

The COMPANY shall have the right at its sole discretion and by simple notice of assignment or novation as follows:

- a) to freely assign, novate, charge, transfer or declare any trust over this CONTRACT or any part thereof or any right, benefit or interest arising hereunder to any AFFILIATE of the COMPANY or CO-VENTURERS or PTT Public Company Limited, without the prior written consent of the T&I CONTRACTOR, or
- b) to assign or novate this CONTRACT to any future CO-VENTURER or CO-VENTURER's AFFILIATES or any third party. Such right shall be subject to the prior written consent of the T&I CONTRACTOR provided such consent shall not be unreasonably withheld or delayed.

Assignment or novation of this CONTRACT by the COMPANY or charge, transfer or declaration of any trust as aforesaid shall not relieve the T&I CONTRACTOR of any of his obligations or liabilities under this CONTRACT and otherwise.

The T&I CONTRACTOR hereby agrees to continue to perform all his duties and obligations under this CONTRACT notwithstanding any assignment or novation of this CONTRACT by the COMPANY or charge, transfer or declaration of any trust.

In the event of assignment or novation as aforesaid the T&I CONTRACTOR shall cause all Parent Company and Bank Guarantees related to the assigned or novated CONTRACT to be reissued for the benefit of the assignee or the novatee instead of the COMPANY, and such guarantees shall be exchanged against those already in force.

### **10.2 Assignment or Novation of the CONTRACT by the T&I CONTRACTOR**

The T&I CONTRACTOR shall not assign and shall not novate this CONTRACT, nor transfer any part of it, nor any benefit, interest, right or obligation therein nor payment due hereunder without prior written approval from the COMPANY.

## **Article 11 SUBCONTRACTORS and VENDORS**

### **11.1 General Obligations**

The T&I CONTRACTOR shall be solely responsible and liable to the COMPANY for the expeditious and correct performance of T&I WORK by SUBCONTRACTORS and



VENDOR which shall be performed in accordance with the terms and requirements of this CONTRACT and the applicable SUBCONTRACT / Purchase Order.

The T&I CONTRACTOR shall be responsible to the COMPANY for any and all acts, omissions, errors, deficiencies, defaults and/or neglects of his SUBCONTRACTORS and/or VENDORS and/or their respective PERSONNEL as if they were acts, omissions, errors, deficiencies, defaults and neglects of the CONTRACTOR and/or his PERSONNEL.

The obtaining of warranties and/or guarantees from SUBCONTRACTORS and VENDORS and/or the T&I CONTRACTOR's failure to obtain such warranties and guarantees shall not relieve the T&I CONTRACTOR of any of his obligations and liabilities under this CONTRACT.

## 11.2 Selection and Approval of SUBCONTRACTORS and VENDORS

### 11.2.1 Selection

The selection of potential SUBCONTRACTORS and VENDORS, tendering, evaluation and award of SUBCONTRACTS and the tendering, evaluation and award of Purchase Orders for CONTRACTOR ITEMS, shall be done in accordance with this article 11, Exhibit G Annex-2 (Procurement and Material Control), Exhibit J (List of SUBCONTRACTORS and VENDORS), applicable Exhibit K requirements and the other terms and requirements of this CONTRACT.

Where required by the terms of this CONTRACT the T&I CONTRACTOR shall ensure that SUBCONTRACTORS and/or VENDORS are pre-qualified as per the requirements stated in Exhibit G Annex-2.

The T&I CONTRACTOR shall not subcontract the whole of the T&I WORK.

### 11.2.2 Approval

The T&I CONTRACTOR shall not award any SUBCONTRACT and/or Purchase Order for CONTRACTOR ITEMS, without first obtaining approval from the COMPANY to award such SUBCONTRACT or Purchase Order.

The COMPANY shall have the right to refuse to approve, without justifying such refusal, any proposed SUBCONTRACTOR and/or proposed VENDOR:

- a) who is not listed in Exhibit J,
- b) for whom the proposed SUBCONTRACT or Purchase Order does not comply with the requirements of this CONTRACT,
- c) in respect of which the CONTRACTOR has not complied with the requirements of sub-article 11.2.1,
- d) for whom the respective SUBCONTRACT or Purchase Order does not comply with the requirements of sub-article 11.3 and the required pass down requirements,
- e) who does not comply with the pre-qualification requirements stipulated in this CONTRACT.

Approval by the COMPANY of any SUBCONTRACTOR and/or approval of a VENDOR shall not create any contractual relationship of any kind whatsoever between the COMPANY and the SUBCONTRACTOR and/or VENDOR, nor

shall any such approval relieve the T&I CONTRACTOR of any of his obligations, responsibilities and liabilities under this CONTRACT or otherwise.

11.3 Pass Down Requirements

11.3.1 Generally

The T&I CONTRACTOR shall use his best endeavors to ensure that all SUBCONTRACTS and Purchase Orders for CONTRACTOR ITEMS are placed under conditions compatible with all relevant conditions of this CONTRACT including those listed in Exhibit G Annex-2 (Procurement and Material Control).

11.3.2 MIWRA and Liability and Insurance Agreements

The T&I CONTRACTOR shall obtain from each potential SUBCONTRACTOR and from VENDORS who will be involved in WORKSITE:

- a) a signed "Mutual Indemnity and Waiver of Recourse Agreement" as per ANNEX-2/B, and
- b) a signed "Liability and Insurance Agreement from SUBCONTRACTOR" as per ANNEX-3,

and issue copy to the COMPANY with the request for approval of the proposed SUBCONTRACTOR / VENDOR.

11.3.3 Economic Sanctions and Trade Embargoes

The T&I CONTRACTOR shall ensure that the T&I CONTRACTOR and all potential SUBCONTRACTORS and/or VENDORS shall not be the target of, or owned or subject to control by, any country or person that is subject to economic sanctions or trade embargoes imposed by the U.S. government; debarred or excluded or declared ineligible to participate in U.S. government contracts, or contracts, grants, or other programs financed in whole or part by the U.S. government; or listed by the U.S. Departments of Commerce or State as an entity which U.S. Persons may not engage in export or re-export related transactions.

11.3.4 Pass Down Plan for SUBCONTRACTORS and VENDORS

The T&I CONTRACTOR shall submit a Pass Down Plan for APPROVAL to the COMPANY no later than thirty (30) days after the EFFECTIVE DATE.

11.4 Performance of the T&I WORK by SUBCONTRACTORS and/or VENDORS

The T&I CONTRACTOR shall manage, monitor, control, supervise, inspect and expedite the performance of the T&I WORK by each SUBCONTRACTOR and VENDOR and shall ensure that any and all T&I WORK performed by such SUBCONTRACTOR and/or VENDOR is performed/or and supplied in full compliance with the requirement of this CONTRACT and the applicable SUBCONTRACT and/or Purchase Order.

11.5 Default on the Part of SUBCONTRACTOR and/or VENDORS

The T&I CONTRACTOR shall at his own risk, cost, and expense immediately initiate actions to remedy any and all omissions, errors, non-conformities, defects, deficiencies, defaults, delays etc., ("non-conformances") in T&I WORK performed by each SUBCONTRACTOR and each VENDOR as the case may be, for which the CONTRACTOR is not entitled to an Extension of Time pursuant to article 15.

Remedial actions shall include immediate rectification/mitigation of the non-conformances including all required and/or necessary repair, replacement, re-doing of the affected T&I WORK and acceleration actions including increasing the working hours and/or the number of PERSONNEL, additional, CONSTRUCTION EQUIPMENT and the utilization of additional resources, and/or facilities.

Without restriction and/or limitation of the COMPANY's rights under article 48, the COMPANY shall also have the right to request the immediate removal of a SUBCONTRACTOR and/or VENDOR from further involvement in the PROJECT subject to providing seven (7) days prior notification to the T&I CONTRACTOR, specifying the reasons for such "request to remove."

Reasons for removal include any of those listed in sub-articles 48.1 and/or other default by the SUBCONTRACTOR and/or VENDOR under the terms and requirements of the applicable SUBCONTRACT or Purchase Order.

Upon receipt of such a "request to remove" the T&I CONTRACTOR shall at its own, risk, cost and expense immediately remove such SUBCONTRACTOR and/or VENDOR in accordance with the COMPANY's "request to remove" and shall replace the SUBCONTRACTOR/VENDOR with a substitute at no extra cost to the COMPANY and without extension of the COMPLETION DATES.

Each substitute SUBCONTRACTOR and substitute /VENDOR shall be subject to prior approval by the COMPANY.

#### 11.6 Costs, Expenses and Delays

Except as stated otherwise in this CONTRACT:

- a) the T&I CONTRACTOR is solely responsible towards the COMPANY for any and all consequences, delays and all direct and indirect costs and expenses arising from and/or in connection with SUBCONTRACTS and Purchase Orders for CONTRACTOR ITEMS.
- b) the T&I CONTRACTOR undertakes to make no CLAIMS against the COMPANY and/or COMPANY INDEMNIFIED PARTIES whatsoever, now and or in the future, or requests for CHANGE ORDER for adjustments to the CONTRACT PRICE and/or Extension of Time due to subcontracting unless expressly provided for in this CONTRACT.

The indemnity in this sub-article shall include for all consequences, delays and all direct and indirect costs and expenses arising from and/or in connection with the T&I CONTRACTOR's inability to propose any SUBCONTRACTOR and/or VENDOR acceptable to the COMPANY in accordance with the terms and requirements of this CONTRACT and/or removal and/or substitution of SUBCONTRACTORS and/or VENDORS in accordance with sub-article 11.5.

- c) Without restriction and/or limitation to articles 36 to 44, the T&I CONTRACTOR shall protect, save, indemnify, defend and hold harmless the COMPANY from all and any CLAIMS resulting from or otherwise connected with the T&I CONTRACTOR employing each SUBCONTRACTOR and each VENDOR and/or from third parties affected by the T&I WORK performed by the T&I CONTRACTOR, SUBCONTRACTOR and/or VENDOR as the case may be.

## **Article 12 Awareness of T&I WORK Conditions**

### **12.1 Acquaintance with T&I WORK Conditions**

Subject to sub-article 12.2, the T&I CONTRACTOR hereby declares and warrants, that prior to entering into this CONTRACT he has fully acquainted himself as to all local, regional, national and WORKSITE conditions and any other conditions of whatsoever nature which could affect the performance of the T&I WORK and/or his obligations under this CONTRACT, including:

- a) the nature and location of WORKSITES and WORK Locations including means of access and all conditions with regard thereto,
- b) as applicable, the atmospheric, meteorological, bathymetric, geotechnical, geophysical, topographic, marine, oceanographic, hydrological, geological, ocean floor, subsurface and soil conditions, seabed status and the like,
- c) CONSTRUCTION EQUIPMENT, PERSONNEL, CONTRACTOR ITEMS, COMPANY ITEMS (if any) and facilities, resources and all other things required and/or needed for the performance of the T&I WORK and the remedying of defects and or deficiencies,
- d) Local conditions and/or other conditions at WORKSITES that affect or may affect the performance of the T&I WORK and CONTRACT obligations,
- e) the availability of PERSONNEL and CONSTRUCTION EQUIPMENT, parts, consumables, procurement items, fuel, water, electric power and other utilities and the like,
- f) APPLICABLE LAWS, local customs, social practices and the like,
- g) EPC and T&I Interface obligations and requirements, and
- h) any and all other conditions of whatsoever nature that may affect the performance of the T&I WORK and the obligations of the T&I CONTRACTOR under this CONTRACT.

### **12.2 Responsibility of T&I CONTRACTOR with respect to T&I WORK Conditions**

12.2.1 Subject to the provisions of sub-article 12.2.2, the T&I CONTRACTOR hereby accepts all responsibilities for having properly evaluated all costs and contingencies for successfully performing the T&I WORK and satisfying all of obligations and requirements of this CONTRACT, including those related to EPC and T&I Interfaces and shall bear all and any consequences resulting from his improper evaluation.

The T&I CONTRACTOR undertakes to make no CLAIMS whatsoever and to make no requests for CHANGE ORDERS for relief, adjustments of the CONTRACT PRICE and/or Extension of Time based on his failure to sufficiently acquaint himself with the above mentioned conditions or on his reliance on COMPANY PROVIDED INFORMATION.

It being understood that the COMPANY shall have no responsibility or liability in respect of documents and any other information provided by the COMPANY and/or on its behalf except as is stated in sub-article 13.5 (Responsibility for

RELY UPON INFORMATION), sub-article 14.2 (Additional Documents) and sub-article 14.15 (EPC and T&I Interfaces).

12.2.2 Provided always that:

- a) if the existing COMPANY facilities at a SITE are different from those on which the Initial CONTRACT PRICE for a PLATFORM are established, and/or
- b) if at the time of Post-Engineering survey of an existing host Wellhead Platform specified in Exhibit A, the existing host Wellhead Platform is different from at the time of Pre-Engineering Survey specified in Exhibit A, and/or
- c) if the T&I CONTRACTOR should encounter ground conditions below the seabed at new Wellhead Platform locations which is different from the borehole logs and the test results of the soil samples from the bore holes provided in the COMPANY PROVIDED INFORMATION for such location,

and which an experienced contractor could not reasonably have been expected to foresee following an examination of the T&I CONTRACT DOCUMENTS and other documents existing at time of Tender (whether from COMPANY or elsewhere), and which substantially modifies the scope of the T&I WORK and/or the performance thereof, the T&I CONTRACTOR shall immediately notify the COMPANY and shall be entitled to request a CHANGE ORDER pursuant to article 22 for the consequences of such differences.

It being understood that thereafter, the T&I CONTRACTOR shall be deemed to have full knowledge of such SITE conditions referred to in sub-article 12.2.2 a), b) and/or c) and shall have no further entitlement to any CHANGE ORDER in respect of same.

**Article 13 Correctness and Sufficiency of T&I CONTRACT DOCUMENTS**

13.1 Acquaintance with T&I CONTRACT DOCUMENTS

The T&I CONTRACTOR hereby declares and warrants that, prior to entering into this CONTRACT, he has carefully reviewed and examined the AGREEMENT, ANNEXES, the EXHIBITS and any Annexes and Attachments thereto as well as all of the documents included and/or referenced therein, and has obtained a full understanding and knowledge of the, scope, nature, type, quality, quantity, purpose of the T&I WORK and all obligations under this CONTRACT and as can be inferred therefrom.

13.2 Correctness and Sufficiency of the T&I CONTRACT DOCUMENTS

Subject to the provisions of sub-article 13.5, the T&I CONTRACTOR hereby further declares and warrants that he is fully satisfied as to the adequacy, sufficiency, correctness and completeness of the AGREEMENT, the ANNEXES and the EXHIBITS and related documents and that they are in all respects fit and sufficient for their intended purpose and do not contain any CONFLICTS.

With the exception of any documents to be supplied by the COMPANY after the EFFECTIVE DATE in accordance with the provision of sub-article 14.2, the COMPANY shall have no obligation to provide the T&I CONTRACTOR with any other documents under this CONTRACT and the T&I CONTRACTOR furthermore declares that he needs

no other documents from the COMPANY in order to perform and complete the T&I WORK in full compliance with this CONTRACT.

For clarity, the T&I CONTRACTOR shall request, receive and utilize EPC and T&I Interface documents and information provided by the T&I CONTRACTOR, as per the requirements of sub-article 14.15, Exhibit A Annex-10 and the other terms and requirements of this CONTRACT.

13.3 Responsibility for T&I CONTRACT DOCUMENTS

Subject to the provisions of sub-article 13.5, the T&I CONTRACTOR hereby accepts all responsibilities for having properly evaluated all costs and contingencies for successfully performing and completing the T&I WORK and for fulfilling all his obligations under this CONTRACT and shall bear all and any consequences resulting from his improper evaluation.

In particular, the T&I CONTRACTOR declares that he has read, carefully reviewed and examined the DESIGN DOSSIER and all other documents and information with regard thereto and has fully verified the T&I CONTRACT DOCUMENTS including the DESIGN DOSSIER and accepts and takes full responsibility for such documents to the extent specified in this present article 13.

The T&I CONTRACTOR hereby undertakes to make no CLAIMS whatsoever or requests for CHANGE ORDERS, including for price adjustments and/or Extension of Time in respect of the T&I CONTRACT DOCUMENTS because of his failure to sufficiently acquaint himself with the T&I CONTRACT DOCUMENTS and by reason of the T&I CONTRACTOR's undertakings within this present article 13 and the Certificate of Endorsement of the DESIGN DOSSIER as per the ANNEX 5/A.

13.4 Responsibility for Endorsement of the DESIGN DOSSIER

The T&I CONTRACTOR warrants that prior to the EFFECTIVE DATE that he has fully reviewed, examined and verified all aspects of the contents of the DESIGN DOSSIER, and with the exception of the RELY UPON INFORMATION, the T&I CONTRACTOR has fully endorsed, without exception, the contents, adequacy sufficiency, cohesion, nature, type, quality, quantity, completeness and degree of detail of the DESIGN DOSSIER, and hereby acknowledges and agrees the DESIGN DOSSIER is fit for the purpose intended as per the terms and requirements of this CONTRACT.

To his effect, the T&I CONTRACTOR shall have signed and submitted a Certificate of Endorsement of the DESIGN DOSSIER to the COMPANY prior to the EFFECTIVE DATE in accordance with and in the form, which is attached as ANNEX-5/A hereto to acknowledge and confirm the T&I CONTRACTOR's endorsement of the DESIGN DOSSIER.

If the T&I CONTRACTOR does not submit the signed Certificate of Endorsement of the DESIGN DOSSIER to the COMPANY, as aforesaid, or if the T&I CONTRACTOR subsequently challenges the validity of the submitted Certificate of Endorsement of the DESIGN DOSSIER then such failure and/or challenge shall be disregarded and the T&I CONTRACTOR shall be deemed to have endorsed the DESIGN DOSSIER (RELY UPON INFORMATION excepted) in accordance with this present article 13 and as per ANNEX-5/A (Certificate of Endorsement of the DESIGN DOSSIER) hereto.

Accordingly, the T&I CONTRACTOR hereby waives all rights to recourse of whatsoever nature against the COMPANY arising from or in connection with and/or use by the T&I CONTRACTOR of the parts of the DESIGN DOSSIER endorsed by him.

Furthermore, the T&I CONTRACTOR warrants that he shall make no CLAIM with respect to the contents, adequacy sufficiency, cohesion, nature, type, quality, quantity, completeness and degree of detail of the parts of the DESIGN DOSSIER endorsed by him, nor for any CONFLICTS contained within the DESIGN DOSSIER and/or between the contents of the DESIGN DOSSIER.

#### 13.5 Responsibility for RELY UPON INFORMATION

Notwithstanding the other provisions of this article 13, the RELY UPON INFORMATION listed and described in Exhibit E Annex-8 shall not be endorsed by T&I CONTRACTOR.

However, the T&I CONTRACTOR shall remain responsible for:

- a) the verification, prior to the EFFECTIVE DATE, of the adequacy, sufficiency and coherence of all of the all of the contents of the DESIGN DOSSIER and documents and other information referenced therein with respect to the correct, proper and timely performance of the T&I WORK, and
- b) the interpretation of the documents and information contained in the DESIGN DOSSIER and for its correct, proper and timely utilization in the performance of the T&I WORK.

### **Article 14 Performance of the T&I WORK**

#### 14.1 General Requirements

The T&I CONTRACTOR shall perform and complete the T&I WORK in accordance with this CONTRACT and shall not deviate from the CONTRACT DOCUMENTS nor from APPROVED T&I CONTRACTOR DOCUMENTS nor from APPROVED T&I CONTRACTOR DOCUMENTS, without prior approval from the COMPANY.

##### 14.1.1 NOTICES TO PROCEED

The COMPANY shall instruct the T&I CONTRACTOR to perform the T&I WORK on a PHASE by PHASE basis by means of the issue of NOTICES TO PROCEED which shall generally be in the format of ANNEX-10.

Unless instructed by the COMPANY the T&I CONTRACTOR shall not commit to any expenditure for a PHASE prior to receipt of the relevant NOTICE TO PROCEED.

##### 14.1.2 Standards of Workmanship

The T&I CONTRACTOR shall carry out the T&I WORK in accordance with the terms and requirements of this CONTRACT, and shall exercise all reasonable skill, care, diligence and good judgement in the performance thereof and shall complete the T&I WORK in a professional manner in accordance with sound engineering practice and the highest standards of workmanship known for similar kinds of work in the oil and gas industry.

##### 14.1.3 Design Objectives

The PLANT shall be designed to fully ensure:

- a) the PLANT and where applicable the T&I WORK is designed in full conformity with the requirements of this CONTRACT,
- b) operational safety of the PLANT with respect to protection of PERSONNEL and property,
- c) the protection of the PLANT environment,
- d) the optimization of the conditions for the PLANT operability, efficiency and maintenance, and
- e) compliance with the PLANT performance warranties required by this CONTRACT.

#### 14.1.4 System of Units

Unless expressly otherwise specified in this CONTRACT or unless otherwise required or necessary the T&I CONTRACTOR shall use the metric system under the International System (SI) of Units but shall use inches for diameters of pipes and pipe accessories.

#### 14.1.5 Standards and Codes

Unless expressly otherwise specified, wherever reference is made in this CONTRACT to standards and codes in accordance with which the T&I WORK is to be performed, the edition or revision of the standards or codes current on the EFFECTIVE DATE shall apply. Unless otherwise mentioned, such reference is solely for implementation of the technical portions of such standards and codes.

### 14.2 Additional Documents

#### 14.2.1 Issuance of Additional Documents

At any time during the performance of the T&I WORK, the COMPANY shall have the right to issue to the T&I CONTRACTOR additional documents or revised documents to supplement or replace T&I CONTRACT DOCUMENTS.

#### 14.2.2 Checking Additional Documents

The T&I CONTRACTOR shall immediately check, at his own expense, all such additional or revised documents and shall use best endeavors to promptly and, in any case within a period not exceeding seven (7) days from receipt of such documents, or such other period as the COMPANY may agree on a specific case by case basis, notify the COMPANY of CONFLICTS therein or resulting therefrom.

In such event the T&I CONTRACTOR shall obtain the COMPANY's clarification as specified in sub-article 6.4 prior to carrying out any T&I WORK to which such documents relate.

Subject to the provisions of article 22, the T&I CONTRACTOR may be entitled to request a CHANGE ORDER, but any failure to notify the COMPANY within the above mentioned period shall debar the T&I CONTRACTOR from any additional rights under this CONTRACT even if such documents do contain CONFLICTS.

#### 14.2.3 COMPANY PROVIDED INFORMATION

Except as is stated in sub-article 12.2.2 c) and except for RELY UPON INFORMATION, the T&I CONTRACTOR is fully responsible for the



interpretation and use of all COMPANY PROVIDED INFORMATION and the T&I CONTRACTOR hereby accepts all responsibilities to properly evaluate and use such COMPANY PROVIDED INFORMATION and to bear any and all consequences resulting from his improper evaluation and/or use thereof.

#### 14.3 COMPANY ITEMS

##### 14.3.1 General

The COMPANY shall provide the T&I CONTRACTOR with the COMPANY ITEMS, if any, on the dates, at the places and in accordance with the conditions specified in the Exhibit I or, at the COMPANY's sole choice and decision, at subsequent later dates at which they are actually needed by the T&I CONTRACTOR for the performance of the T&I WORK.

##### 14.3.2 Inspection of COMPANY ITEMS

Upon delivery of any COMPANY ITEMS, the T&I CONTRACTOR shall immediately receive and perform a joint visual inspection with COMPANY nominated inspector in order to verify conformity with the requirements of this CONTRACT and to check upon the quantities and condition of items received. The T&I CONTRACTOR shall give the COMPANY adequate notice of such inspection.

##### 14.3.3 Recording of Receipt of COMPANY ITEMS

At the time of delivery and following inspection as per sub-article 14.3.2 above, the T&I CONTRACTOR shall immediately record and confirm receipt of COMPANY ITEMS and shall immediately notify the COMPANY of any shortfall in delivered quantities, as well as visually apparent defects or damages.

Failure of the T&I CONTRACTOR to notify the COMPANY at the time of receipt of shortfall in delivered quantities, apparent defects or damages, shall be deemed conclusive evidence that such COMPANY ITEMS were free from any such shortfall in delivered quantities, apparent defects and damages at delivery.

In such event, the T&I CONTRACTOR shall be responsible and liable for such COMPANY ITEMS as if the shortfall in delivered quantities, apparent defects or damages, were caused by T&I CONTRACTOR.

##### 14.3.4 Custody and Protection of COMPANY ITEMS

Upon delivery the T&I CONTRACTOR shall be responsible for and the liability for the care, custody and preservation of COMPANY ITEMS.

The T&I CONTRACTOR shall receive, inspect, transport, implement proper material identification, packaging, storage and control, store, use, preserve, maintain COMPANY ITEMS in accordance with the terms and requirements of this CONTRACT, best professional practices, SUPPLIER recommendations and requirements, including, use storage, protection against weather hazards, water, humidity, sand, fire, theft, vandalism and any other matter whatsoever.

The T&I CONTRACTOR shall be fully responsible and liable for the consequences of any failure to comply with the foregoing.

COMPANY ITEMS missing or damaged while in T&I CONTRACTOR's care and custody shall be promptly replaced or repaired either by the T&I CONTRACTOR or at COMPANY's sole decision by others, at the T&I CONTRACTOR's sole costs and expense unless and to the extent the cost of replacement of the missing COMPANY ITEMS are compensated under policies of insurance to be placed by the COMPANY as per article 43.

#### 14.3.5 Transportation of the COMPANY ITEMS

The COMPANY shall be responsible for the delivery of the COMPANY ITEMS as per the specified delivery conditions to the delivery point(s) designated in Exhibit I.

The T&I CONTRACTOR shall be responsible for taking delivery, selection of the means of conveyance, loading, protection, maintenance, preservation, the safe transportation to and for unloading of the COMPANY ITEMS at the applicable WORKSITE.

Taking delivery, means of conveyance, protection, preservation, safe transportation, unloading, care and custody shall, subject to the provisions of articles 36 - 44, shall be at the T&I CONTRACTOR's own risk, responsibility and liability.

#### 14.3.6 Installation of the COMPANY ITEMS

The T&I CONTRACTOR shall carry out all operations necessary to ensure the correct, proper and timely use and incorporation of the COMPANY ITEMS (if any) in the PLANT components, including the satisfactory checking of all interfaces with the equipment, materials and fabricated items supplied or made by the T&I CONTRACTOR, and any related engineering, materials supply, fabrication and/or construction activities.

The T&I CONTRACTOR shall immediately notify the COMPANY in the case any defects become apparent in the COMPANY ITEMS during the performance of the T&I WORK.

#### 14.3.7 Detailed and Complete Reconciliation of all COMPANY ITEMS

At the times specified in this CONTRACT and if none is specified then no later than every three (3) months during the performance of the T&I WORK, the T&I CONTRACTOR shall prepare and submit fully detailed, comprehensive and complete reconciliation reports for COMPANY ITEMS.

Each reconciliation report shall distinguish between those COMPANY ITEMS that are imported and those COMPANY ITEMS are obtained locally and any further sub-divisions the COMPANY may request. The T&I CONTRACTOR shall propose the format of the reconciliation to the COMPANY for approval and shall notify and invite the COMPANY to participate in the inspections of the COMPANY ITEMS for the reconciliation report.

The cost of any shortfall in the quantities, missing, and damaged COMPANY ITEMS shall be payable by the T&I CONTRACTOR to the COMPANY. Construction / cutting waste shall be identified in the reconciliation reports.

#### 14.3.8 Surplus and Scrap COMPANY ITEMS

Designation of the COMPANY ITEMS as surplus or scrap shall be proposed by the T&I CONTRACTOR on a PHASE by PHASE basis to the COMPANY for approval or as may be requested otherwise.

The COMPANY shall instruct the T&I CONTRACTOR to either:

- a) sell and/or dispose of scrap and/or surplus COMPANY ITEMS, or
- b) transfer surplus COMPANY ITEMS from WORKSITE to a location to be specified by the COMPANY.

Refer to Exhibit G Annex 10 (COMPANY ITEMS Surplus and Scrap Procedure).

Failing which the COMPANY ITEMS shall be deemed transferred to the next and subsequent PHASE.

All of the T&I CONTRACTOR's costs and expenses, management, overhead, and all of the T&I CONTRACTOR's other costs and expenses of whatsoever nature arising from and/or in connection with the sale and disposal of surplus and/or scrap COMPANY ITEMS for a PHASE shall be deemed included within the Initial CONTRACT PRICE for such PHASE except for transport costs for loading, transport and delivery of surplus COMPANY ITEMS to the COMPANY's PSB Supply Base at Songkhla, which shall be compensated by means of a CHANGE ORDER priced on a net cost basis without uplift and/or fee.

#### 14.4 T&I CONTRACTOR DOCUMENTS

##### 14.4.1 Preparation and Submission of T&I CONTRACTOR DOCUMENTS

The T&I CONTRACTOR shall ensure all T&I CONTRACTOR DOCUMENTS are developed and prepared in a correct, proper and timely manner fully in accordance with the terms and requirements of this CONTRACT. Such preparation shall include but is not limited to where required and/or necessary consultation with the EPC CONTRACTOR and utilization / incorporation of applicable EPC Interface documents, information and EPC Interface comments.

The T&I CONTRACTOR shall also provide a copy of required and/or necessary T&I CONTRACTOR DOCUMENTS to the EPC CONTRACTOR at the same time for review and comment.

If the EPC CONTRACTOR does not provide comments within seven (7) working days from receipt of the aforementioned mentioned documents, then subject to Exhibit A Annex-1, the T&I CONTRACTOR may, subject to the provisions of sub-article 14.15, proceed on the basis that the EPC CONTRACTOR has no comments.

The T&I CONTRACTOR shall also provide T&I CONTRACTOR DOCUMENTS to the EPC CONTRACTOR for endorsement in accordance with sub-article 14.15 and Exhibit A Annex-10.

##### 14.4.2 APPROVAL of T&I CONTRACTOR DOCUMENTS

The T&I CONTRACTOR shall submit all T&I CONTRACTOR DOCUMENTS required to be submitted in accordance with the requirements of Exhibit A Annex-

1 (Procedure and Minimum List for T&I CONTRACTOR DOCUMENTS) and the other terms and conditions of this CONTRACT.

If the COMPANY does not provide its APPROVAL or comments for a properly prepared and correctly submitted T&I CONTRACTOR DOCUMENT within the applicable period stated in Exhibit A Annex-1, the T&I CONTRACTOR DOCUMENT shall be deemed to have been APPROVED by the COMPANY at the expiry of such period and the T&I CONTRACTOR may proceed the T&I WORK, at his own risk, liability and expense but without limitation, waiver and/or restriction of COMPANY rights under this CONTRACT and otherwise.

14.4.3 T&I CONTRACTOR DOCUMENTS not subject to APPROVAL PROCEDURE

Unless otherwise specified in Exhibit A Annex-1, Correspondence (letters, Fabrication Yard Memoranda, SITE Memoranda, EPC and T&I CONTRACTOR Interface communications, etc.) shall not be subject to the Exhibit A Annex-1 APPROVAL procedure but shall be submitted via the PROJECT electronic data management system (EDMS) for information and if applicable / response.

14.4.4 Responsibility for T&I CONTRACTOR DOCUMENTS

APPROVAL of any T&I CONTRACTOR DOCUMENTS shall not relieve the T&I CONTRACTOR of any of his obligations, responsibilities and liabilities under this CONTRACT.

14.4.5 Deviations

The T&I CONTRACTOR shall not deviate from the requirements and terms of APPROVED EPC CONTRACTOR DOCUMENTS, APPROVED T&I CONTRACTOR DOCUMENTS nor from additional documents supplied by the COMPANY pursuant to sub-article 14.2 (if any), without prior approval of the COMPANY.

Any and all deviations from the EPC CONTRACTOR DOCUMENTS, the T&I CONTRACTOR DOCUMENTS shall be proposed by the T&I CONTRACTOR in advance as per the Exhibit H Technical Queries Process for approval by the COMPANY.

14.4.6 T&I FINAL DOCUMENTATION

The T&I CONTRACTOR shall prepare and shall submit T&I FINAL DOCUMENTATION on a progressive basis in such form, content and at such times and in the manner stipulated Exhibit A Annex-1 and the other requirements of this CONTRACT.

14.5 T&I CONTRACTOR ITEMS

14.5.1 Procurement and Supply

The T&I CONTRACTOR shall procure and supply all required and necessary T&I CONTRACTOR ITEMS and shall perform all required and necessary T&I WORK for and in connection therewith.

All T&I CONTRACTOR ITEMS shall:

- a) be new and shall be in full conformity and compliance with the type, quality and quantity required by this CONTRACT,

- b) be of sound design, specification, materials and workmanship,
- c) be capable of the degree of performance specified in this CONTRACT,
- d) be fit for the intended purpose specified in this CONTRACT either expressly or by implication, and if not so specified, be fit for their ordinary purpose as per the requirements of this CONTRACT.

Subject to the other terms of this CONTRACT, if at any time should any defects and/or deficiencies become apparent in any of the T&I CONTRACTOR ITEMS, the T&I CONTRACTOR shall propose the method of repair, replacement and/or rework to the COMPANY for approval.

The T&I CONTRACTOR shall rectify such defect(s) and/or deficiencies(s) in accordance with such approval within a timescale stipulated by the COMPANY at no cost to the COMPANY.

Any and all actions of the COMPANY (such as but not limited to approval, inspection and acceptance) shall not relieve the T&I CONTRACTOR of his obligations, responsibilities and liabilities with regard to CONTRACTOR ITEMS.

#### 14.5.2 Expediting

The T&I CONTRACTOR shall monitor, track and expedite all aspects (including; engineering, materials, manufacturing, assembly / fabrication, testing, packaging, preservation, transportation and delivery) of any and all T&I CONTRACTOR ITEMS as per the terms and requirements of this CONTRACT.

If the T&I CONTRACTOR should encounter delay in any of the foregoing, he shall immediately initiate all required and necessary actions to remedy and/or mitigate such delay(s). The T&I CONTRACTOR shall simultaneously inform the COMPANY of the actions taken or to be undertaken.

#### 14.5.3 Identification

At all PHASES of the T&I WORK, the T&I CONTRACTOR shall ensure the proper identification of all CONTRACTOR ITEMS with the corresponding records and maintenance of such identification markings. The T&I CONTRACTOR shall provide the COMPANY with a copy of all related certificates and documentation upon delivery of such items at the WORKSITE.

#### 14.5.4 Transportation and Delivery of T&I CONTRACTOR ITEMS

The T&I CONTRACTOR shall be responsible for the selection of the means of conveyance for the T&I CONTRACTOR ITEMS and from the delivery point for the T&I CONTRACTOR ITEMS to be transported by the T&I CONTRACTOR. Transportation shall be carried out at T&I CONTRACTOR's own risk.

T&I CONTRACTOR ITEMS shall be properly packed and secured in accordance with the terms and requirements of this CONTRACT and transported without loss or damage in a timely manner to the applicable T&I WORK Locations as required and necessary for the timely performance of the T&I WORK as per the WORK TIME SCHEDULE.

Unless specified to the contrary in this CONTRACT, all containment, packing cases, boxes, tins, wrappings and other packaging materials supplied by the T&I

CONTRACTOR shall be considered as non-returnable and their cost as having been included in the applicable Initial CONTRACT PRICE as well as charges for preparation of packing, boxing, crating, freight and other related services.

14.5.5 Storage, Protection, Maintenance

T&I CONTRACTOR ITEMS shall be properly stored, maintained and preserved in accordance with the terms and requirements of this CONTRACT, VENDOR and/or SUBCONTRACTOR recommendations and requirements, best professional practices and shall be protected against weather hazards, water, humidity, temperature, fire, theft, vandalism and all other risks and hazards.

The T&I CONTRACTOR shall use every means to prevent damage or loss whatsoever to the T&I CONTRACTOR ITEMS.

14.5.6 Detailed and Complete Reconciliation of T&I CONTRACTOR ITEMS

Without limitation or restriction of the obligation and liabilities of the T&I CONTRACTOR under this CONTRACT, the T&I CONTRACTOR shall during the performance of the T&I WORK and for the period of this CONTRACT, prepare and maintain a fully detailed, comprehensive and complete substantiated reconciliations of T&I CONTRACTOR ITEMS (received, used, surplus and scrap) and shall distinguish between Material Group 1 T&I CONTRACTOR ITEMS, Material Group 2 T&I CONTRACTOR ITEMS and those T&I CONTRACTOR ITEMS that are imported from those purchased in the Country of the SITE. The T&I CONTRACTOR shall make such reconciliations available to the COMPANY as and when requested to do so.

14.5.7 Use of Surplus Material Group 1 T&I CONTRACTOR ITEMS

Where feasible, surplus Material Group 1 CONTRACTOR ITEMS from a PHASE shall be utilized in a subsequent PHASE or PHASES. The T&I CONTRACTOR shall carefully store and preserve such surplus Material Group 1 CONTRACTOR ITEMS and shall comply with instructions from COMPANY with regard thereto. Costs and expenses of complying with the foregoing are deemed included within the CONTRACT PRICE and no additional compensation shall be due from the COMPANY to the T&I CONTRACTOR in this regard.

14.5.8 Disposal of Surplus and Scrap Material Group 1 T&I CONTRACTOR ITEMS

After completion of applicable T&I WORK activities, the T&I CONTRACTOR shall propose, and the COMPANY shall instruct the T&I CONTRACTOR to either sell or otherwise dispose of surplus and scrap Material Group 1 T&I CONTRACTOR ITEMS.

The T&I CONTRACTOR shall comply with the COMPANY's instructions and procedural requirements with regard to such sale / disposal of and shall obtain written approval from the COMPANY to the sale / disposal procedure, price and conditions before selling or disposing of any surplus and/or scrap Material Group 1 T&I CONTRACTOR ITEMS.

The full amount of the sale price, without deduction, shall be payable by the T&I CONTRACTOR to the COMPANY and this CONTRACT PRICE shall be adjusted accordingly by means of a CHANGE ORDER.

If the COMPANY should instruct T&I CONTRACTOR to transport surplus Material Group 1 T&I CONTRACTOR ITEMS from a WORKSITE to the COMPANY's PSB Warehouse/Supply Base in Songkhla, the T&I CONTRACTOR shall be compensated for the actual net cost of loading and transport from such WORKSITE to the COMPANY's Warehouse / Supply Base, without mark-up for management costs, profit or fee.

14.5.9 Disposal of Surplus and Scrap Material Group 2 T&I CONTRACTOR ITEMS

On completion of each T&I WORK activity and in any event prior to completion of the T&I WORK for each PHASE, the T&I CONTRACTOR shall dispose and/or remove from WORKSITES, all surplus and scrap Material Group 2 CONTRACTOR ITEMS that are no longer required for the T&I WORK, or not required for incorporation into the PLANT and which are not to be delivered to the COMPANY.

14.6 Onshore Construction Operations

The T&I CONTRACTOR shall perform the T&I Onshore Construction Operations in a proper, correct and timely manner in full compliance with the terms and requirements of this CONTRACT.

14.7 SITE Surveys

The T&I CONTRACTOR shall perform SITE surveys as are described in Exhibit A in a timely manner in accordance with Exhibit A and the terms and requirements of this CONTRACT.

14.8 Load-out Operations including Sea Fastening.

Subject to sub-article 14.15, Exhibit A Annex-10 and the other terms and requirements of this CONTRACT, the EPC CONTRACTOR shall perform Load Out Operations of new Wellhead Platforms Topsides, Jackets and Appurtenances.

Handover of the Topsides, Jackets and Appurtenances from the EPC CONTRACTOR to the T&I CONTRACTOR shall take place at the Anchorage Point in accordance with sub-article 19.1.1, Exhibit C and the other terms and requirements of this CONTRACT.

The T&I CONTRACTOR is responsible for and shall perform all other Load Out Operations for and in connection with the T&I WORK, including Brownfield Modifications (OPTION) in a correct, proper and timely manner in accordance with the terms and requirements of this CONTRACT.

14.9 Transportation and Installation at the SITE

14.9.1 Marine Transportation

The T&I CONTRACTOR shall receive new Wellhead Platform Topsides, Jackets and Appurtenances as aforesaid and shall safely transport them to the SITE. If required, the T&I CONTRACTOR shall also transport fabricated PLANT components and related items for Brownfield Modifications to the SITE.

14.9.2 Land Transportation

The T&I CONTRACTOR shall perform all required and/or necessary land transportation for and in connection with the T&I WORKS.

#### 14.9.3 Offshore Construction and/or Installation at SITE

The T&I CONTRACTOR is responsible for and shall perform all Offshore Construction and Installation Operations at the SITE.

For clarity rectification of defects and deficiencies in the EPC WORK and /or repairs, replacements, rework related to defective and/or deficient parts of EPC PLANT components and related items shall not be for purposes of this CONTRACT be considered as T&I WORK.

#### 14.9.4 PLANT Setting Out

The T&I CONTRACTOR shall perform all PLANT setting out in strict and full compliance with the terms and requirements of this CONTRACT.

The T&I CONTRACTOR shall be responsible for the correct and timely setting out of the PLANT in relation to the original point lines, levels of reference and/or co-ordinates given by the COMPANY and for the correctness of the positions, locations, levels, dimensions and alignment of all parts of the PLANT.

If at any time, during the performance of the T&I WORK, any error appears in the setting out of the T&I CONTRACTOR shall immediately rectify such error to COMPANY's satisfaction.

Should the T&I CONTRACTOR demonstrate that such an error is based on incorrect information provided by the COMPANY and whose incorrectness could not have been detected by an experienced contractor, then the expense of rectifying same shall be borne by the COMPANY.

In all other cases, additional expenses and delays shall be for T&I CONTRACTOR's account.

#### 14.10 Pre-commissioning and Commissioning

The T&I CONTRACTOR shall perform pre-commissioning and also commissioning (to the extent set out in Exhibit A, Exhibit A Annex-5 and the other terms and requirements of this CONTRACT.

The T&I CONTRACTOR shall ensure the timely presence at WORKSITES of all required and/or necessary specialist, SUBCONTRACTOR, VENDOR and SUPPLIER Representatives and/or PERSONNEL.

#### 14.11 Technical Assistance during Commissioning and Start-up

The T&I CONTRACTOR shall, if and when requested by the COMPANY, provide T&I CONTRACTOR's PERSONNEL to the COMPANY, as technical assistance for COMPANY offshore commissioning and start-up operations of the PLANT.

The T&I CONTRACTOR shall be compensated for the provision of such PERSONNEL in the manner stipulated Exhibit B and the other terms and requirements of this CONTRACT.

Such technical assistance shall only be required if requested by COMPANY and as such shall not delay the issue of a PROVISIONAL ACCEPTANCE CERTIFICATE.

#### 14.12 Spare Parts for Offshore Commissioning and Start-up

The T&I CONTRACTOR shall supply and deliver special tools, spare parts and consumables for offshore commissioning and start-up operations to be provided by the T&I



CONTRACTOR to the extent described in Exhibit A, Exhibit A Annex-8 and the other applicable terms and conditions of this CONTRACT.

14.13 Provision of Services and Facilities to the COMPANY

The T&I CONTRACTOR shall provide services and facilities for COMPANY's PERSONNEL onshore and offshore at T&I WORKSITES, T&I WORKSHOPS on board the MARINE SPREAD and other T&I WORK Locations as the COMPANY may instruct pursuant to the Call-Off Procedure described in Exhibit A, Exhibit A Annex-7.

The T&I CONTRACTOR shall be compensated for provision of such services and facilities in accordance with Exhibit B and the other terms of this CONTRACT.

14.14 OPTIONS

The T&I CONTRACTOR shall perform OPTIONS (if any) only if instructed by the COMPANY to do so. The COMPANY shall have the right but not as an obligation to commit to or exercise any of the OPTIONS. If the COMPANY does not exercise its right to have an OPTION performed, no remuneration, compensation or indemnity shall be due to T&I CONTRACTOR in respect of such an OPTION.

14.15 EPC and T&I Interfaces

14.15.1 The T&I CONTRACTOR

In addition to the co-ordination and interface management requirements set out in Exhibit A, the T&I CONTRACTOR shall perform all required and/or necessary T&I & T&I Interface Actions to be performed by the T&I CONTRACTOR in an expeditious and timely in accordance with the terms and requirements of this CONTRACT.

14.15.2 Default of EPC and T&I Interface Obligations by the EPC CONTRACTOR

If the EPC CONTRACTOR:

- a) fails to correctly perform a designated EPC action/activity stipulated in an applicable EPC & T&I Register, or
- b) performs a designated EPC action/activity later than stipulated in an applicable EPC & T&I Register, or
- c) changes previously provided EPC CONTRACTOR interface documents and/or information, or
- d) changes one or more previously provided APPROVED EPC CONTRACTOR DOCUMENTS
- e) requests, causes or if changes to APPROVED for Construction T&I CONTRACTOR DOCUMENTS are attributable to the EPC CONTRACTOR, his SUBCONTRACTORS and/or VENDOR,

the T&I CONTRACTOR shall immediately inform the COMPANY and shall comply with the COMPANY's instructions with regard thereto.

The COMPANY shall compensate the T&I CONTRACTOR by means of a CHANGE ORDER for resulting additional T&I WORK (if any) performed by the T&I CONTRACTOR upon instruction from the COMPANY.

The CHANGE ORDER shall be priced in accordance with sub-article 22.3, and other terms and requirements of the T&I CONTRACT and shall be solely for the

redoing of T&I WORK caused and/or as a result of the EPC CONTRACTOR's fault as described in this sub-article 14.15.2.

#### 14.15.3 Default of EPC and T&I Interface Obligations by the T&I CONTRACTOR

The T&I CONTRACTOR shall be liable for compensation to be paid by the COMPANY to the EPC CONTRACTOR for resulting additional EPC WORK if the T&I CONTRACTOR:

- a) fails to correctly perform a designated T&I action/activity stipulated in an applicable EPC & T&I Register, or
- b) performs a designated T&I action/activity Interface Action later than stipulated in an applicable EPC & T&I Register, or
- c) changes previously provided T&I CONTRACTOR interface document and/or information, or
- d) changes one or more previously provided APPROVED T&I CONTRACTOR DOCUMENTS, or
- e) requests, causes or if changes to APPROVED for Construction EPC CONTRACTOR DOCUMENTS are attributable to the T&I CONTRACTOR, his SUBCONTRACTOR and/or VENDOR.

Upon the occurrence of any or all the sub-article 14.15.3 a), b), c), d), and/or e) events, the COMPANY shall compensate the EPC CONTRACTOR by means of a CHANGE ORDER for resulting additional EPC WORK so caused as a result of the T&I CONTRACTOR's fault.

Such a CHANGE ORDER shall be prepared and priced under the terms of the EPC CONTRACT and the applicable T&I Initial CONTRACT PRICE shall be reduced by means of a negative CHANGE ORDER to compensate the COMPANY for the aforementioned compensation amount to the EPC CONTRACTOR.

#### 14.15.4 COMPANY's Decision

If there is any difference, disagreement and/or dispute concerning the content and pricing any such CHANGE ORDER referred to in sub-article 14.5.2 and/or 14.5.3, and/or related Extension of Time, the decision of the COMPANY shall be final and binding on the PARTIES until and if such difference, disagreement and/or dispute is finally settled as per sub-article 54.

#### 14.15.5 Waiver of Rights to CLAIM

The T&I CONTRACTOR hereby confirms that except for CHANGE ORDER(S) for compensation for additional work and/or Extension of Time, as stipulated in sub-article 14.15.2, he shall not make any other CLAIM whatsoever for and/or in connection with any act, error, omission, fault and or neglect of the EPC CONTRACTOR with regard to EPC & T&I Interface Actions to be performed by the EPC CONTRACTOR. In addition, the T&I CONTRACTOR shall not CLAIM directly to the EPC CONTRACTOR.

**Article 15 WORK TIME SCHEDULE and Progress Control**

15.1 **WORK TIME SCHEDULE**

The T&I CONTRACTOR hereby acknowledges and agrees that time is of the utmost importance and the timely, expeditious correct, and sequential completion of the T&I WORK, PLATFORM the FSO WORK and each PHASE and the respective parts thereof on or before the applicable COMPLETION DATES and/or Key Dates is an essential condition of this CONTRACT.

The T&I CONTRACTOR hereby agrees that the WORK TIME SCHEDULE for each PHASE shall only be subject to modification in accordance with the provisions of this article 15 and the other terms and requirements of this CONTRACT.

The T&I CONTRACTOR hereby guarantees the timely, expeditious correct, and sequential performance and completion of the T&I WORK as per the approved T&I Detailed Work Time Schedule (latest version) and the applicable WORK TIME SCHEDULE including required COMPLETION DATES failing which the COMPANY shall have the remedies specified in this CONTRACT and otherwise including those under article 48, sub-articles 34.1 and 34.2.

15.2 **T&I Detailed Work Time Schedules**

The T&I CONTRACTOR shall prepare T&I Detailed Work Time Schedule(s) on a PHASE by PHASE basis and where applicable on an installation year basis, in accordance with the requirements of Exhibit C and the other terms and requirements of this CONTRACT. All T&I Detailed Work Time Schedules shall be subject to prior approval by the COMPANY.

15.3 **Progress Monitoring and Control**

The T&I CONTRACTOR shall perform planning, monitoring, progress control and progress reporting in compliance with the requirements of Exhibit A, Exhibit B, Exhibit C, Exhibit G Annex-5 and the other applicable terms and requirements of this CONTRACT.

15.4 **Notification of Events Which Adversely Affect Progress of the T&I WORK**

Unless otherwise agreed by the COMPANY, the T&I CONTRACTOR shall notify the COMPANY no later than seventy-two (72) hours after the first occurrence of each event that adversely affects and/or will affect the progress of the T&I WORK.

Such notification shall provide:

- a) Details of the event,
- b) Explanation of the cause
- c) Explanation of the anticipated effect on the performance of the T&I WORK
- d) Details of sub-article 15.6.7 and/or sub-article 15.7 corrective/mitigating actions undertaken, and proposed.

The T&I CONTRACTOR shall thereafter provide the COMPANY with regular updates and all other relevant information with regard to sub-article 15.4.

The foregoing is without restriction and limitation of the T&I CONTRACTOR's obligations under sub-articles 15.6, 15.7 and the other terms and requirements of this CONTRACT.

## 15.5 Allowable Extension of Time

Subject to compliance with sub-articles 15.6, 15.7 and the other terms and requirements of this CONTRACT, the T&I CONTRACTOR shall be entitled to a CHANGE ORDER for an extension of a required COMPLETION DATE and/or required Key Date for delay caused solely by each and any of the following:

- a) clarification by the COMPANY pursuant to article 6 that is made later than the time limit stated in sub-article 6.4,
- b) provision of COMPANY PROVIDED INFORMATION later than is stated in Exhibit C or, the date and/or date actually needed by the T&I CONTRACTOR, whichever is the latest,
- c) later delivery of COMPANY ITEMS (if any) than is stated in Exhibit I, when such are expressly due within a specified period after the EFFECTIVE DATE,
- d) subject to sub-article 14.3.3, shortfall in delivered quantities, defects or damages in COMPANY ITEMS (if any) and provided that the T&I CONTRACTOR has not contributed in any way to such defect or damage and has not delayed the report of its discovery,
- e) suspension of the T&I WORK in accordance with the provisions of sub-article 49.1 and subject to sub-article 49.2.2 take-over of uncompleted parts of the PLANT,
- f) subject to sub-article 16.4 and the other terms and requirements of this CONTRACT, unnecessary re-inspection or re-testing at the COMPANY's request,
- g) FORCE MAJEURE in accordance with the provisions of sub-article 50.1,
- h) in case of damage or loss caused by any accident occurring on or between the WORKSITE, necessitating repair or replacement of any part of the RESULT OF THE WORK, and provided the T&I CONTRACTOR can evidence that he has fully complied with the CONTRACT and the T&I CONTRACTOR and/or any SUBCONTRACTOR and/or any VENDOR have not contributed to such loss or damage,
- i) additional T&I WORK pursuant to sub-article 14.15.2 (EPC and T&I Interfaces) and or delay to the performance of the T&I WORK because of the EPC WORK and/or caused by or the fault of the EPC CONTRACTOR,
- j) rescue and salvage operations as provided for in sub-article 37.9.1,
- k) approved Weather Standby of Barge/Vessel of the Marine spread when performing T&I WORK at the SITE as per Exhibit B and for periods of evacuation from the SITE of such VESSELS because of TROPICAL CYCLONE as per Exhibit B,
- l) approved Operational Standby as per Exhibit B,
- m) acts or omission of the COMPANY, its PERSONNEL or the COMPANY OTHER CONTRACTORS subject to the exceptions stated in sub-article 22.2 and elsewhere in this CONTRACT, and/or
- n) other Extension of Time expressly provided for under this CONTRACT.

Always provided that the T&I CONTRACTOR can demonstrate with supporting evidence that a required COMPLETION DATE will be and/or is delayed solely due to one or more of the above reasons affecting the critical path of the WORK TIME SCHEDULE, as further identified in the approved T&I Detailed Work Time Schedule.

## 15.6 CLAIMS for Extension of Time

### 15.6.1 Generally

Each extension of time to a required COMPLETION DATE, a required Key Date and modifications to an approved T&I Detailed Work Time Schedule shall be made in accordance with the provisions of this article 15 and the other terms and requirements of this CONTRACT.

### 15.6.2 Notification of CLAIM for Extension of Time

The T&I CONTRACTOR shall notify the COMPANY of his intention to claim an extension of time to required COMPLETION DATE and/or required Key Date at the earliest opportunity and in any event no later than ten (10) working days after the first occurrence of the event for which he intends to CLAIM a time extension as aforesaid.

### 15.6.3 Change Order Proposal for extension of time

In addition to the notification requirements of sub-article 15.6.2 the T&I CONTRACTOR shall prepare and submit a Change Order Proposal for each extension of time which shall be prepared and submitted in accordance with the requirements of article 15, sub-article 22.2.4 b), Exhibit G Annex-4 and the other terms and requirements of this CONTRACT.

### 15.6.4 Failure to Comply with sub-articles 15.6.2 and/or 15.6.3

Unless otherwise agreed to by the COMPANY:

- a) if the T&I CONTRACTOR fails to notify the COMPANY within the time limit stated in sub-article 15.6.2 the COMPANY shall have the right to reject the related CLAIM for extension of time and the T&I CONTRACTOR shall not be entitled to any CLAIM based on the occurrence of the event,
- b) if the T&I CONTRACTOR fails to submit a Change Order Proposal within the time limit stated in sub-article 15.6.3 or such other period as the COMPANY may agree then the COMPANY shall have the right to reject the Change Order Proposal and the T&I CONTRACTOR shall not be entitled to any CLAIMS based on the occurrence of the event(s) that are the subject matter of the Change Order Proposal.

### 15.6.5 Calculation of Extension of Time.

Extensions of time to a required COMPLETION DATES and/or a required Key Dates shall be calculated as the delay caused by events specified in sub-article 15.5 to the critical path of the applicable WORK TIME SCHEDULE as identified in the applicable approved T&I Detailed Work Time Schedule after the results of efforts to overcome and/or minimize the delay and the results of Recovery Actions, if any, as per sub-article 15.6.7 are taken into account.

In the case of an overlapping delay i.e. where more than one event causes a concurrent delay to the aforesaid critical path and the cause of at least one of those events, but not all of them, is not events specified in sub-article 15.5, then to the extent and period that such delays are concurrent, the T&I CONTRACTOR shall not be entitled to an extension of time for the period of such concurrent delay.

#### 15.6.6 Evaluation of Extension of Time CLAIMS

Each extension of time shall be evaluated by the COMPANY by reference to the applicable Change Order Proposal, other documents available to it plus further documents and/or clarification the COMPANY may request the T&I CONTRACTOR to provide.

The PARTIES shall endeavor to mutually agree each extension of time (if any) failing which the COMPANY may elect to determine any such extension of time after due representation from the T&I CONTRACTOR.

In such event the COMPANY's determination shall be binding on the PARTIES until and if such difference, disagreement and/or dispute is finally settled as per sub-article 54.

#### 15.6.7 Obligation to Overcome and Minimize Delay

In all cases where the T&I CONTRACTOR is entitled to an extension of time for a reason stated in sub-article 15.5, the T&I CONTRACTOR shall;

- a) use all reasonable endeavors to overcome or minimize the actual or anticipated delay,
- b) submit a Recovery Plan and if requested an updated T&I Detailed Work Time Schedule to the COMPANY for review and approval.
- c) comply with the COMPANY's requirements with regard to items 15.6.7 a) and b) and if instructed by the COMPANY implement any or all of the Recovery Actions listed in sub- article 15.7.

If the implementation of Recovery Actions as per sub-article 15.6.7 c) causes the T&I CONTRACTOR to incur additional expenses he would not have otherwise incurred the T&I CONTRACTOR shall be entitled to request a CHANGE ORDER pursuant to article 22.

The preceding paragraph shall not apply for periods of overlapping delay caused by reasons for which the T&I CONTRACTOR is not entitled to an extension of time pursuant to sub-article 15.5.

#### 15.6.8 Extension of Time for Events Occurring After Required COMPLETION DATES

The CONTRACTOR shall not CLAIM and shall not be entitled to an extension of time for events that occur after a required COMPLETION DATE and which delay the achievement of such COMPLETION DATE except by reason of:

- a) later than required clarification by the COMPANY under sub-article 6.4,
- b) subject to sub-article 14.3.3, shortfall in delivered quantities, defects or damages in COMPANY ITEMS (if any), and provided that the T&I CONTRACTOR has not contributed in any way to such defect or damage and has not delayed the report of its discovery,
- c) suspension of T&I WORK in accordance with the provisions of sub-article 49.1 and subject to sub-article 49.2.2 take-over of uncompleted parts of the PLANT,
- d) Subject to sub-article 16.4 and the other terms and requirements of this CONTRACT, unnecessary re-inspection or re-testing at the COMPANY's request,

- e) FORCE MAJEURE in accordance with the provisions of sub-article 50.1,
- f) acts or omission of the COMPANY, its PERSONNEL or the COMPANY OTHER CONTRACTORS subject to the exceptions stated in article 22.

The COMPANY shall not be bound to bear any additional cost as a result of later achievement of any such COMPLETION DATE unless solely and directly due to an act and/or omission of the COMPANY and the COMPANY OTHER CONTRACTORS.

15.7 Events for which the T&I CONTRACTOR is not entitled to an extension of time

In case of anticipated and/or actual delay to the progress of the WORK for which the T&I CONTRACTOR is not entitled to an extension of time he shall, at his own risk, cost, and expense initiate and implement all required and/or necessary Recovery Actions to overcome and if not possible to overcome then to minimize actual or anticipated delay.

Without limitation, such Recovery Actions may include, as appropriate:

- a) increasing the working hours,
- b) increasing the number of the T&I CONTRACTOR's PERSONNEL
- c) mobilizing / employing additional resources,
- d) mobilizing / using additional CONSTRUCTION EQUIPMENT,
- e) expediting / accelerating delivery of CONTRACTOR ITEMS
- f) rescheduling and or resequencing of the T&I WORK,
- g) any other appropriate recovery action required and/or necessary.

In all cases of anticipated and/or actual delay as aforesaid the T&I CONTRACTOR shall:

- a) submit a Recovery Plan explaining how the T&I CONTRACTOR proposes to overcome and/or mitigate the delay and to achieve the required Key Dates and/or required COMPLETION DATES,
- b) propose Recovery Actions the T&I CONTRACTOR will implement to the COMPANY for approval, and/or
- c) if requested, submit an updated T&I Detailed Work Time Schedule to the COMPANY for approval.

15.8 The COMPANY's Rights

The provisions of sub-articles 15.1 to 15.7 are without restriction and/or limitation of the COMPANY's rights under law and this CONTRACT and otherwise, including those under article 48, sub-articles 34.1 and 34.2, respectively.

**Article 16 Quality Management**

16.1 The T&I CONTRACTOR's Obligations

The T&I CONTRACTOR shall ensure that all required and necessary quality management and related activities (including those for SUBCONTRACTORS, VENDORS and to the extent applicable SUPPLIERS and third parties) in connection with:

- a) the T&I WORK,
- b) the T&I CONTRACTOR DOCUMENTS,
- c) the CONTRACTOR ITEMS,
- d) the CONSTRUCTION EQUIPMENT,

- e) and all other related matters and activities,  
are performed in accordance with the requirements of APPLICABLE LAWS, Exhibit A, Exhibit H and the other terms and requirements of this CONTRACT.

16.2 Not used (Independent Engineering Review and Certification)

16.3 Marine Warranty Surveyor

The T&I CONTRACTOR shall engage the services of an independent Marine Warranty Surveyor, who shall be selected, appointed in accordance with the provisions of this CONTRACT and who shall perform Marine Warranty Surveyor WORK for and in connection with the T&I WORK and the T&I WORK.

The Marine Warranty Surveyor activities for and in connection with the T&I WORK and Marine Warranty Surveyor Activities for the T&I WORK are described in:

- a) Exhibit A,
- b) Exhibit A Annex-4 and
- c) the other terms and requirements of this CONTRACT.

The Marine Warranty Surveyor shall be paid by the T&I CONTRACTOR for the aforesaid Marine Warranty Surveyor WORK that is satisfactorily performed.

Compliance with Marine Warranty Surveyor Requirements shall not limit, restrict nor relieve the T&I CONTRACTOR of his responsibilities and/or liabilities under the terms of this CONTRACT and APPLICABLE LAWS.

16.4 Audits, Inspections and Tests

The T&I CONTRACTOR shall give adequate and required notice and shall perform / arrange for all required and necessary audits, inspections and tests of the T&I WORK, PLANT, T&I CONTRACTOR DOCUMENTS, the CONTRACTOR ITEMS, the COMPANY ITEMS, CONSTRUCTION EQUIPMENT and the RESULT OF THE WORK at all stages of execution by the T&I CONTRACTOR, SUBCONTRACTORS, VENDORS and to the extent applicable by SUPPLIERS and/or third parties.

The COMPANY and/or PERSONNEL designated by the COMPANY shall have the right to attend and witness any and all such audits, inspections and tests and to collect evidence and to receive copy reports and test results.

The COMPANY shall also have the right to perform or have performed and/or instruct audits, inspection and/or testing at any time to verify if the T&I WORK, CONTRACTOR DOCUMENTS, the RESULT OF THE WORK and the PLANT in accordance with the terms and requirements of this CONTRACT and/or APPLICABLE LAWS.

The costs and expenses of all audits, inspections and tests are included in the CONTRACT PRICE, except for re-inspection and re-testing if:

- a) the T&I CONTRACTOR has already performed inspection and testing in accordance with the terms of this CONTRACT, and
- b) provided the T&I CONTRACTOR has given adequate / required notice prior of audit, inspection testing and/or cover-up or putting out of view, and



- c) the parts of the T&I WORK and/or the PLANT instructed by the COMPANY to be re-inspected / re-tested are found to be in conformity with the terms and requirements of this CONTRACT.

In such event the COMPANY shall bear the direct cost of uncovering and/or testing provided such costs are satisfactorily justified by the T&I CONTRACTOR (including for uncovering, dismantling, re-installation, if any) and the provisions of sub-article 15.5 shall apply for any unavoidable Extension of Time to the applicable required COMPLETION DATE as may have been extended by CHANGE ORDER.

16.5 Independent Third-Party Inspection and Certification

The T&I CONTRACTOR shall engage the services of an Independent Inspection and Certification Agency to inspect, verify, witness, review and certify the particular parts of the T&I WORK and related PLANT, CONSTRUCTION EQUIPMENT as per the requirements of this CONTRACT and/or APPLICABLE LAWS.

The selection and appointment of the Independent Inspection and Certification Agency shall be subject to prior approval by the COMPANY as per Exhibit A, Exhibit H, Exhibit J, Exhibit G Annex-2 and the other terms and requirements of this CONTRACT.

**Article 17 Reports**

During the performance of the T&I WORK, at such times as are stipulated in this CONTRACT, the T&I CONTRACTOR shall provide the COMPANY with accurate and complete information and reports with respect to the T&I WORK already performed, the T&I WORK in progress, risks, the T&I WORK scheduled and the events affecting and likely to effect the performance of the T&I WORK, and the timely completion of T&I WORK activities and the PLANT and any other required and /or necessary report as per the terms and requirements of this CONTRACT.

**Article 18 Maintenance Services**

18.1 Availability and Prices for Special Tools, Parts and Services for PLANT Operations

Prior to placing any SUBCONTRACT and any Purchase Orders for the supply of CONTRACTOR ITEMS the T&I CONTRACTOR shall use his best endeavors to provide, and/or obtain directly from each potential SUBCONTRACTOR and potential VENDOR a firm commitment from such SUBCONTRACTOR and/or VENDOR for the continuous availability on the best terms, prices and conditions for all related special tools, spare parts and maintenance services necessary for such items for the COMPANY's benefit for a duration of ten (10) years after the ex-works delivery of such CONTRACTOR ITEM.

18.2 List of Spare Parts for First Two Years of Operations

Prior to placing any SUBCONTRACT and any Purchase Order for CONTRACTOR ITEMS, the T&I CONTRACTOR shall establish and submit for approval a detailed list of recommended spare parts for the first two (2) years of continuous operation of the PLANT, specifying quantities, unit prices and schedule for delivery based on detailed information and data obtained in writing from the SUBCONTRACTOR and/or VENDOR.

**Article 19 INTERIM and PROVISIONAL ACCEPTANCE CERTIFICATES**

**19.1 INTERIM CERTIFICATES**

19.1.1 The COMPANY shall issue INTERIM CERTIFICATES for the T&I WORK and PLANT as follows:

- a) Not used
- b) **READY FOR LOAD OUT CERTIFICATE**

READY FOR LOAD OUT CERTIFICATE shall be issued on a PLATFORM by PLATFORM basis separately for each of the following major PLANT components to document and record when each of such major component is READY FOR LOAD OUT.

- i) New Wellhead Platform Topsides,
- ii) New Wellhead Platform Jackets and Appurtenances.

Each READY FOR LOADOUT CERTIFICATE shall be generally in the format of ANNEX-6/B hereof and shall be signed by the T&I CONTRACTOR, the T&I CONTRACTOR and the COMPANY.

A copy of the Marine Warranty Surveyor's approval to Commence Load Out Operations Certificate shall be attached to each READY FOR LOAD OUT CERTIFICATE.

- c) **READY FOR TRANSPORTATION CERTIFICATES**

READY FOR TRANSPORTATION CERTIFICATES shall be issued separately on a PLATFORM by PLATFORM basis for each shipment of the following major components to document and record when each shipment is READY FOR TRANSPORTATION.

- i) New Wellhead Platform Topsides,
- ii) New Wellhead Platform Jackets.

If a shipment includes more than one major component, then a single READY FOR TRANSPORTATION CERTIFICATE shall be issued for such shipment.

Each READY FOR TRANSPORTATION CERTIFICATE shall be generally in the form as per ANNEX-6/C hereof and shall be signed by the T&I CONTRACTOR, the T&I CONTRACTOR and the COMPANY.

A copy of the Marine Warranty Surveyor's approval to Commence Towage Certificate shall be attached to each READY FOR TRANSPORTATION CERTIFICATE.

- d) **READY FOR RELOCATION CERTIFICATE**

READY FOR RELOCATION CERTIFICATE shall be issued for each existing Wellhead Platform Topsides relocation to document and record when each Topsides is READY TO RELOCATION and Lifting Operations.

Each READY FOR RELOCATION CERTIFICATE shall be generally in the form as per ANNEX-6/D.

A copy of the Marine Warranty Surveyor's Approval to Commence Lifting Operations shall be attached to each READY FOR RELOCATION CERTIFICATE.

e) READY FOR INSTALLATION CERTIFICATE

This shall state that the applicable PLANT component, as referenced in the READY FOR INSTALLATION CERTIFICATE is in a state of readiness for installation at the SITE, and that the related vessels of MARINE SPREAD with all necessary documentation and certification have been Approved by the COMPANY the Marine Warranty Surveyor and that the SITE is ready to receive the said PLANT component.

Each READY FOR INSTALLATION CERTIFICATE shall be generally in the form as per ANNEX-6/E.

A copy of the Marine Warranty Surveyor's approval to Commence Installation Certificate shall be attached to each READY FOR TRANSPORTATION CERTIFICATE.

f) HANDOVER CERTIFICATE

HANDOVER means in relation to a PLATFORM or relevant part thereof or the FSO WORK or part thereof, as applicable, that it has been installed offshore and:

- i) it is fully constructed and installed and satisfactorily completed as per the requirements of this CONTRACT requirements, and
- ii) it is mechanically complete, ready for commissioning, and where applicable commissioned, and
- iii) the first fill of all lubricants, fuels, chemicals, water, consumables, inhibitors, gases, etc., has been charged and if applicable the respective parts of the PLANT have been preserved in accordance with the terms and requirements of this CONTRACT, and
- iv) all related required spare parts for commissioning and start-up have been delivered to the COMPANY, and
- v) T&I FINAL DOCUMENTATION necessary for Commissioning and Start-up been reviewed and commented by the COMPANY and compiled and submitted as per the terms and requirements of this CONTRACT for APPROVAL including Post Installation Survey Reports and if applicable the As-Built Pipeline Survey Report and
- vi) all related detected pipeline free spans have been corrected, related pipeline expansion spools have been tied-in, related pipeline has been hydrotested and preserved in accordance with the CONTRACT, and
- vii) all Punch List Items have been rectified and the relevant part of the PLANT is complete in all respects and ready to be handed over to COMPANY,

and the responsibility for care and custody is handed over from the T&I CONTRACTOR to the COMPANY in accordance and as per the terms and requirements of this CONTRACT.

Each HANDOVER CERTIFICATE shall be generally in the form as per ANNEX-6/F.

g) MARINE SPREAD RELEASE CERTIFICATE

MARINE SPREAD RELEASE CERTIFICATE shall be issued by the COMPANY on request by the CONTRACTOR and shall state that a vessel or vessels of the MARINE SPREAD may be demobilized from the SITE if and provided the T&I WORK involving the MARINE SPREAD or part thereof has been completed.

Each MARINE SPREAD RELEASE CERTIFICATE shall be generally in the form as per ANNEX-6/G.

Liability for care and custody of the applicable major PLANT components and related items referred to in sub-article 19.1.1 c) shall transfer from the EPC CONTRACTOR to the T&I CONTRACTOR at the effective date and time of the applicable READY FOR TRANSPORTATION CERTIFICATE and to the COMPANY as stated in sub-article 37.1, subject to the other terms and requirements of this CONTRACT.

19.1.2 Procedure for INTERIM CERTIFICATES

The following procedure and requirements shall apply for each INTERIM CERTIFICATE mentioned above:

- a) The T&I CONTRACTOR shall provide (MARINE SPREAD RELEASE CERTIFICATES excepted) not less than fourteen (14) days advance notice, or such longer period if necessary, and/or required by the COMPANY, of the anticipated date of achieving all requirements for the issue such an INTERIM CERTIFICATE.
- b) Notices shall be in the form of Site Memoranda and shall be issued to the COMPANY by the T&I CONTRACTOR together with all required and necessary supporting and back up information, via the Project EDMS.
- c) If required, a Joint Inspection shall be conducted as per the requirements listed in Exhibit A.
- d) Subject to the T&I CONTRACTOR's compliance with sub-article 19.1.2 b), the COMPANY shall either issue the applicable INTERIM CERTIFICATE or shall specify in writing reasons in reasonable detail any aspect that does not appear to conform to the terms and requirements of this CONTRACT.
- e) The T&I CONTRACTOR shall promptly perform any and all required corrective T&I WORK and/or replacement and/or outstanding T&I WORK, at his own risk, cost and expense and with no Extension of Time.
- f) The foregoing procedure as per 19.1.2 a), b), c) and d) shall be repeated until all required and/or necessary corrective T&I WORK and/or

replacement and/or outstanding T&I WORK, is completed and the INTERIM CERTIFICATE can be issued.

- g) Dates and times for re-inspection shall be proposed by the CONTRACTOR and shall be subject to availability of the EPC CONTRACTOR (where applicable) and approval by the COMPANY.

#### 19.1.3 Particular Conditions for INTERIM CERTIFICATES

The issue of an INTERIM CERTIFICATE shall not be used as conclusive evidence that the T&I WORK has been performed in accordance with the terms and requirements of this CONTRACT nor shall the issue of an INTERIM CERTIFICATE restrict the COMPANY's rights under sub-article 16.4 (Audits, inspections and tests) and the other terms and requirements of this CONTRACT.

For each HANDOVER CERTIFICATE the COMPANY may at its sole discretion and choice, but not as an obligation and after consideration of the number and importance of Outstanding T&I Punch List Items and T&I WORK Items Outstanding, if any, issue the HANDOVER CERTIFICATE subject to requirement that the T&I CONTRACTOR shall complete the Outstanding T&I Punch List Items and T&I WORK Items within a fixed period of time and subject conditions stated in the HANDOVER CERTIFICATE.

In the event of any difference or disagreement and/or dispute as to the state of readiness of a commence of READY FOR LOAD OUT and/or be READY FOR TRANSPORTATION the provided the applicable Marine Warranty Certificate has been issued, the COMPANY's decision shall be final and binding and the T&I CONTRACTOR shall comply with such decision notwithstanding there are punch list items and/or minor WORKS outstanding.

#### 19.2 PROVISIONAL ACCEPTANCE CERTIFICATES

The following procedure shall be followed for each PROVISIONAL ACCEPTANCE CERTIFICATE which shall be issued on a PLATFORM by PLATFORM basis:

- 19.2.1 After all INTERIM CERTIFICATES are obtained by the T&I CONTRACTOR for a PHASE, when the T&I CONTRACTOR considers that all T&I WORK for a PLATFORM is completed in accordance with the terms and requirements of this CONTRACT as modified by CHANGE ORDERS, he shall notify the COMPANY accordingly and, in such notification, request the COMPANY to issue the corresponding PROVISIONAL ACCEPTANCE CERTIFICATE.
- 19.2.2 Each such notice shall be made formally in writing by letter and shall contain all required and/or necessary supporting documents.
- 19.2.3 Within thirty (30) days after receipt of a valid notice issued pursuant to sub-article 19.2.1 the COMPANY shall issue to the T&I CONTRACTOR either:
  - a) the PROVISIONAL ACCEPTANCE CERTIFICATE, or
  - b) a written notice specifying in reasonable detail any respect in which the T&I WORK and/or the related applicable PLANT components and/or related items do not conform to the requirements of this CONTRACT, in which case the T&I CONTRACTOR shall promptly perform such

Outstanding T&I Punch List Items and, if any, outstanding T&I WORK Items.

19.2.4 The foregoing procedure shall be repeated, if necessary, until all the applicable T&I WORK is completed, and the applicable PROVISIONAL ACCEPTANCE CERTIFICATE shall then be issued.

Each PROVISIONAL ACCEPTANCE CERTIFICATE shall be generally in the format of ANNEX-7 hereto and shall state the effective date on which PROVISIONAL ACCEPTANCE occurred.

19.2.5 For clarity, defects and deficiencies appearing in the WARRANTY PERIOD shall not be considered as T&I WORK for the purposes of this sub-article 19.2 but shall be rectified and/or replaced in accordance with the requirements of article 20 subject to the other terms and requirements of this CONTRACT.

## **Article 20 Warranties**

### **20.1 General**

The T&I CONTRACTOR guarantees that the T&I WORK and the PLANT shall be constructed, performed, and installed in accordance with the requirements of this CONTRACT.

Subject to the warranty exceptions and exclusions in sub-article 20.2 the T&I CONTRACTOR hereby extends to the COMPANY full design, material, workmanship and performance warranties as set out in this CONTRACT, against any and all defective or faulty PLANT and T&I WORK.

The T&I CONTRACTOR further guarantees that the T&I CONTRACTOR ITEMS shall be fit for the purpose and use for which they are intended according to this CONTRACT.

### **20.2 Warranty Exceptions and Exclusions**

Notwithstanding the generality of sub-article 20.1 here above:

- a) subject to the provisions of sub-article 13.5 and the other applicable terms of this CONTRACT the T&I CONTRACTOR shall not be held liable for and the consequences of any defects and/or deficiencies in the RELY UPON INFORMATION, and
- b) subject to the provisions of sub-article 14.3 the T&I CONTRACTOR shall not be held liable for and the consequences of latent defects in the COMPANY ITEMS,
- c) warranty for Material Group 1 T&I CONTRACTOR ITEMS (except for defective workmanship by the T&I CONTRACTOR and/or SUBCONTRACTOR and/or VENDOR) shall be limited to that provided by the VENDOR of the applicable Material Group 1 T&I CONTRACTOR ITEM as documented in the Purchase Order.
- d) Material warranties shall not apply to normal wear and tear, nor to damage proven to be caused by a third party, nor to proven misuse by the COMPANY, unless such damage or misuse is due to acts, omissions or faulty instructions of the T&I CONTRACTOR and/or SUBCONTRACTOR and/or VENDOR,

In all cases the T&I CONTRACTOR shall be responsible for the co-ordination, communication and follow up VENDOR to rectify the defect and or deficiency, and in any

and in any and all events the T&I CONTRACTOR shall provide evidence that he has not contributed to any such defect and/or deficiency.

### 20.3 Warranty Obligations

#### 20.3.1 Repair and/or Replacement of Defects and Deficiencies

Subject to the provisions of sub-articles 20.2, when, during the WARRANTY PERIOD, any defects and/or deficiencies in the T&I WORK and/or the PLANT attributable to the T&I CONTRACTOR and/or the T&I CONTRACTOR ITEMS are observed the T&I CONTRACTOR shall, upon receipt of COMPANY's written notice, repair and/or replace and make good all damage to the PLANT and/or the T&I WORK resulting from such defects and/or deficiencies.

Such repair and/or replacement shall be performed at a time and within the period requested by the COMPANY. Such request will, having regard to the urgency of the case and the repairs(s) and/or replacement shall be performed in such a manner as to minimize interruption in the use / operation of the PLANT and a minimum of disruption to COMPANY's operations on the SITE.

Such repair and/or replacement shall be subject to approval by the COMPANY and shall be at T&I CONTRACTOR's sole cost, expense and risk including any and all costs and expenses with regard to investigation, redesign, search, dismantling, removal from the SITE, transportation, repair/ replacement, re-installation and re-testing.

#### 20.3.2 Repairs and/or Replacement for Similar Items of Equipment

If, at any time during the WARRANTY PERIOD, repairs and/or replacements are made pursuant to article 20 on any T&I CONTRACTOR ITEMS for which similar T&I CONTRACTOR ITEMS exist in the PLANT and which are submitted to similar operating conditions, the T&I CONTRACTOR shall when instructed by the COMPANY, and at his own expense, inspect all such items and shall repair or replace them unless the T&I CONTRACTOR can demonstrate that such items are not likely to present the same defect and deficiency when submitted to the operating conditions set forth in this CONTRACT.

#### 20.3.3 Repair and/or Replacement by Others

In case of the T&I CONTRACTOR's failure to diligently and satisfactorily carry out such repair and/or replacement as directed by the COMPANY, and/or in case of emergency or urgency, the COMPANY shall have the right to have repair, and/or replacement performed by other contractor(s).

Such recourse shall not relieve the T&I CONTRACTOR from his warranty obligations under this CONTRACT and the costs and expenses of such interventions shall be charged to the T&I CONTRACTOR.

However, the T&I CONTRACTOR shall not guarantee the repair and/or replacement performed by such third parties.

#### 20.3.4 Warranties to be provided by SUBCONTRACTOR and VENDOR

The T&I CONTRACTOR shall ensure that warranties and guarantees obtained from any SUBCONTRACTOR and/or VENDOR for the benefit of the T&I CONTRACTOR shall also be for the benefit of the COMPANY and shall be

enforceable directly by the COMPANY. It being understood always that this provision shall not be construed as a restriction and or limitation of T&I CONTRACTOR's obligations or warranties or liabilities under the T&I CONTRACT.

20.3.5 Effect of the CONTRACT during Warranty Period

All appropriate CONTRACT conditions shall apply during the WARRANTY PERIOD and in particular while the T&I CONTRACTOR fulfils his obligations to repair and/or replacement under the present provisions.

20.4 WARRANTY PERIOD

20.4.1 Initial WARRANTY PERIOD for a PHASE

Without prejudice to any other warranties and guarantees set forth in this CONTRACT and subject to the exceptions in sub-article 20.2, the T&I CONTRACTOR shall make good and indemnify the COMPANY against any defects and/or deficiencies in the T&I WORK and/or in the PLANT attributable to the T&I CONTRACTOR, SUBCONTRACTOR and/or VENDOR for an initial WARRANTY PERIOD, on a PHASE by PHASE basis and ending eighteen (18) months after the effective date of the last HANDOVER CERTIFICATE for the relevant PHASE.

20.4.2 Extension of the WARRANTY PERIOD

If the T&I CONTRACTOR repairs, replaces or renews any portion of the PLANT because of defects and/or deficiencies in the T&I WORK and/or in the PLANT components and related items attributable to the T&I CONTRACTOR, SUBCONTRACTOR and/or VENDOR, the provisions of this sub-article 20.4.2 shall apply to the portion of the PLANT so repaired replaced or renewed until eighteen (18) months from the date of the COMPANY's acceptance of such repaired replaced or renewed T&I WORK.

20.4.3 Warranty Extensions for PLANT Stoppages

The WARRANTY PERIOD for the PLANT shall be adjusted and extended on a PHASE by PHASE basis by a duration equivalent to that during which operations are ceased to allow repairs, replacements or renewals performed under the foregoing warranty obligations.

20.4.4 Warranties in the Event of Termination and/or Taken Over

Should this CONTRACT be terminated before the HANDOVER is achieved for the related EPC WORK for a PHASE for which a NOTICE TO PROCEED has been issued or if the COMPANY exercises take-over rights before the last HANDOVER CERTIFICATE for a PHASE then the WARRANTY PERIOD for completed parts of the PLANT and/or the T&I WORK taken over shall start from the date of such termination or take-over and shall be valid for eighteen (18) months as extended for any rework and/or time of PLANT stoppages to allow rework on such completed parts of the PLANT and/or the T&I WORK as provided for under sub-articles 20.4.2 and 20.4.3.



#### 20.4.5 Limit on Duration of WARRANTY PERIODS

The WARRANTY PERIOD for a PHASE as may have been extended for repair and/or replacement and/or operational stoppages, shall be limited to a maximum duration of twenty-four (24) months after the effective date of the last PROVISIONAL ACCEPTANCE CERTIFICATE for such PHASE.

The expiry of the WARRANTY PERIOD as aforesaid shall not affect any residual period of warranty stipulated with respect to painting warranties and other warranties that survive beyond the effective date of the FINAL ACCEPTANCE CERTIFICATE.

#### 20.5 Further Assistance of the T&I CONTRACTOR

After expiry of a WARRANTY PERIOD, the T&I CONTRACTOR shall nonetheless continue to assist the COMPANY for a period of two (2) years for the enforcement by the COMPANY against VENDOR of remedies available to the COMPANY at law under latent defect liability.

### **Article 21 FINAL ACCEPTANCE CERTIFICATES**

#### 21.1 Procedure for Issue of FINAL ACCEPTANCE CERTIFICATES

FINAL ACCEPTANCE CERTIFICATES shall be issued on a PHASE by PHASE basis.

The COMPANY shall issue each FINAL ACCEPTANCE CERTIFICATE for a PHASE within sixty (60) days of a request from the T&I CONTRACTOR for the COMPANY to do so, provided that:

- a) the last PROVISIONAL ACCEPTANCE CERTIFICATE for the PHASE is issued by the COMPANY, and
- b) the CONTRACTOR has submitted and acquired the approval from the COMPANY of the FINAL DOCUMENTATION for the PHASE, and
- c) the WARRANTY PERIOD for the PHASE has expired, and
- d) if required by the COMPANY, a last inspection of the PLANT comprising the PHASE has been satisfactorily conducted, and
- e) the T&I CONTRACTOR has duly complied with all his obligations under this CONTRACT and otherwise for such PHASE, and
- f) the Final Assessment Procedure as per sub-article 32.6.1 and 32.6.2 applicable for the T&I WORK for the PHASE has been satisfactorily completed, and
- g) the FINAL ACCOUNT CERTIFICATE for the PHASE is submitted by the T&I CONTRACTOR and is agreed by the PARTIES.

For clarity, the COMPANY shall not be obliged to deliver the FINAL ACCEPTANCE CERTIFICATE for a PHASE until all the foregoing conditions are complied with by the T&I CONTRACTOR.

#### 21.2 Effective Date of FINAL ACCEPTANCE CERTIFICATES

The FINAL ACCEPTANCE CERTIFICATE for each PHASE shall state the date on which the conditions altogether in sub-article 21.1 have been fulfilled for the PHASE and shall be effective from such date. FINAL ACCEPTANCE CERTIFICATES shall be in the format as per ANNEX-9 hereto.

21.3 Continuing Obligations of T&I CONTRACTOR

FINAL ACCEPTANCE shall not release the T&I CONTRACTOR from the obligations resulting from this CONTRACT which expressly or by their nature extend beyond and survive such FINAL ACCEPTANCE.

**Article 22 CHANGE ORDERS**

Subject to the CONTRACTOR's rights and obligations under the CONTRACT the COMPANY shall have the right at any time to modify (by addition, deletion, substitution or any other alteration) in full or in part any requirement of this CONTRACT pertaining to the T&I WORK, the performance of the T&I WORK, and/or the PLANT, including :

- a) the scope of the T&I WORK
- b) requirements pertaining to CONTRACTOR ITEMS,
- c) requirements pertaining to COMPANY ITEMS (if any),
- d) requirements pertaining to WORKSITES and/or WORK Locations,
- e) requirements pertaining to CONSTRUCTION EQUIPMENT,
- f) COMPLETION DATES and/or Key Dates,
- g) the sequence and/or timing of T&I WORK and the latest APPROVED version of any T&I Detailed Work Time Schedule,
- h) any other requirement of this CONTRACT.

The foregoing being singularly referred as "modification" and collectively referred to as "modifications", as the context may require. The foregoing is without restriction and/or limitation of the COMPANY's other rights under this CONTRACT and at law.

For clarity, any and all instructions by the COMPANY with regard to compliance by the T&I CONTRACTOR and/or any SUBCONTRACTOR or VENDOR with the terms and/or requirements of this CONTRACT as may have been modified by CHANGE ORDER, and/or which are issued as per sub-article 15.7 or with regard to EPC and T&I Interfaces and related actions and/or with regard to the exercise of COMPANY's rights under this CONTRACT or at law then such instructions shall not be considered as a modification and/or act or omission of the COMPANY, its PERSONNEL or the COMPANY OTHER CONTRACTORS.

22.1 COMPANY Initiated CHANGE ORDERS

The COMPANY may either:

- a) request the T&I CONTRACTOR for a Change Order Proposal which shall be prepared, submitted, reviewed, clarified and resolved as per the requirements of Exhibit G Annex-4 (Change Order Procedure) and the other applicable terms and requirements of this CONTRACT, or
- b) instruct the T&I CONTRACTOR to proceed with a modification by means of a Work Instruction in which case the T&I CONTRACTOR's rights to a CHANGE ORDER shall be as stated in sub-article 8.4.

The T&I CONTRACTOR shall not proceed with a COMPANY initiated modification unless in possession of a CHANGE ORDER signed by the COMPANY and/or Work Instruction signed by the COMPANY.

## 22.2 T&I CONTRACTOR initiated CHANGE ORDER

22.2.1 Upon the occurrence of an event which affects any or all of the T&I WORK, the performance of the T&I WORK, the PLANT and/or a required COMPLETION DATE as may have been extended by CHANGE ORDER and provided the event is not the subject of a COMPANY initiated CHANGE ORDER and further provided that the T&I CONTRACTOR can demonstrate that:

- a) the event is solely due to an act and/or omission by the COMPANY, its PERSONNEL or COMPANY OTHER CONTRACTORS, and
- b) it could not have been foreseen by an experienced contractor, and
- c) it would modify the scope of the T&I WORK and/or the performance of the T&I WORK and/or the CONTRACT PRICE and/or delay the achievement of a required COMPLETION DATE and/or Key date, or
- d) if the T&I CONTRACTOR is otherwise entitled to a CHANGE ORDER under the terms of this CONTRACT,

the T&I CONTRACTOR may request a CHANGE ORDER subject to and in accordance with articles 15, 22 and Exhibit G Annex-4, (Change Order Procedure) and the other applicable terms and requirements of this CONTRACT.

22.2.2 In the event of FORCE MAJEURE as provided for in sub-article 15.5 g), the T&I CONTRACTOR may similarly request a CHANGE ORDER but in such a case the T&I CONTRACTOR shall only be entitled to an Extension of Time.

22.2.3 In the event of damage or loss to the RESULT OF THE WORK caused by the act and/or omission by any THIRD PARTY (such term as defined in article 36) and occurring on or between the WORKSITE as provided in sub-article 15.5 h), the T&I CONTRACTOR, subject to the provisions of articles 36 to 44, may also similarly request a CHANGE ORDER, but in such a case shall only be entitled to an Extension of Time unless the provisions of articles 36 to 44 also allow financial compensation to the T&I CONTRACTOR.

22.2.4 For each and every request for a CHANGE ORDER made pursuant to any of, sub-articles 22.2, the T&I CONTRACTOR shall:

- a) notify the COMPANY of each request for a CHANGE ORDER at the earliest opportunity and in any event no later than ten (10) working days from the first occurrence of the event giving rise to each request, and
- b) prepare and submit a fully developed and comprehensive Change Order Proposal no later than forty-five (45) days from the date of a single occurrence event and in the case of continuing events no later forty-five days (45) days from the end of the continuing event.

All notifications of requests for CHANGE ORDER and Change Order Proposals shall be prepared, submitted, reviewed clarified and resolved in accordance with the requirements of Exhibit G Annex-4 and the other applicable terms and requirements of this CONTRACT.

If the T&I CONTRACTOR fails to notify the COMPANY of a request for a CHANGE ORDER within the time limit stated in sub-article 22.2.4 a) the COMPANY shall have the right to reject such request and the T&I

CONTRACTOR shall not be entitled to any CLAIM based on the occurrence of the event.

Likewise if the T&I CONTRACTOR fails to submit a Change Order Proposal within the time limit stated in sub-article 22.2.4 b) or such other period as the COMPANY may agree then the COMPANY shall have the right to reject the Change Order Proposal and the T&I CONTRACTOR shall not be entitled to any CLAIMS based on the occurrence of such incident(s) and/or event(s) that are the subject matter of the Change Order Proposal.

The foregoing is without limitation or restriction to the T&I CONTRACTOR's obligations under sub-article 15.4 (Notification of incidents and/or events affecting the progress of the T&I WORK).

22.2.5 Unless otherwise agreed to by the COMPANY REPRESENTATIVE, the T&I CONTRACTOR shall not be entitled to any additional payment prior to receipt of a CHANGE ORDER signed by the COMPANY REPRESENTATIVE.

## 22.3 Adjustments due to CHANGE ORDER

### 22.3.1 Price Adjustment

Effects on the CONTRACT PRICE shall be evaluated by the T&I CONTRACTOR in accordance with the requirements of this CONTRACT.

The T&I CONTRACTOR shall give preference in priority as follows:

- a) to a lump sum price adjustment based on the CONTRACT PRICE lump sum breakdowns set out in Exhibit B and calculated by analogy and interpolation.
- b) When the above procedure is not applicable, unit rates, for separate parts of the T&I WORK as set out in Exhibit B, or mutually agreed detailed unit prices calculated there from by analogy or interpolation shall be used.
- c) In such a case, the variations of quantities involved shall be determined by difference between the new quantities and the previous corresponding quantities, evidenced by supporting documents agreed by both PARTIES.
- d) The T&I CONTRACTOR shall provide the COMPANY with copies and the opportunity and access to check said quantities comparisons prepared by the T&I CONTRACTOR.
- e) When remuneration on a lump sum or unit rate basis is not applicable, time rates (daily and hourly rates) shall be considered.
- f) In such a case, the T&I CONTRACTOR shall have the obligation to submit for approval any expense to be incurred in relation to the considered change and for each day of the performance of the change all and any measurement sheets with all the components involved.
- g) When remuneration on a time rates (daily and hourly rates) is not applicable the evaluation shall be based on a reimbursable "cost plus fee" basis, or cost only basis, in the manner as set out in Exhibit B, it being understood that reimbursements shall be made on presentation of satisfactory justification with appropriate supporting documents.

Notwithstanding the order of priority stated above in this sub-article 22.3.1, the COMPANY shall have the right to specify the method of evaluation for a

CHANGE ORDER, or the parts thereof, by selecting either of the following methods; lump sum price adjustment, unit rates, time rates, cost or cost plus fee, in full or part for a CHANGE ORDER and/or the respective parts thereof as the COMPANY may at its sole discretion and decision consider appropriate.

Payment conditions shall be specific for each CHANGE ORDER and determined by reference to the CONTRACT conditions.

22.3.2 WORK TIME SCHEDULE Adjustment

The adjustment of the WORK TIME SCHEDULE and/or the COMPLETION DATE associated to any CHANGE ORDER shall be calculated in accordance with the provisions of article 15.

22.3.3 No CLAIMS for CHANGE ORDER

Each CHANGE ORDER shall be deemed to take into account the full and final effects of the considered Modifications required COMPLETION DATES as may have been modified by CHANGE ORDER and the CONTRACT PRICE.

The T&I CONTRACTOR hereby agrees to make no further CLAIMS for any other consequences of CHANGE ORDER whether directly or indirectly resulting therefrom at the time of the CHANGE ORDER or thereafter.

22.4 Differences and Disputes Concerning CHANGE ORDER

If there is any dispute (including any controversy, CLAIM or difference) concerning a Work Instruction and/or CHANGE ORDER, and irrespective of if the T&I CONTRACTOR has notified such a dispute pursuant to article 54 or not, the T&I CONTRACTOR shall immediately proceed with the T&I WORK as directed in writing by the COMPANY. The timely and proper performance of the T&I WORK in the manner as directed by the COMPANY shall not be interrupted, stopped, delayed or slowed due to any dispute between the PARTIES.

22.5 CHANGE ORDER as part of the CONTRACT

Each CHANGE ORDER shall not vitiate or invalidate this CONTRACT, and, unless otherwise specified in CHANGE ORDER, all provisions of this CONTRACT shall apply to CHANGE ORDER.

**Article 23 APPLICABLE LAWS**

23.1 Compliance with APPLICABLE LAWS

23.1.1 During the performance of this CONTRACT, including WARRANTY PERIODS and without prejudice to the provisions of article 51 the T&I CONTRACTOR shall observe, be bound by and comply in all respects with all APPLICABLE LAWS which are or may become applicable during the performance of the CONTRACT.

23.1.2 The T&I CONTRACTOR shall give all notices and furnish any bonds, deposits and securities required by official authorities to permit the performance of the T&I WORK.

23.1.3 The T&I CONTRACTOR shall not take or permit to be taken any action on behalf of the COMPANY, in respect of this CONTRACT or the matters which are

subject of this CONTRACT that would expose the COMPANY to any liability or penalty as a result of failure to comply with such APPLICABLE LAWS.

23.1.4 The T&I CONTRACTOR shall indemnify, defend and hold harmless the COMPANY against all and any CLAIMS, arising out of or in connection with any non-compliance with APPLICABLE LAWS by the T&I CONTRACTOR INDEMNIFIED PARTIES and the T&I CONTRACTOR GROUP. The indemnity obligation shall survive the termination or expiration of the CONTRACT.

23.1.5 The COMPANY may be considered as a government agency under anti-corruption laws of Thailand, the T&I CONTRACTOR where applicable shall comply with such laws. It is the sole responsibility of the T&I CONTRACTOR to familiarize himself and fully comply with the laws.

23.1.6 The T&I CONTRACTOR shall ensure that SUBCONTRACTOR and his/their PERSONNEL and VENDOR and his/their PERSONNEL shall be bound by, and comply with, the obligations set in this sub-article 23.1.

23.1.7 In the event that the T&I CONTRACTOR breaches any of his obligations under this sub-article 23.1, the COMPANY shall, in addition to its other rights under the CONTRACT and at laws, have the right to terminate the CONTRACT pursuant to the provisions of article 48.

23.2 Compliance with COMPANY Regulations and Procedures

The T&I CONTRACTOR shall observe and comply with all COMPANY's and EXISTING OPERATORS's requirements, regulations and procedures with regard to the performance of T&I WORK including at WORKSITES and SITES.

23.3 Obtaining Authorizations by the COMPANY

The COMPANY shall be responsible for obtaining all permits and authorizations from all local, state or national GOVERNMENT authorities or public services undertakings that can only be obtained by the COMPANY, including permits and authorizations which are necessary for the execution of the T&I WORK at the SITE, including SITE access and of the right to construct and operate the PLANT on the SITE.

The T&I CONTRACTOR shall, however, remain responsible for providing the COMPANY with any necessary documentation required by the COMPANY in support of timely applications for such permits and authorizations.

23.4 Obtaining Authorizations by the T&I CONTRACTOR

The T&I CONTRACTOR shall be responsible for obtaining and maintaining at his own cost all licenses, visas, permits, clearances, certifications, governmental or administrative authorizations necessary for the performance of his obligations hereunder unless expressly stated elsewhere in the CONTRACT as being obtained by the COMPANY.

On COMPANY's request, the T&I CONTRACTOR shall produce all relevant documents and certificates. The COMPANY shall have no liability whatsoever in respect thereof. However, should it be necessary for T&I CONTRACTOR's applications, the COMPANY shall provide such certificates as it is empowered to issue, it being understood that the T&I CONTRACTOR shall remain liable to inform the COMPANY with sufficient advance notice of each and every such requirement.

The COMPANY shall not have any obligation to procure, or to assist in the procurement, or to bear any cost or expense relating to entry visas, resident and work permits and any applicable licenses for T&I CONTRACTOR's PERSONNEL.

### 23.5 Modification of the APPLICABLE LAWS

23.5.1 Subject to the exceptions set out in sub-article 23.5.2, the COMPANY shall compensate the T&I CONTRACTOR in respect of an increase, if any, in the cost of performing the T&I WORK which shall arise out of any new law and/or regulation, or amendment (including a change in the interpretation or application thereof) to any APPLICABLE LAWS, of the GOVERNMENT of the country in which the SITE is located, that are enacted and become effective after the EFFECTIVE DATE and which the T&I CONTRACTOR could not have reasonably been aware of prior to the EFFECTIVE DATE ("Change of Law").

Provided such increase in the cost of performing the T&I WORK is properly supported by documentation satisfactory to the COMPANY and the T&I CONTRACTOR shall have requested COMPANY's approval before making any related commitment. Any decrease arising from Change of Law shall conversely result in a corresponding decrease in the CONTRACT PRICE.

In addition to the above, T&I CONTRACTOR shall be entitled to a request a CHANGE ORDER for an extension of the WORK TIME SCHEDULE, including the COMPLETION DATE(S) where appropriate, to the extent that such modification of law and/or regulation causes unavoidable delay to a required COMPLETION DATE.

23.5.2 Notwithstanding the provision of sub-article 23.5.1, the T&I CONTRACTOR shall bear the effects of any changes in taxes assessed against profits, dividends, corporate income, personal income of employees, Customs Duties and Import Taxes on the personal effects of employees, and the effects of any fluctuations or decisions of any authority regarding exchange rates, as well as any expenses (including taxes) resulting from sub-contracting and expenses resulting from any T&I CONTRACTOR's commitment for which approval should have been sought under sub-article 23.5.1.

### 23.6 Customs Regulations and Procedures

#### 23.6.1 Responsibility for Customs Clearance

Subject to sub-articles 23.6.2 and 23.6.3 the T&I CONTRACTOR is responsible for obtaining timely customs clearance and for compliance with all requirements and procedures of GOVERNMENT, Customs Authorities, APPLICABLE LAWS and the terms and requirements of this CONTRACT, for the importation, exportation, or re-exportation of:

- a) RESULT OF THE WORK,
- b) CONTRACTOR ITEMS,
- c) CONSTRUCTION EQUIPMENT including MARINE SPREAD,
- d) COMPANY ITEMS under CONTRACTOR's custody,
- e) PLANT components, any part thereof and related items,
- f) Personal effects, belongings, equipment, tools of PERSONNEL

- g) anything else belonging to or rented by VENDORS and /or SUBCONTRACTORS and VENDORS
- h) in general, anything required and/or necessary for repair and/or replacement of loss and/or damage and/or the repair or replacement of defects and deficiencies in the PLANT.
- i) anything else required and/or necessary for the performance of the T&I WORK so far as it is the CONTRACTOR's obligation to provide.

Items a) to i) are referred to singularly and collectively as "Imported Items".

#### 23.6.2 Customs Clearance (Not in the Country of the Location of the SITE)

The T&I CONTRACTOR shall be fully responsible for any and all Customs Clearance operations for importation, re-export and export for in connection with the performance of the T&I WORK in countries which the SITE is not located.

The T&I CONTRACTOR shall prepare and issue all documents required for importation, temporary importation, exportation and/or re-exportation of Imported Items and shall submit such documents in due time to the relevant Customs Authorities and others as applicable and shall do all things whatsoever required and/or necessary to obtain timely Customs Clearance. All related costs and expenses shall be borne by the T&I CONTRACTOR.

#### 23.6.3 Customs Clearance (Country of the SITE)

The T&I CONTRACTOR is responsible for obtaining timely customs clearance and for compliance with all requirements and procedures of GOVERNMENT, Customs Authorities, APPLICABLE LAWS and the terms and requirements of this CONTRACT, for the importation, exportation, re-exportation of Imported Items into and from the country of the SITE.

- a) If the T&I CONTRACTOR has the import duty/VAT exemption under PETROLEUM ACT and is thus able to import, re-export and export Imparted Items into / from the Kingdom of Thailand free of Thai Customs Duties and Import Taxes, the T&I CONTRACTOR shall import, re-export and export Imparted Items under the name of the T&I CONTRACTOR.
- b) However, if the T&I CONTRACTOR has no import duty/VAT exemption under PETROLEUM ACT he shall remain fully responsible as aforesaid but shall import, re-export, export Imported Items in accordance with Exhibit G Annex-3 requirements.

The CONTRACTOR shall under its own responsibility, risk, cost and expense, do all things necessary and shall prepare, issue and submit all documents required in the name of the COMPANY, in due time to the COMPANY to obtain the benefit of the exception of Custom Duties and Import Taxes levied in the Kingdom of Thailand.

The COMPANY shall provide assistance only for the submission of documents to GOVERNMENT and/or Customs Authorities in the Kingdom of Thailand.

The CONTRACTOR shall ensure all applications and documents are submitted expeditiously and sufficiently in advance to ensure customs



clearance is obtained in a timely manner and well before dates needed for the performance of the T&I WORK.

The COMPANY shall not be liable for any delay, costs or expenses or impacts arising from and or in connection with the foregoing.

The CONTRACTOR shall properly plan and incorporate required and/or necessary time periods for Customs Clearance Process, Customs Authority and GOVERNMENTAL approvals in the applicable T&I Detailed Work Time Schedule and WORK TIME SCHEDULE.

The T&I CONTRACTOR shall indemnify, defend and hold harmless the COMPANY from the consequences of any errors or omissions in documents prepared and/or submitted by the T&I CONTRACTOR, resulting in failure of GOVERNMENT and/or Customs Authorities to provide timely authorization(s) and/or carry out inspection(s) as a result of such error or omission.

#### 23.6.4 Co-ordination and Interface with Customs

The T&I CONTRACTOR shall co-ordinate and liaise with GOVERNMENT and Customs Authorities in order to implement the importation / exportation procedure in the most efficient manner. Under his own responsibility and as far as applicable, the T&I CONTRACTOR shall request Customs inspection with sufficient advance notice.

The T&I CONTRACTOR shall assist Customs Authorities in such inspection and shall transmit inspection reports to Customs Authorities responsible for issue of Customs clearance documents.

#### 23.7 Import/Export License requirements

The T&I CONTRACTOR shall be responsible for identifying if any import/export license is required in any places where the T&I WORK is to be performed for any parts the T&I WORK, CONTRACTOR ITEMS, CONSTRUCTION EQUIPMENT and/ COMPANY ITEMS (if any) under T&I CONTRACTOR's care, custody and control. If compulsory, the T&I CONTRACTOR shall obtain such import/export license from the relevant authorities in a timely manner.

### **Article 24 Safety, Security, Health and Environment (SSHE) Requirements for T&I WORK**

The T&I CONTRACTOR shall, at all locations where T&I WORK is performed, at his own cost and expense, ensure SSHE management is implemented in a timely and pro-active and effective manner in accordance with the requirements of Exhibit A, Exhibit K, Exhibit L, APPLICABLE LAWS, IOGP rules and guidelines and the other terms and requirements of this CONTRACT. The respective rights and obligations of the PARTIES with regard to SSHE management and SSHE management activities shall be as stated in this CONTRACT.

### **Article 25 CONTRACTOR's PERSONNEL**

#### 25.1 The T&I CONTRACTOR's Responsibilities

25.1.1 The T&I CONTRACTOR shall provide sufficient competent, experienced and suitably qualified and where required certified, PERSONNEL at all times to ensure the timely and correct performance and completion of the T&I WORK in

accordance with this CONTRACT and the WORK TIME SCHEDULE as may have been modified by CHANGE ORDER.

25.1.2 The T&I CONTRACTOR shall ensure, at his sole cost that all T&I CONTRACTOR's PERSONNEL at all times during the performance of this CONTRACT:

- a) are suitably qualified, trained, experienced, certified to the extent required and are competent for the tasks that they are required to perform,
- b) are medically fit for the tasks that they are required to perform;
- c) read, write and speak fluent English,
- d) will exercise due skill, care and diligence in performing the T&I WORK,
- e) will not behave in such a way as to prejudice the interests or reputation of the COMPANY GROUP, and
- f) will cooperate with COMPANY or COMPANY OTHER CONTRACTOR to secure optimal working efficiency.

The requirement in sub-article 25.1.2 c) shall only apply to Supervisor and above.

25.1.3 The T&I CONTRACTOR shall provide the COMPANY with documentary evidence of compliance with the requirements of sub-article 25.1.2 upon request.

## 25.2 KEY PERSONNEL

### 25.2.1 Generally

T&I CONTRACTOR KEY PERSONNEL shall be permanent staff and full-time employees of T&I CONTRACTOR and shall be qualified, trained, experienced, certified to the extent required and competent in the field and position for which they are intended.

Likewise, SUBCONTRACTOR KEY PERSONNEL shall be permanent staff and full-time employees of the SUBCONTRACTOR and shall be fully qualified and experienced in the field and position for which they are intended

### 25.2.2 Approval of KEY PERSONNEL

The persons identified as KEY PERSONNEL in Exhibit K are approved by the COMPANY as KEY PERSONNEL. However, if no name is stated against a KEY PERSONNEL position in Exhibit K the T&I CONTRACTOR shall nominate suitably qualified, trained, experienced, certified to the extent required and competent PERSONNEL and shall submit a fully detailed curriculum vitae for approval by the COMPANY.

If and when approved by the COMPANY such PERSONNEL shall be deemed KEY PERSONNEL for the applicable position listed in Exhibit K.

### 25.2.3 Removal and/or Replacement of KEY PERSONNEL

The T&I CONTRACTOR shall not remove or change any KEY PERSONNEL except in the following cases:

- a) serious illness or injury or death of such KEY PERSONNEL or their immediate family, or

- b) definitive resignation or termination employment of for misconduct, if not followed by any hiring back by the T&I CONTRACTOR or any of his AFFILIATES or SUBCONTRACTOR, or
- c) Removal and/or removal and replacement of KEY PERSONNEL pursuant to sub-article 25.4, or
- d) at the request of the T&I CONTRACTOR provided that the T&I CONTRACTOR shall request permission from the COMPANY to replace the KEY PERSONNEL not less than thirty (30) days before the date of proposed substitution, the COMPANY approves the replacement and there is a sufficient handover period, such handover period shall be subject to prior approval by the COMPANY.

For removal and/or replacement as per sub-article 25.2.3 a), b) and/or d) the T&I CONTRACTOR shall provide full justification and substantiation and the names and resumes of proposed substitute KEY PERSONNEL for approval and shall organize a sufficient transition period between outgoing and incoming KEY PERSONNEL, such period shall be subject approval by the COMPANY.

The COMPANY reserves the right to interview proposed replacement KEY PERSONNEL.

25.3 Prevention of Disorderly Conduct

At all times during the performance of the T&I WORK, the T&I CONTRACTOR shall take all necessary precautions to prevent any unlawful or disorderly conduct by or amongst his PERSONNEL and/or the PERSONNEL of SUBCONTRACTOR.

25.4 Replacement of PERSONNEL at the COMPANY's Request

25.4.1 The COMPANY may, acting reasonably, object to the T&I CONTRACTOR's engagement of any person as T&I CONTRACTOR's PERSONNEL and/or SUBCONTRACTOR's PERSONNEL and may direct the T&I CONTRACTOR to discontinue (or vary) the use of that person in performing this CONTRACT.

25.4.2 The T&I CONTRACTOR shall promptly comply with COMPANY's direction at his sole cost and provide a suitable replacement for that person within twenty-four (24) hours (or such longer period as the COMPANY may agree).

25.4.3 If the T&I CONTRACTOR's PERSONNEL and/or SUBCONTRACTOR's PERSONNEL:

- a) becomes ill or injured, and/or
- b) commits serious misconduct, serious error, negligence, and/or
- c) does not comply with the APPLICABLE LAWS or the COMPANY's rules and regulations relating to safety, security, health and environment, and/or
- d) commits any acts that jeopardize the relations between the COMPANY and government,

then the T&I CONTRACTOR shall immediately replace, at his sole cost and expense, such PERSONNEL whether requested by the COMPANY or not.

25.4.4 Replacement PERSONNEL shall have the required competencies, experience and qualifications and where required be certified.

25.4.5 All costs and expenses related to such replacement shall be for T&I CONTRACTOR's account.

25.5 Demobilization of PERSONNEL

The T&I CONTRACTOR shall demobilize from any WORKSITE (including SITE), PERSONNEL involved in the performance of the T&I WORK, including PERSONNEL of SUBCONTRACTOR, only in accordance with approved organization charts and demobilization schedules. Such demobilization schedules shall take account of the actual progress of the T&I WORK.

25.6 PERSONNEL of the COMPANY OTHER CONTRACTORS

The T&I CONTRACTOR shall not engage PERSONNEL of the COMPANY OTHER CONTRACTORS working on the SITE without prior approval from the COMPANY and shall obtain a similar commitment from SUBCONTRACTOR.

25.7 Compliance with APPLICABLE LAWS

The T&I CONTRACTOR shall ensure that the T&I CONTRACTOR's PERSONNEL, SUBCONTRACTOR's PERSONNEL, VENDOR's PERSONNEL and where applicable SUPPLIER PERSONNEL comply with all APPLICABLE LAWS including immigration laws and where required are in possession of a valid work permit at all times during the performance of the T&I WORK. When requested, details of such work permits shall be submitted to the COMPANY prior to such PERSONNEL being engaged in the T&I WORK.

**Article 26 CONSTRUCTION EQUIPMENT**

26.1 Standards of the CONSTRUCTION EQUIPMENT

26.1.1 Generally

The T&I CONTRACTOR shall provide all T&I CONSTRUCTION EQUIPMENT for the T&I WORK and also that required and necessary to support the performance of the EPC WORK in the manner described in Exhibit A Annex-10 (EPC and T&I Interfaces) for Load Out and Ready for Transport Operations.

26.1.2 Requirements for T&I CONSTRUCTION EQUIPMENT

T&I CONSTRUCTION EQUIPMENT shall be fit for the use and purpose it is intended, shall be maintained at all times in good operating condition with appropriate and uninterrupted valid certification for the duration of the applicable T&I WORK activities in accordance with APPLICABLE LAWS and the terms and requirements of this CONTRACT.

Upon COMPANY's request, the T&I CONTRACTOR shall provide the COMPANY with the technical characteristics/ details of T&I CONSTRUCTION EQUIPMENT and the operating and maintenance conditions of items of the T&I CONSTRUCTION EQUIPMENT, as well as the names of the owners of same and copies of certification.

26.1.3 Mobilization and Demobilization of T&I CONSTRUCTION EQUIPMENT

The T&I CONTRACTOR shall mobilize and maintain the T&I CONSTRUCTION EQUIPMENT in good working condition with experienced, qualified and where applicable certified PERSONNEL, together with the necessary consumables and maintenance parts for the proper and safe operation

of the T&I CONSTRUCTION EQUIPMENT and to ensure required and/or necessary availability, without mechanical and/or other breakdown for performance of T&I WORK.

The T&I CONTRACTOR shall not use any T&I CONSTRUCTION EQUIPMENT outside the limits of the manufacturer's specification and/or limitations imposed by a Certification Agency or by APPLICABLE LAWS.

The T&I CONTRACTOR shall ensure that T&I CONSTRUCTION EQUIPMENT, during its use under this CONTRACT, shall not need major repair, replacement or overhaul. The T&I CONTRACTOR shall immediately repair and/or replace defective T&I CONSTRUCTION EQUIPMENT and shall be responsible for all and any delays due the breakdown, loss of use, repair and/or replacement of T&I CONSTRUCTION EQUIPMENT.

T&I CONSTRUCTION EQUIPMENT shall not be demobilized until the T&I WORK activities for which the T&I CONSTRUCTION EQUIPMENT was mobilized is completed.

26.2 Certification for Cranes, Lifting Equipment and Pressure Vessels

At all times during the performance of the T&I WORK, the T&I CONTRACTOR shall comply with APPLICABLE LAWS and shall ensure certification and other requirements for T&I CONSTRUCTION EQUIPMENT (cranes, lifting equipment and pressure vessels, etc.) are complied with. Certification for T&I CONSTRUCTION EQUIPMENT shall be valid for minimum period of three (3) months following the last planned date of operation and if the COMPANY so requests, the T&I CONTRACTOR shall provide all relevant documents and certificates as proof thereof.

26.3 COMPANY's Right to Inspect T&I CONSTRUCTION EQUIPMENT

The COMPANY shall have the right to inspect any T&I CONSTRUCTION EQUIPMENT and require replacement of any T&I CONSTRUCTION EQUIPMENT found unsafe or defective in any other respect, it being understood that any failure of the COMPANY REPRESENTATIVE to inspect or reject any defective T&I CONSTRUCTION EQUIPMENT shall not relieve the T&I CONTRACTOR of any of his obligations under this CONTRACT.

At all times prior to and during the performance of the T&I WORK, the T&I CONTRACTOR shall allow the COMPANY REPRESENTATIVE and/or its delegates to have free and safe access to any T&I CONSTRUCTION EQUIPMENT for inspection, or for the purposes of safety, security, health and environmental aspects.

26.4 MARINE SPREAD

KEY VESSELS shall comprise the vessel designated as such in Exhibit K.

KEY VESSEL shall not be changed, removed or substituted except in the following cases as can be satisfactorily evidenced by supporting documents:

- a) rejection of a KEY VESSEL by the COMPANY,
- b) serious damage and /or declassification and /or decertification of a KEY VESSEL, or
- c) definitive withdrawal of a KEY VESSEL from the market by the ultimate vessel owner or charterer, provided such withdrawal is not followed by any hiring back by the T&I CONTRACTOR or any of his AFFILIATES or SUB CONTRACTOR, or

- d) replacement by an equivalent (technically and otherwise) KEY VESSEL subject to the conditions herein and provided prior written APPROVAL is obtained from the COMPANY before such replacement.

Should either of sub-articles 26.4 b) and 26.4 c) occur the T&I CONTRACTOR shall notify the COMPANY, provide details and shall submit full substantiation and supporting documents in a timely manner.

For sub-article 26.4 d), the T&I CONTRACTOR shall propose such replacement KEY VESSEL (if any) and provide details together with full substantiation and supporting documents no later than three (3) months after the EFFECTIVE DATE for which a replacement KEY VESSEL will mobilize for the performance of the WORK. The COMPANY shall have the right to refuse to APPROVE the proposed replacement KEY VESSEL without justifying such refusal.

If the T&I CONTRACTOR change, remove or substitute KEY VESSEL in violation of these provisions, the COMPANY shall be entitled to apply liquidated damages as more fully set out under sub-article 34.3.

The T&I CONTRACTOR shall ensure that all and any parts of the MARINE SPREAD shall at all times be kept in full conformity with all APPLICABLE LAWS and in possession of valid certification issued by an approved certifying authority. All and any parts of the MARINE SPREAD shall not need dry docking for the actual duration of the offshore campaign unless otherwise is stipulated in Exhibit C. Upon the COMPANY's request, the T&I CONTRACTOR shall provide all relevant documents and certificates as proof thereof.

The COMPANY shall have the right, prior to accepting the MARINE SPREAD, to make such inspection or tests thereof as it deems appropriate, which inspection shall not require however dry-docking upon presentation by the T&I CONTRACTOR of certificates covering such items as would be inspected in dry docking.

If as a result of such inspection or tests, the MARINE SPREAD is found unsuitable with respect to conformity with the CONTRACT requirements, the COMPANY shall be entitled to either:

- a) accept the MARINE SPREAD, while specifying those defects which render it unsuitable; in which case the T&I CONTRACTOR shall forthwith at its own expense remedy such defects without any adjustment of the CONTRACT PRICE or extension to the WORK TIME SCHEDULE in respect of such correction; or
- b) reject the MARINE SPREAD, in which case the COMPANY shall be entitled either:
  - i) to accept the substitution of an alternative MARINE SPREAD as proposed by the T&I CONTRACTOR, in which case the T&I CONTRACTOR shall not be entitled to any adjustment of the CONTRACT PRICE or extension to the WORK TIME SCHEDULE in respect of such substitution; or
  - ii) to terminate the CONTRACT in accordance with the provisions of article 48.

## 26.5 Obligations of SUBCONTRACTOR

The T&I CONTRACTOR shall ensure the compliance of the SUBCONTRACTOR with all the provisions of article 26.

**Article 27 T&I WORK Locations**

27.1 T&I WORK Locations

The T&I CONTRACTOR undertakes to perform the T&I WORK only at such WORKSITES, WORKSHOPS and WORK Locations as the COMPANY shall approve.

27.2 T&I CONTRACTOR DOCUMENTS, Standards and Codes at T&I WORK Locations

The T&I CONTRACTOR shall provide the COMPANY REPRESENTATIVE (or his delegates), WORKSITES, WORKSHOPS and WORK Locations with access to the latest issue of all relevant standards, codes and norms referred to in this CONTRACT, the T&I CONTRACT DOCUMENTS, and a complete set of updated relevant T&I CONTRACTOR DOCUMENTS.

27.3 T&I CONTRACTOR REPRESENTATIVE

The T&I CONTRACTOR REPRESENTATIVE and/or his delegate, with appropriate delegated powers, shall be present at Engineering Offices, where and when the T&I WORK is being performed. Attendance at WORKSHOPS and other T&I WORK Locations shall be on a visiting basis unless necessary and/or required to be on a full time basis.

27.4 Access to the WORK

At all times during working hours and during all phases of the T&I WORK the T&I CONTRACTOR shall allow the COMPANY REPRESENTATIVE, and/or his delegates, free unrestricted, safe access to Engineering Offices, WORKSITES, WORKSHOPS and T&I WORK Locations, including engineering office, WORKSHOP and WORKSITE to allow the COMPANY to inspect the adequacy and sufficiency of T&I WORK Locations and/or the quality and progress of the T&I WORK and/or inspect compliance with the terms and requirements of this CONTRACT, and shall ensure similar access to premises of SUBCONTRACTOR and/or VENDOR where any T&I WORK is being or shall be performed. Provided however that such COMPANY's PERSONNEL, and/or the COMPANY OTHER CONTRACTORS shall comply with the T&I CONTRACTOR's WORKSITE and SSHE regulations as notified by the T&I CONTRACTOR.

27.5 Access to Computer Programs and Models

The T&I CONTRACTOR shall, at all times during all phases of the T&I WORK, ensure the COMPANY REPRESENTATIVE or his delegates, have free and full access during working hours to all the computer programs and models utilized for the performance of the T&I WORK.

**Article 28 Access to SITE, Temporary Facilities and Cleaning Up.**

28.1 Access to SITE

The T&I CONTRACTOR and other members of the CONTRACTOR GROUP shall be allowed access to each applicable SITE for the performance of T&I WORK in accordance with the applicable approved T&I Detailed Work Time Schedule but in all cases subject to access and other CONSTRAINTS and compliance with EXISTING OPERATORS' applicable rules, requirements, regulations and procedures, APPLICABLE LAWS and the other terms and requirements of this CONTRACT. In the event of CONFLICT between the foregoing the most stringent shall apply.

28.2 Mobilization/Demobilization of MARINE SPREAD to/from the SITE

The T&I CONTRACTOR shall comply with the requirements of Exhibit A and the other terms and requirements of this CONTRACT with regard to mobilization, inspection, survey and shall also comply with Marine Warranty Surveyor requirements and COMPANY instructions issued with regard to such mobilization, inspection, and survey.

Prior to any mobilization to the SITE of each and every part of the MARINE SPREAD, the T&I CONTRACTOR shall notify the COMPANY and GOVERNMENT in advance in a timely manner and shall obtain approval for entry of vessels from overseas into the waters of the Kingdom of Thailand to the extent required and/or necessary.

The T&I CONTRACTOR shall also request and/or obtain permission for entry of the MARINE SPREAD into the applicable field and vessel entry permit to the SITE, in accordance with field operator requirements, GOVERNMENT requirements, APPLICABLE LAWS and the terms and requirements of this CONTRACT.

The T&I CONTRACTOR shall not demobilize any part of the MARINE SPREAD before completion of the T&I WORK for which such portion of the MARINE SPREAD is required and the T&I CONTRACTOR has requested and the COMPANY has issued an applicable MARINE SPREAD RELEASE CERTIFICATE pursuant to sub-article 19.1.1.

It being understood that any such demobilization shall be at T&I CONTRACTOR's sole risk and any additional mobilization/demobilization thereof for any reason shall be at CONTRACTOR's expense.

28.3 Co-operation at SITE

28.3.1 Notwithstanding sub-clause 28.1 the T&I CONTRACTOR and members of the CONTRACTOR GROUP when travelling to, from and while at the SITE shall co-operate with the COMPANY, the EXISTING OPERATOR and COMPANY OTHER CONTRACTORS and comply with all applicable rules, regulations and requirements.

28.3.2 The T&I CONTRACTOR shall ensure that all T&I WORK and/or rework, repair or replacement of defects and deficiencies pursuant to sub-article 20.3 is performed a safe and expeditious manner while minimizing inconvenience / interruption to the COMPANY, EXISTING OPERATOR and COMPANY OTHER CONTRACTORS.

28.3.3 The T&I CONTRACTOR shall take all required and/or necessary measures to avoid and/or minimize any inconvenience caused to the COMPANY, the EXISTING OPERATOR, COMPANY OTHER CONTRACTORS and third parties (if any).

28.3.4 The T&I CONTRACTOR shall protect the PLANT, the Existing Facilities and/or any other items on the SITE belonging to the COMPANY, COMPANY OTHER CONTRACTORS, the EXISTING OPERATORS from possible and/or actual damage resulting from T&I CONTRACTOR's operations at a SITE.

28.4 Temporary facilities on the SITE

Prior to erecting or using on the SITE any temporary facilities including offices, workshops, stores, sanitary installations, shelters, scaffoldings and the like, the T&I CONTRACTOR shall submit a proposal to the COMPANY for review and approval. Such proposal shall



comply with the terms and requirements of this CONTRACT and shall ensure that inconvenience to the COMPANY, COMPANY Operations at the SITE and EXISTING OPERATOR Operations is minimized.

28.5 Cleaning up of the WORKSITES and T&I WORK Locations

28.5.1 Throughout the performance T&I WORK the T&I CONTRACTOR shall keep T&I WORKSITES and other T&I WORK Locations and their access, egress and surroundings tidy, clean and free from waste, debris, rubbish, surplus and scrap CONTRACTOR ITEMS, surplus and scrap COMPANY ITEMS, if any, obstructions resulting from the performance of the T&I WORK and where and if applicable the EPC WORK.

28.5.2 Upon completion of T&I WORK the T&I CONTRACTOR and except as may be provided otherwise in this CONTRACT the T&I CONTRACTOR shall ensure that WORKSITES and other WORK Locations are cleared and left in clean and safe condition in accordance with the terms and requirements of this CONTRACT and APPLICABLE LAWS.

28.5.3 If the T&I CONTRACTOR fails to satisfy the above requirements, the COMPANY shall, at any time following appropriate notification to the T&I CONTRACTOR, have the right to demand that the T&I complies with the requirements of this sub-clause 28.5 and/or perform (or have performed) clean-up operations at T&I CONTRACTOR's expense except as provided for under article 39 (SPECIAL RISKS).

28.6 Exceptions

The CONSTRAINTS and obligations resulting from the foregoing circumstances described in this article 28 are considered included in the WORK TIME SCHEDULE and the CONTRACT PRICE and in T&I Detailed Work Time Schedule except for CONTRACT PRICE adjustment for APPROVED Operational Standby as Extension of Time (if any) as per sub-article 15.5 and Exhibit B.

**Article 29** **Origin of Products and Services**

Notwithstanding the requirements of Exhibit J, to the extent practical and lawful, the CONTRACTOR shall ensure the T&I CONTRACTOR, his SUBCONTRACTOR and his VENDOR at all times give preference to local resources (including labor, materials, products, services, and equipment) that are available from within Thailand, or are rendered by Thai nationals provided that such local resources are available under comparable conditions with regard to quality, quantity, suitability, price (including transportation and taxes) and delivery conditions as similar products and services of foreign origin.

**Article 30** **CONTRACT PRICE**

30.1 CONTRACT PRICE

In consideration for the correct and proper performance and satisfactory completion of T&I WORK on a PHASE by PHASE basis the COMPANY agrees to pay the final CONTRACT PRICE for each PHASE calculated as stipulated herein, in Exhibit B and the other terms and requirements of this CONTRACT.

The T&I CONTRACTOR hereby agrees to accept the said CONTRACT PRICE as full and final compensation for the complete performance of the T&I WORK for such PHASES in full compliance with this CONTRACT.

30.2 Fixed CONTRACT PRICE

Except as may be expressly provided otherwise in Exhibit B or in any CHANGE ORDER, all rates, sums and prices stated in this CONTRACT shall be fixed and firm and not subject to any revision nor cost escalation nor any adjustment due to currency fluctuations.

30.3 Rates, Sums and Prices

Except as may be expressly stated in Exhibit B, all rates, sums and prices set out in Exhibit B or specified in CHANGE ORDER shall be deemed to be all-inclusive for the T&I WORK relative thereto completed in accordance with all CONTRACT requirements and are deemed to include:

- a) salaries, wages, allowances including overtime, bonuses, premiums and other incentive payments, holidays with pay, sick pay, graduated pensions, severance pay, contributions made to superannuation and pension funds or other retirement benefit schemes, contributions to compulsory and complementary medical and sickness schemes, welfare facilities, redundancy payment contributions, industrial training levy, personnel rotation expenses and shift premiums, and in general all burdens, contributions, insurance, taxes and payments, emoluments and expenses which T&I CONTRACTOR incurs and/or effects in respect of his PERSONNEL under applicable laws or regulations including those under statute or by agreement with national or local trade unions or under company employment policies,
- b) overheads, profits, contingencies, depreciation, head office charges, managerial and administrative expenses, all preliminaries and contract administration, financing costs and Bank expenses including Bank guarantees, transfer charges, all taxes and duties as set out in this CONTRACT, insurance premiums and deductibles, compliance with procedures, regulations and all applicable laws, cleaning up of WORKSITE, all downtime and time lost (except as expressly allowed under this CONTRACT) including breakdowns, repair time, waiting on weather or for approvals or authorizations to be obtained by T&I CONTRACTOR for the performance of the T&I WORK, co-operation with COMPANY OTHER CONTRACTORS on WORKSITE and any and all direct or indirect costs and expenses due to subcontracting, including contingencies,
- c) co-ordination and interface with the COMPANY, SUBCONTRACTOR, VENDOR, SUPPLIER, the EPC CONTRACTOR, GOVERNMENT and customs authorities, certifying entities, the COMPANY OTHER CONTRACTORS and their subcontractors and suppliers and third parties,
- d) offices and furnishings, secretarial and clerical services, materials and equipment including for drafting, office supplies and consumable, lighting, electricity, heating and air conditioning, telephone, fax, mail, electronic mail and courier services, printing and reproduction costs, computer and computer-associated costs, office and lodging accommodation, sanitary and messing facilities,
- e) services for the COMPANY use under this CONTRACT and as set out in EXHIBITS,
- f) compliance with safety requirements and regulations, supply of safety equipment, protective clothing and other protective items, safety and first aid training, medical

- care and facilities, fire-fighting equipment, emergency evacuations, all preventive measures,
- g) supply, handling and storage of all CONTRACTOR ITEMS and all materials, means, equipment, including T&I CONSTRUCTION EQUIPMENT owned or hired, tools and the like for the performance of the T&I WORK,
  - h) facilities and shops including for fabrication, storage and testing, camps, shelters, temporary works, scaffoldings and the like,
  - i) all consumables (air, gases, greases, oils, fuels, welding consumables and the like) and utilities (lighting, power, electricity, water),
  - j) maintenance, care taking, protection, safekeeping, security measures,
  - k) inspections, samples and tests, certification, documentation, controls including quality control and verifications,
  - l) all costs and expenses whatsoever related to subcontracting and Purchase Orders including all enquiries, supply, expediting and transport costs and expenses of whatsoever nature,
  - m) receipt, handling, inspection, storage, protection and installation of the COMPANY ITEMS, if any,
  - n) spare parts for commissioning and start-up operations,
  - o) labor, supervision, engineering, administrative and managerial PERSONNEL, mobilization and demobilization costs and expenses for personnel and equipment, living and hotel accommodation, meals, travel time and expenses, fares and transportation, visa fees, authorizations, approvals, permits and licenses (including for travels and missions), preparation of documents for and cost of importation and customs clearance, port charges and fees, unless expressly specified in this CONTRACT as being supplied by the COMPANY or on a reimbursable basis,
  - p) all T&I CONTRACTOR's obligations, liabilities, duties, risks under the terms and requirements of this CONTRACT, including the ones resulting from subcontracting, or as can be inferred there from, and/or relating to, or otherwise connected to the performance of the T&I WORK,

and everything else of whatsoever nature required and/or necessary for the complete and full performance of the T&I WORK, in full compliance with this CONTRACT, except if specifically stated in this CONTRACT as being supplied by the COMPANY.

## **Article 31 Taxes and Customs Duties**

### **31.1 Responsibility of the T&I CONTRACTOR**

- 31.1.1 Except VAT as is stated in sub-article 31.1.2, for Customs Duties and Import Taxes as is stated in sub-article 31.3.2, the T&I CONTRACTOR shall assume full responsibility and liability for payment of all customs duties, import and export taxes ("Customs Duties and Import Taxes") with regard to the import, re-export, export of Imported Items and all other taxes, duties, levies, charges, fiscal contributions, other charges and imposts of any nature whatsoever including, employment taxes and contributions imposed by law, taxes imposed by trade union contracts, contributions for unemployment and redundancy, old age benefits, welfare funds, pensions, annuities and disability allowances, withholding taxes, personal income taxes, stamp duties imposed by the government of Thailand and other governments and/or authorities, property taxes, capital gain taxes, added value taxes, turnover taxes and/or corporate taxes (including

penalties and interest thereon) for which the T&I CONTRACTOR is liable and/or that are from time to time imposed on or assessed against the T&I CONTRACTOR by:

- a) any GOVERNMENT and/or any fiscal or other authority thereof; and/or
- b) any fiscal or other authority whatsoever,

in each case in respect of or arising out of:

- c) the T&I CONTRACTOR or its SUBCONTRACTORS' PERSONNEL (whether or not such taxes, levies, charges and contributions are measured by wages, salaries, benefits, expenses and/or other remunerations);
- d) the performance of the CONTRACT;
- e) non-compliance with the CONTRACT by the T&I CONTRACTOR;
- f) the income, profits, dividends, turnover and gains of the T&I CONTRACTOR arising directly or indirectly out of the performance of the CONTRACT; and/or
- g) ensuring that any SUBCONTRACTOR or any other person employed or providing services on or in connection with the CONTRACT shall comply with this article 31.

#### 31.1.2 Value Added Tax Levied in the Kingdom of Thailand

All prices and rates set out in Exhibit B do not include for Thai Value Added Taxes ("VAT") which is due and payable by the COMPANY with regard to the T&I CONTRACTOR's valid invoices (issued as per article 32) to the COMPANY for T&I WORK performed.

#### 31.1.3 Other Obligations

The T&I CONTRACTOR shall indemnify, defend and hold the COMPANY harmless from and against any and all CLAIMS arising out of, related to or in connection with the payment of Customs Duties and Export Taxes with regard to the import, re-export, export of Imported Items and all other taxes, duties, levies, charges, fiscal contributions, other charges and imposts (including penalties and interest thereon, which by the terms of this sub-article 31.1 the T&I CONTRACTOR, SUBCONTRACTOR, VENDOR and their AFFILIATES, and all their employees are liable for or which may be imposed on him or assessed against him (including any applicable reporting or procedural requirements), and shall reimburse promptly to the COMPANY any sum which the latter may have to pay as a result of any default of an act or a non-payment by the T&I CONTRACTOR, his SUBCONTRACTORS, his VENDORS, their AFFILIATES, and/or their employees, servants or agents.

Except for VAT as per sub-article 31.1.2 and Exhibit B, the T&I CONTRACTOR hereby represents and warrants that he has taken into account in establishing the sums, rates and prices set out in Exhibit B and elsewhere in this CONTRACT for all the said sub-article 31.1 items for which the T&I CONTRACTOR and members of the CONTRACTOR GROUP are and/or will be liable and/or which may be imposed as provided in this sub-article 31.1 and those which may be imposed on him by GOVERNMENT and APPLICABLE LAWS.

31.2 Statutory Deductions

31.2.1 Where under the provisions of any APPLICABLE LAWS, the COMPANY is required to deduct or withhold any amount, whether as tax or howsoever called, the COMPANY shall deduct the specified amount or rate from any amount payable to the T&I CONTRACTOR. The COMPANY shall pay over or deal with any amount so deducted in accordance with APPLICABLE LAWS. The COMPANY shall within three months of such deduction hand over to the T&I CONTRACTOR receipts evidencing payment of such deduction or withholding if so requested by the T&I CONTRACTOR.

31.2.2 If the T&I CONTRACTOR claims to be exempted from any statutory deductions pursuant to APPLICABLE LAWS, he shall inform the COMPANY and provide required and necessary documentation to support his case, including certificate of exemption from the relevant authority. The COMPANY may act on the information given at its discretion and shall not be liable to the T&I CONTRACTOR or any other person or body in the event that the COMPANY applies the statutory deduction according to the APPLICABLE LAWS.

31.3 Customs Duties and Import Taxes

31.3.1 Counties Other Than the Country of the SITE

The T&I CONTRACTOR shall bear at its sole risk, cost, expense and liability any and all Customs Duties and Import Taxes levied for and in connection with Imported Items, the T&I WORK and the performance thereof levied and/or paid by members of the CONTRACTOR GROUP in countries other than the country of the location of the SITE. The COMPANY shall not reimburse Customs Duties and Import Taxes except as is provided in sub-article 31.3.2.

31.3.2 Country of the SITE

Notwithstanding the provisions of sub-article 23.6.3 the T&I CONTRACTOR shall bear at its sole risk, cost, expense and liability any and all Customs Duties and Import Taxes levied for and in connection with the importation, re-export and export of Imported Items into and from the Kingdom of Thailand.

Notwithstanding the forgoing, the COMPANY shall reimburse the T&I CONTRACTOR the net amount of Customs Duties and Imported Taxes actually paid by the T&I CONTRACTOR for the import, re-export, export as the case may be, for RESULT OF THE WORK, T&I PLANT components, CONTRACTOR ITEMS and COMPANY ITEMS in the care and custody of the CONTRACTOR, provided the T&I CONTRACTOR was formally demanded by GOVERNMENT or Customs Authority in writing to pay such Customs Duties and Import taxes, the T&I CONTRACTOR notified the COMPANY in a timely manner and complied with instructions from the COMPANY. If the EPC CONTRACTOR fail to notify and/or comply with the COMPANY instruction, the EPC CONTRACTOR shall have no right to compensation pursuant to this sub-article.

For clarity Customs Duties and Import Taxes means customs duties, import and export taxes only and does not include, brokerage and brokerage fees, agents and agents fee, handling and handling fees, demurrage and demurrage fees, inspection

and inspection fees, penalties, fines and anything else that is not a customs duty, import or export tax.

#### 31.3.3 Penalties and Fines

The T&I CONTRACTOR shall have full and sole responsibility for the payment of any and all penalties, fines, fees and the like, imposed on the COMPANY, the T&I CONTRACTOR and/or SUBCONTRACTORS, VENDORS and/or their PERSONNEL for failure to pay in due time customs duties and similar charges or to comply with APPLICABLE LAWS with regard to importation, exportation and/or re-exportation of any or all of the Imported Items. If any such penalties and or fines are levied on the COMPANY, the CONTRACTOR shall pay such amounts of such fines to the COMPANY.

#### 31.3.4 Refunds and Rebates

The T&I CONTRACTOR shall apply for any refund of customs duties and charges for which he is entitled to claim reimbursement from the relevant authorities. The T&I CONTRACTOR shall also apply for any and all rebates and remission of customs duties and charges to which he is (or may become) entitled. Upon receipt, the T&I CONTRACTOR shall immediately reimburse the COMPANY accordingly for the full amounts of such reimbursements.

The T&I CONTRACTOR shall, however, apply for any exemption to which he is entitled in respect of customs duties and charges, in order to avoid the COMPANY being involved in the financing of such duties and charges.

#### 31.3.5 Reimbursement Procedure

The T&I CONTRACTOR shall submit invoices for, and shall receive payment in respect of, all amounts properly due in respect of reimbursable customs duties in accordance with the provisions of article 32.

#### 31.3.6 Other Obligations

The T&I CONTRACTOR shall be liable for all the costs and consequences of his failure to comply with his obligations with regard to the imported, re-export and/or export of Imported Items and or any non-compliance with the requirements of article 31.

### **Article 32 Invoicing and Payment**

Invoicing and payment procedures set out hereinafter shall apply to all amounts becoming due under the CONTRACT including those resulting from CHANGE ORDER.

If the T&I CONTRACTOR is an association of companies or other form of juristic persons, the sole agent designated in sub-article 9.2 shall submit a single invoice on behalf of the Consortium or Joint Venture irrespective of which member or members have actually performed the T&I WORK invoiced. *[Note to TENDERERS this paragraph will only be included in the CONTRACT if the T&I CONTRACTOR is an association of Companies]*

#### 32.1 Invoicing

The T&I CONTRACTOR shall, on a monthly basis, promptly submit invoices for the lump sum, cost reimbursable and unit rate part of the CONTRACT PRICE for the T&I WORK

actually performed during the period in accordance with the approved T&I WORK progress figures as described in sub-article 15.3 and the provisions of Exhibit B.

In accordance with the provisions of Exhibit B, the T&I CONTRACTOR shall also submit on a monthly basis the invoices corresponding to signed CHANGE ORDERS for which the corresponding T&I WORK has been performed and APPROVED.

All valid invoices shall:

- a) bear the reference "Contract No. THC19-5246"
- b) clearly indicate the part of the T&I WORK for which payment is requested as per the Schedule of Invoicing or Monthly Progress Report and attach copies of the INTERIM CERTIFICATES if relevant to the achievement of a milestone,
- c) be established without Thai VAT i.e. that which is levied and payable in the Kingdom of Thailand (which shall be invoiced separately, if applicable),
- d) be established in accordance with invoicing procedures under this CONTRACT,
- e) be supported by all necessary documents for and to enable COMPANY's review,
- f) clearly indicate the name, address, SWIFT or BIC of the CONTRACTOR's Bank and his account name and number,
- g) clearly indicate all credits for sums due by T&I CONTRACTOR including reimbursement of advance payments, if any,
- h) be in the name of T&I CONTRACTOR, and
- i) be sent in one (1) original (clearly stamped "ORIGINAL") and three (3) copies, including attachments, to:

For T&I WORK performed in relation to ARTHIT Concession to:

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED,  
555/1, Energy Complex Building A, Floors 6, 19 – 36,  
Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900, Thailand.  
Attention: Accounting Department (Invoice Billing)

For T&I WORK performed in relation to Block G8/50 to:

PTTEP INTERNATIONAL LIMITED,  
555/1, Energy Complex Building A, Floors 6, 19 – 36,  
Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900, Thailand.  
Attention: Accounting Department (Invoice Billing)

For T&I WORK performed in relation to Block G1/61 to:

PTTEP ENERGY DEVELOPMENT COMPANY LIMITED,  
555/1, Energy Complex Building A, Floors 6, 19 – 36,  
Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900, Thailand.  
Attention: Accounting Department (Invoice Billing)

For T&I WORK performed in relation to Block G2/61 to:

PTTEP ENERGY DEVELOPMENT COMPANY LIMITED,  
555/1, Energy Complex Building A, Floors 6, 19 – 36,

Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900, Thailand.  
Attention: Accounting Department (Invoice Billing)

A PDF copy (indexed, searchable and OCR readable and PDF printed from native file) shall also be submitted via PROJECT Electronic Document Management System (EDMS).

Further Conditions for Invoicing

All invoices shall be prepared and submitted in accordance with the requirements of Exhibit G (Invoicing and Cost Control) and such other requirements as the COMPANY may require from time to time.

The CONTRACTOR represents and warrants that all documents including invoices, vouchers, financial settlements, billings and reports submitted to the COMPANY by the CONTRACTOR in support of any costs shall truly reflect the facts about the activities and transactions to which they pertain and that in any recording or reporting made for whatever purpose by the COMPANY, the COMPANY shall be entitled to rely upon all such documents and the data therein as being complete and accurate.

The CONTRACTOR further agrees to promptly notify the COMPANY upon discovery of any instance where the CONTRACTOR has failed to comply with the here above provision. The CONTRACTOR shall place similar requirements on SUBCONTRACTOR and VENDOR.

The COMPANY requires a period of up to sixty (60) days for review and verification each invoice for CHANGE ORDERS for sub-article 44.7 Repair Work. Thus, subject to sub-article 32.2 the terms of sub-article 32.3 shall apply from the end of the sixty-day period or earlier if the COMPANY should confirm the applicable invoice relating to a CHANGE ORDER for sub-article 44.7 Repair Work is approved.

32.2 Disputed Invoices

If the COMPANY disputes all or part of any invoice or should the COMPANY discover an error in an invoice, it shall inform the CONTRACTOR and explain reasons for rejection.

The COMPANY and the CONTRACTOR shall discuss and identify actions required to allow the COMPANY to pay the undisputed part.

The CONTRACTOR shall comply with COMPANY instructions / directions with regard thereto. All consequences in connection with and/or arising from a disputed invoice including the payment of the undisputed part shall be borne by the CONTRACTOR.

32.3 Terms of Payment

32.3.1 Valid invoices received by the COMPANY in its office from the 1<sup>st</sup> to the 15<sup>th</sup> of each month shall be subject to approval Process and if not disputed as per sub-article 32.2 will be paid within the 15<sup>th</sup> of the following month, and all properly established invoices received by the COMPANY in its office from the 16<sup>th</sup> to the end of the month, and if not disputed as per sub-article 32.2 will be paid on or before the end of the following month.

If the last day for payment falls on a Saturday, Sunday, public holiday or Bank holiday, the payment shall be made on the next working day.



Subject to sub-article 9.2 the COMPANY will make all such payments to the Bank account designated on such invoices, subject to APPLICABLE LAWS. Payment shall be deemed made as of the date of transfer from COMPANY's Bank.

32.3.2 Payments made under, or in connection with, the CONTRACT shall be subject to applicable banking and currency control regulations of the relevant government. Should any conversion of currencies be required for such payments, the basis for such conversions shall be the average of closing buying rates "Sight Bill" and selling rates, announced by the Bank of Thailand two (2) working days before the payment date; and

subject to the foregoing, payment for reimbursements of costs and expenses under the CONTRACT shall be made in the currency originally paid by the EPC CONTRACTOR unless otherwise agreed.

32.4 Delayed Payment of T&I CONTRACTOR's Invoices

Any undisputed valid invoice due and payable by the COMPANY to the T&I CONTRACTOR under this CONTRACT which is not paid by the expiry of the time for payment (the due date) specified in the present article shall bear interest thereon from the due date until the date of transfer of such amount from COMPANY's Bank, calculated at the average rate (for the period of delayed payment) of the one-year US Dollar London Inter Bank Offered Rate "LIBOR" (as published by the British Bankers Association or any other person which takes over the administration of LIBOR). In the event that LIBOR is discontinued or the methodology, formula or other means of determination has materially changed, either (A) a benchmark rate that the PARTIES mutually agree, or (B) failing such agreement, a benchmark rate which can be used for the calculation of interest and is formally designated, nominated or recommended as the replacement for LIBOR by the British Bankers Association or any successor administration of LIBOR; and if LIBOR is a negative number it shall be deemed to be zero.

32.5 Sums due by the T&I CONTRACTOR

At any time during the performance of this CONTRACT, the COMPANY shall have the right, after notifying the T&I CONTRACTOR, to deduct from any sums due to the CONTRACTOR, all and any sums due to the COMPANY by the T&I CONTRACTOR for whatever reason, including:

- a) overpayments made to the T&I CONTRACTOR,
- b) materials sold or services furnished to the T&I CONTRACTOR,
- c) additional COMPANY costs resulting from T&I CONTRACTOR's failure to perform any part of the T&I WORK, in accordance with the provisions of the CONTRACT related to suspension, and/or termination due to T&I CONTRACTOR's default,
- d) CLAIMS and/or proceedings of third parties against the COMPANY in relation to T&I CONTRACTOR's performance of the CONTRACT and resulting in payment or commitment to pay by the COMPANY according to judgment of the court or APPLICABLE LAWS (unless T&I CONTRACTOR's liability has been expressly waived under the CONTRACT),

- e) any withholding or assessment of any nature resulting from the location of payment designated on T&I CONTRACTOR's invoices (and which shall be for the sole account of the T&I CONTRACTOR), or
- f) any amounts deemed necessary to indemnify and/or protect the COMPANY against any lien created in connection with T&I CONTRACTOR's performance of this CONTRACT unless the T&I CONTRACTOR immediately shows appropriate evidence proving that such lien is not valid.

Should sums due by the T&I CONTRACTOR exceed the sums due by the COMPANY, the T&I CONTRACTOR shall immediately pay the difference to the COMPANY, failing which the COMPANY shall be entitled to charge the interest under article 32.4 (which shall apply mutatis mutandis), and shall have the right to call the Performance Bank Guarantee without prejudice to its other rights under this CONTRACT or at law.

### 32.6 Final Assessments and Final Invoices

#### 32.6.1 Final Assessment

Final Assessments shall be prepared and submitted on a PHASE by PHASE basis.

No later than fourteen days (14) days after the date of issue of the last PROVISIONAL ACCEPTANCE CERTIFICATE for a PHASE the T&I CONTRACTOR shall submit a detailed itemized Final Assessment for the PHASE to the COMPANY comprising; a breakdown of the CONTRACT PRICE, invoices and payments summary plus itemized details of all outstanding items, differences, disputes and CLAIMS arising from and/or in connection with the PHASE.

The Final Assessment for a PHASE shall also show the balance due the T&I CONTRACTOR or in favor of the COMPANY and shall be in such format as the COMPANY may require.

#### 32.6.2 Final Assessment by the COMPANY

If the T&I CONTRACTOR fails to submit a Final Assessment for a PHASE in accordance the requirements of sub-article 32.6.1 then the COMPANY shall be solely entitled to determine the amounts due to the T&I CONTRACTOR and/or in favor of the COMPANY for such PHASE.

#### 32.6.3 FINAL ACCOUNT CERTIFICATES

FINAL ACCOUNT CERTIFICATES shall be concluded on a PHASE by PHASE basis, utilizing the form set out in ANNEX-8 hereto, after the following:

- a) the PARTIES have agreed the final CONTRACT PRICE for the PHASE,
- b) the T&I CONTRACTOR has satisfied all related CLAIMS and has cleared all liens in connection with the T&I WORK and the PLANT for such PHASE,
- c) the T&I CONTRACTOR has paid and satisfied in full all and any outstanding obligations in arising from and in connection of the T&I WORK, the PLANT and under the terms and requirements of this CONTRACT and otherwise for such PHASE.

32.6.4 Final Invoice

The T&I CONTRACTOR shall submit the Final Invoice for a PHASE after the FINAL ACCOUNT CERTIFICATE and FINAL ACCEPTANCE CERTIFICATES for such PHASE have been agreed and signed by the PARTIES.

The Final Invoice for a PHASE shall conclude accounts between the PARTIES for that PHASE and no further invoice submitted for or behalf of the T&I CONTRACTOR for such PHASE shall be accepted by the COMPANY.

32.7 Improper Payment

Payment of any invoice shall not limit or restrict the right of the COMPANY to contest any sum(s) improperly paid to the T&I CONTRACTOR.

Any CLAIM so exercised, and recognized as well founded, shall result in an immediate reimbursement by the T&I CONTRACTOR.

32.8 Not used

**Article 33 Performance Bank Guarantees and Parent Company Guarantee.**

The T&I CONTRACTOR hereby agrees to provide i) irrevocable Performance Bank Guarantees payable on first demand of the COMPANY to guarantee the due performance of T&I CONTRACTOR's obligations under this CONTRACT, and ii) a Parent Company Guarantee.

33.1 Performance Bank Guarantees

33.1.1 Form of Performance Bank Guarantees

The T&I CONTRACTOR undertakes to provide, subject to the other requirements of this article 33, a Performance Bank Guarantee per PHASE issued by Thai Bank or branch office in Thailand of international Bank approved by the COMPANY in the specific form set out in ANNEX-1/A.

33.1.2 Amount of Performance Bank Guarantees

The amount of the Performance Bank Guarantee for the first PHASE shall be equal to ten percent (10%) of the estimated Initial CONTRACT PRICE of the first PHASE. The estimated Initial CONTRACT PRICE for the first PHASE shall be evaluated by COMPANY and the T&I CONTRACTOR shall be informed of such amount on or immediately after the EFFECTIVE DATE.

Performance Bank Guarantees for subsequent PHASES shall be provided by the T&I CONTRACTOR to the COMPANY no later than thirty (30) days after the issuance of the NOTICE TO PROCEED for the applicable PHASE.

Performance Bank Guarantee amounts for subsequent PHASES shall be equal to ten percent (10 %) of the Initial CONTRACT PRICE for the relevant PHASE.

33.1.3 Duration of Performance Bank Guarantees

The Performance Bank Guarantee for each PHASE shall as a minimum be valid up to the date of expiry of the WARRANTY PERIOD for the relevant PHASE and unless there are outstanding CLAIMS shall lapse automatically at such time.

If there are outstanding CLAIMS for a PHASE or the FINAL ACCEPTANCE CERTIFICATE for the PHASE has not been issued, the T&I CONTRACTOR shall, not later than thirty (30) days prior to the expiration of the existing Performance Bank Guarantee, either cause the Bank to provide the COMPANY with a new Performance Bank Guarantee in the same format and for the same amount as the previous one but valid as a minimum from the date of expiry of the existing Performance Bank Guarantee to the date of issuance of the FINAL ACCEPTANCE CERTIFICATE for the PHASE or the T&I CONTRACTOR shall cause the Bank to provide an extension of the existing Performance Bank Guarantee in the same format and for the same amount as the previous one but valid as a minimum from the date of expiry of the existing Performance Bank Guarantee to the date of issuance of the FINAL ACCEPTANCE CERTIFICATE for the PHASE.

33.1.4 Rights of the COMPANY in case of Unsatisfactory Performance Bank Guarantee

If the T&I CONTRACTOR fails to provide a satisfactory Performance Bank Guarantee in accordance with the provisions of this article within thirty (30) days from the EFFECTIVE DATE, the COMPANY shall not be obliged to make any payments to T&I CONTRACTOR for the relevant PHASE until T&I CONTRACTOR has provided a satisfactory Performance Bank Guarantee for the PHASE and the COMPANY shall have the right at any time, without prior notification and without any liability whatsoever, to suspend and/or terminate the CONTRACT or part thereof under sub-articles 48.3 and 48.4 respectively.

Should, at any time and for any reason, a Performance Bank Guarantee prove not to be enforceable, the COMPANY shall be entitled to suspend any and all payments to the T&I CONTRACTOR until the T&I CONTRACTOR has provided the COMPANY with a new, enforceable and satisfactory Performance Bank Guarantee.

33.1.5 Adjustment of the Initial Amount of Performance Bank Guarantee

The amount of the Performance Bank Guarantee for a PHASE shall be increased / decreased proportionately in the event that the CONTRACT PRICE for such PHASE shall be increased or decreased by more than ten per cent (10%) of the Initial CONTRACT PRICE for such PHASE.

Further proportionate adjustments in the amount of the Performance Bank Guarantee shall be made in respect of increases of more than ten per cent (10%) in the value of the CONTRACT PRICE for a PHASE compared with the value at the date of the previous adjustment.

Adjustments to Performance Bank Guarantee amounts shall be made by means of a formal written amendment to the Performance Bank Guarantee which shall be prepared and issued by the GUARANTOR or by a replacement Performance Bank Guarantee. All such written amendments and replacement Performance Bank Guarantees shall be subject to prior written approval by the COMPANY.

Adjustments to amount of a Performance Bank Guarantee and replacement Performance Bank Guarantees shall not take effect until the COMPANY REPRESENTATIVE has approved the aforementioned amendment or replacement. Such approval shall not be unreasonably withheld.

The T&I CONTRACTOR shall be solely responsible for arranging amendments to the amount of a Performance Bank Guarantee as aforesaid in a timely manner and shall bear all costs and expenses in this respect.

If the T&I CONTRACTOR fails to ensure that the amount of a Performance Bank Guarantee is adjusted as aforesaid, the COMPANY may subject to fourteen (14) day notice, withhold payment of an amount equal to the adjustment amount until either the Performance Bank Guarantee is amended as aforesaid or the FINAL ACCEPTANCE CERTIFICATE for the applicable PHASE is issued, whichever is the later.

The T&I CONTRACTOR shall provide the Bank at any time with supporting documents, with copy to the COMPANY, in order to ascertain the exact amount of a Performance Bank Guarantee with regard to any CLAIM. If the T&I CONTRACTOR fails to do so the COMPANY may provide the Bank with such supporting documents.

33.1.6 Amount of Performance Bank Guarantee during WARRANTY PERIODS

After the issuance of the last PROVISIONAL ACCEPTANCE CERTIFICATE for a PHASE, the amount of the applicable Performance Bank Guarantee shall be adjusted to five per cent (5 %) of the estimated final CONTRACT PRICE for the PHASE and shall thereafter be maintained in such amount up to the date of issue of the FINAL ACCEPTANCE CERTIFICATE for the PHASE.

The estimated final CONTRACT PRICE for a PHASE shall be established based on the applicable Final Assessment for such PHASE pursuant to sub-article 32.6 and subject to approval by the COMPANY.

33.2 Parent Company Guarantee

33.2.1 Form of Parent Company Guarantee

The T&I CONTRACTOR shall provide a Parent Company Guarantee from the ultimate parent company of the T&I CONTRACTOR in the specific form set out in ANNEX-1/C.

33.2.2 Rights of COMPANY in case of Unsatisfactory Parent Company Guarantee

Should the T&I CONTRACTOR fail, within fourteen (14) days from EFFECTIVE DATE or within such longer period as the COMPANY may agree, to provide a satisfactory Parent Company Guarantee in accordance with the provisions of sub-article 33.2.1, the COMPANY shall not be obliged to make any payments to the T&I CONTRACTOR until the T&I CONTRACTOR has provided such satisfactory Parent Company Guarantee and the COMPANY shall have the right at any time, without prior notification and without any liability whatsoever, to suspend and/or terminate this CONTRACT under the provisions of sub-articles 48.3 and 48.4 respectively.

Should, at any time and for any reason, the Parent Company Guarantee prove not to be enforceable, the COMPANY shall be entitled to suspend any and all payments to the T&I CONTRACTOR until the T&I CONTRACTOR has provided the COMPANY with a new and satisfactory Parent Company Guarantee.

33.3 Not used

33.4 Demands

- 33.4.1 Subject to the provisions of article 48, the COMPANY shall have the right at any time to demand the payment of all or any part of a Performance Bank Guarantee under the form set forth in ANNEX-1/B and/or to enforce the Parent Company Guarantee.
- 33.4.2 Not used
- 33.4.3 If the COMPANY receives any payment from the Bank under the terms of a Performance Bank Guarantee, and if it is later established that the T&I CONTRACTOR was not in breach of his obligations as indicated by the COMPANY in its notice to the T&I CONTRACTOR, then the COMPANY shall reimburse such payment to the T&I CONTRACTOR, and, provided that the T&I CONTRACTOR can substantiate that he provided the COMPANY sufficiently in advance of the date of issue of the demand for payment with information that should have prevented the COMPANY from exercising its right to make such demand, the COMPANY shall reimburse the T&I CONTRACTOR the additional Bank charges or interest charges which the T&I CONTRACTOR has paid as a direct result of COMPANY's demand on a Performance Bank Guarantee, but the COMPANY shall have no other liability to the T&I CONTRACTOR in respect thereof.

**Article 34 Liquidated Damages**

The T&I CONTRACTOR acknowledges and agrees that time is essence of this CONTRACT and without prejudice to any other right(s) the COMPANY may have under this CONTRACT or at law, the PARTIES hereby agree that liquidated damages shall be applied on a PHASE by PHASE basis in accordance with this present article 34, Exhibit B and/or the other terms and requirements of this CONTRACT, as follows:

34.1 Liquidated Damages for Late Completion of the T&I WORK

Without prejudice to any other CONTRACT provisions whatsoever and/or COMPANY's rights, if the T&I CONTRACTOR fails to complete the T&I WORK and/or any part thereof, as specified in Exhibits B and C, on or before the applicable required COMPLETION DATE, the COMPANY shall, without any prior formal notice or demand/or any proof of loss, have the right to apply and the T&I CONTRACTOR shall pay liquidated damages for such late completion to the COMPANY. The amount of such liquidated damages for such late completion shall be calculated in accordance with Section of 8.1 Exhibit B and shall be subject to the limitation in sub-article 58.2 and Exhibit B.

34.2 Liquidated Damages for Standby of Drilling Rigs at the SITE.

Without prejudice to any provision of this CONTRACT and/or COMPANY's rights if a Drilling Rig is unable to access a new Wellhead Platform at the SITE to perform drilling and/or drilling hook up work as further explained in Exhibit B, the COMPANY shall, without any prior formal notice or demand/or any proof of loss, have the right to apply and the T&I CONTRACTOR shall pay liquidated damages for standby of the drilling rig at the SITE to the COMPANY.

The amount of such liquidated damages for standby of a drilling rig at a SITE shall be calculated in accordance with Section 8.2 of Exhibit B and shall be subject to the limitation in sub-article 58.2 and Exhibit B.

34.3 Liquidated Damages for Unauthorized Substitution and/or Removal of KEY PERSONNEL

Without prejudice to any provision of this CONTRACT and/or COMPANY's rights, if any KEY PERSONNEL (from those stated in Exhibit K) or one as may be subsequently approved by the COMPANY are substituted or removed in violation of sub-article 25.2.3, the COMPANY shall, without any prior formal notice or demand/or any proof of loss, have the right to apply and the T&I CONTRACTOR shall pay liquidated damages to the COMPANY for such unauthorized substitution and/or removal.

The amount of such liquidated damages for such unauthorized substitution and/or removal shall be calculated in accordance with Section 8.3 of Exhibit B and shall be subject to the limitation in sub-article 58.2 and Exhibit B.

34.4 Liquidated Damages for Unauthorized Removal and/or Substitution of a KEY VESSEL

Without prejudice to any provision of this CONTRACT and/or COMPANY's rights, if the T&I CONTRACTOR should remove or substitute a KEY VESSEL (from those stated in Exhibit K) or one as may be subsequently approved by the COMPANY, in violation of sub-article 26.4 the COMPANY shall have the right without prior formal notice or demand/or any proof of loss, to apply and the T&I CONTRACTOR shall pay liquidated damages to the COMPANY for such default.

The amount of such liquidated damages for unauthorized removal and/or substitution of a KEY VESSEL shall be calculated in accordance with Section 8.4 Exhibit B and shall be subject to the limitation in sub-article 58.2 and Exhibit B.

34.5 Not used

34.6 Damages for Unauthorized Change and/or Addition of a T&I Engineering Office Location

Without prejudice to any other CONTRACT provisions whatsoever and/or COMPANY's rights, if the a T&I Engineering Office location identified as such in Exhibit K (from those stated in Exhibit K) or one as may be subsequently approved by the COMPANY or introduce an additional T&I Engineering Office location, the COMPANY shall, without any prior formal notice or demand/or any proof of loss, have the right to apply and the T&I CONTRACTOR shall pay liquidated damages to the COMPANY for each such change and/or additional Engineering Office location.

The amount of such liquidated damages for each change and/or additional Engineering Office location shall be calculated in accordance with Section 8.6 of Exhibit B and shall be subject to the limitation in sub-article 58.2 and Exhibit B.

34.7 Estimate of the COMPANY's Loss and Damage

Notwithstanding the provisions of Section 383 of the Thai Civil and Commercial Code, the PARTIES hereby agree that monetary amount of liquidated damages as compensation for the specific defaults described in sub-articles 34.1, 34.2, 34.3, 34.5, and 34.6 and as per Exhibit B are mutually agreed by the PARTIES to be fair and reasonable and shall apply respectively for the events described in sub-articles 34.1, 34.2, 34.3, 34.5, and 34.6, provided the amounts of any such liquidated damages are calculated in accordance with the terms and requirements of this CONTRACT.

Furthermore, the PARTIES mutually agree with regard to amounts of liquidated damages calculated as aforesaid that they will not seek adjustment of the liquidated damage amounts (neither increase nor decrease).

The payment of liquidated damages shall not relieve the T&I CONTRACTOR from his obligation to complete the T&I WORK, nor from any other duties, obligations or liabilities which he may have under this CONTRACT and APPLICABLE LAWS.

34.8 Reservation of COMPANY Rights

The COMPANY reserves its right to call upon such liquidated damages amounts from the applicable Performance Bank Guarantee and/or other guarantee, to demand such amount from the T&I CONTRACTOR and/or to deduct such amount from the payment(s) made and/or to be made to the T&I CONTRACTOR; the COMPANY hereby reserves all rights under this CONTRACT and at law with regard to recovery of liquidated damages.

**Article 35 Accounting and Audit**

Payments made by the COMPANY shall not be construed as waiver of COMPANY's right to object to any paid invoices.

The T&I CONTRACTOR shall safely keep and cause SUBCONTRACTOR and VENDOR to keep in accordance with generally accepted accounting practice, accurate detailed records compliance with this CONTRACT, safety record and accounts pertaining to the performance of the T&I WORK, including PERSONNEL records, correspondence, receipts, vouchers, memoranda, computerized data and such other information necessary for an accurate audit and verification of any reimbursable costs, and/or other purposes for the duration of this CONTRACT and for a period of five (5) years following the date of issue of the last FINAL ACCEPTANCE CERTIFICATE under this CONTRACT or from the date of termination of this CONTRACT, whichever is applicable.

The COMPANY shall have the right during such period to audit (or have audited) and to copy any records and accounts for verification of any sum payable under this CONTRACT.

In the case of termination of this CONTRACT under the provisions of articles 48, 49 or 50, such right shall extend to any documentation related to costs to be reimbursed by the COMPANY to the T&I CONTRACTOR following such termination.

Notwithstanding sub-article 32.6, if as a result of any review or audit it is established that an invoice submitted under this CONTRACT is erroneous, the T&I CONTRACTOR shall promptly adjust such error(s) and send to the COMPANY the corresponding invoice or credit note.

In addition to the COMPANY's foregoing rights and within the same limits, the COMPANY shall have the right to be a party with this T&I CONTRACTOR in the joint inspection and audit of SUBCONTRACTORS and/or VENDORS in respect of the T&I WORK.

The COMPANY shall determine the selection of SUBCONTRACTOR and/or VENDOR to be inspected and audited.

The T&I CONTRACTOR shall ensure that the foregoing provisions are included in all contracts to be entered into with SUBCONTRACTORS and VENDORS.

**Article 36 Additional Definitions**

Notwithstanding any other definitions, including those within sub-article 2.1, and when appearing in upper case letters, the following expressions and derivatives thereof shall, within articles 36 to 44, have the meanings hereby assigned to them.



- a) The term THIRD PARTY means any party other than either any of the COMPANY INDEMNIFIED PARTIES or any of the T&I CONTRACTOR INDEMNIFIED PARTIES.
- b) The term PLANT means PLANT and RESULT OF THE WORK.

**Article 37 Liabilities between the T&I CONTRACTOR and the COMPANY**

**37.1 Care of the PLANT, PLANT Components and COMPANY ITEMS Until HANDOVER**

**37.1.1 Up to HANDOVER of the Respective Parts of the PLANT**

**a) T&I CONTRACTOR's Responsibilities and Liabilities**

Notwithstanding any title consideration, the T&I CONTRACTOR shall, from the commencement of the T&I WORK until and including the effective date of the last HANDOVER CERTIFICATE for a PLATFORM take full responsibility for the care of the respective parts of the PLANT and the care of major PLANT components and also the COMPANY ITEMS (if any) from delivery to the T&I CONTRACTOR.

Likewise, in respect of the new FSO Pipeline, PLEM and Tie-ins (between PLEM and FSO Pipeline) and FSO Flexible Pipe and Tie-ins at Central Processing Platform. The T&I CONTRACTOR shall from the commencement of the FSO WORK until and including the effective date of the applicable HANDOVER CERTIFICATE take full responsibility for the care of the respective part of the PLANT and the related COMPANY ITEMS from delivery to the T&I CONTRACTOR.

Should any damage or loss occur to the aforesaid parts of the PLANT or any part thereof and/or the aforesaid COMPANY ITEMS, from any cause (but not including EXCEPTED RISKS) the T&I CONTRACTOR shall at his own risk, cost and expense repair or replace the same so that at such effective date of the aforesaid respective HANDOVER CERTIFICATE the aforesaid applicable parts of the PLANT or any part thereof and/or the aforesaid COMPANY ITEMS shall be in good order and condition and in conformity in every respect with the requirements of the CONTRACT.

**b) Repair Work by the COMPANY OTHER CONTRACTOR(S)**

Repair and/or replacement of loss and or damage to the PLANT or any part thereof and/or the COMPANY ITEMS (if any) may, instead of being performed by the T&I CONTRACTOR may be entrusted to another contractor (such action being at the sole option and decision of the COMPANY) without any compensation to the T&I CONTRACTOR but in such a case, the T&I CONTRACTOR shall not guarantee that part of the PLANT so repaired.

**c) Loss and/or Damage Not Caused by CONTRACTOR INDEMNIFIED PARTIES**

Notwithstanding the foregoing, the COMPANY shall however assume full cost of repair and/or replacement of loss and/or damage when the T&I CONTRACTOR can evidence that none of the CONTRACTOR

INDEMNIFIED PARTIES has contributed, directly or indirectly, to loss or damage having occurred on or between WORKSITE.

d) TYPE 1 CONTRACTOR ITEMS and COMPANY ITEMS

In accordance with sub-article 14.5.7, surplus Material Group 1 CONTRACTOR ITEMS from a PHASE shall be utilized under the care of the T&I CONTRACTOR in a subsequent PHASE or PHASES. Likewise, for COMPANY ITEMS (if any).

37.1.2 HANDOVER to FINAL ACCEPTANCE

a) T&I CONTRACTOR's Responsibilities and Liabilities

The T&I CONTRACTOR shall also be liable from the effective date of the applicable HANDOVER CERTIFICATE to the effective date of the FINAL ACCEPTANCE CERTIFICATE for each PHASE, on a PHASE by PHASE basis, for any damage to major PLANT components and/or the PLANT and/or part thereof occasioned by the T&I CONTRACTOR INDEMNIFIED PARTIES.

The T&I CONTRACTOR shall promptly, if and to the extent requested by the COMPANY, repair and/or replace any loss and/or damage so caused without any extra cost to the COMPANY.

When performing repair and/or replacement of any such loss and/or damage as aforesaid after HANDOVER of the PLANT or part thereof referred to in sub-article 37.1.1, the T&I CONTRACTOR shall have care and custody of the part of the PLANT affected by such damage or rework.

b) Repair Work Performed by the COMPANY OTHER CONTRACTORS

Repair and/or replacement of loss and/or damage referred to in sub-article 37.1.2 a) may at the option of the COMPANY, be entrusted to another contractor without any compensation to the T&I CONTRACTOR but in such a case, the T&I CONTRACTOR shall not guarantee that part of the PLANT so repaired.

c) Waiver and Exception

Nevertheless, and notwithstanding sub-articles 37.1.2 a) and 37.1.2 b) but given that the warranty obligations of T&I CONTRACTOR under this CONTRACT shall not be reduced, the COMPANY waives all rights of recourse against the T&I CONTRACTOR INDEMNIFIED PARTIES for:

- i) any loss and/or damage to the PLANT, major PLANT components and related items and COMPANY ITEMS attributable to the CONTRACTOR INDEMNIFIED PARTIES occurring during the WARRANTY PERIOD which exceeds the period of coverage for the applicable PHASE of the Construction All Risk Insurance referred to in sub-article 43.2, or
- ii) any loss and/or damage to the PLANT and/or part thereof which has been handed over to the COMPANY as per sub-article 37.1.1 a) and is attributable to the CONTRACTOR INDEMNIFIED PARTIES performing T&I WORK on uncompleted parts of the PLANT during

the period between the effective date of such HANDOVER and the effective date of the FINAL ACCEPTANCE CERTIFICATE for the applicable PHASE, to the extent such loss and/or damage is no longer covered by the Construction All Risk Insurance described in sub-article 43.2.

with the exception of the costs of repair and/or replacement of the defective part of the PLANT and of the amounts of the deductibles mentioned in sub-article 44.2 which costs and amounts shall be borne by the T&I CONTRACTOR.

In all such cases, the T&I CONTRACTOR shall also promptly so far as may be requested by the COMPANY repair and replace the part of the PLANT so damaged and the T&I CONTRACTOR shall be paid for such repair and or replacement by the COMPANY, in accordance with sub-article 44.6 or 44.7.

### 37.1.3 Benefit of Insurance placed by the COMPANY

The principles set forth in sub-article 37.1 shall not deprive the T&I CONTRACTOR INDEMNIFIED PARTIES of the benefit of insurance to be placed by the COMPANY as per sub-article 43.2 to the extent provided by articles 43 and 44.

## 37.2 EXCEPTED RISKS

Notwithstanding anything to the contrary in this CONTRACT, if the PLANT and COMPANY ITEMS sustains destruction or damages on or between WORKSITES which is the consequence whether direct or indirect of war hostilities (whether declared or not), invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power or civil war, or strike, riot, commotion, disorder, otherwise than among PERSONNEL of the CONTRACTOR INDEMNIFIED PARTIES (these risks being comprehensively referred to as "EXCEPTED RISKS"), the T&I CONTRACTOR shall nevertheless be entitled to payment for any such PLANT so destroyed or damaged.

In such case, the T&I CONTRACTOR shall be entitled to be paid by the COMPANY by the means of a CHANGE ORDER for REPAIR AND/OR REPLACEMENT OF LOSS AND/OR DAMAGE so far as it may be requested by the COMPANY, the price for which shall to be evaluated in accordance with the requirements of this CONTRACT including but limited to the requirements of sub-article 22.3, Exhibit B and the other applicable terms of this CONTRACT.

## 37.3 Damage / loss of COMPANY Property (except PLANT and COMPANY ITEMS)

The COMPANY waives all rights of recourse against the T&I CONTRACTOR and shall indemnify, defend and hold harmless the CONTRACTOR INDEMNIFIED PARTIES from and against any and all CLAIMS in respect of damage to or loss of:

- a) any property of the COMPANY INDEMNIFIED PARTIES on the WORKSITE other than the PLANT and COMPANY ITEMS;
- b) any property of the EXISTING G1/61 OPERATOR GROUP on SITE; and
- c) any property of the EXISTING G2/61 OPERATOR GROUP on SITE

including loss of use thereof, arising from, related to or in connection with the performance of this CONTRACT, howsoever caused, including the negligence of any of the

CONTRACTOR INDEMNIFIED PARTIES or any of their respective PERSONNEL in the performance of this CONTRACT.

However, when such damage or loss is caused by any of the CONTRACTOR INDEMNIFIED PARTIES, the T&I CONTRACTOR shall bear the first five hundred thousand US Dollars (USD 500,000) of damages per occurrence but, when the risks of damages to said existing property are covered by the insurance to be placed by the COMPANY pursuant to article 43 hereafter, the T&I CONTRACTOR shall bear the corresponding deductibles up to five hundred thousand US Dollars (USD 500,000) per occurrence.

The COMPANY shall endeavor to obtain Mutual Indemnity and Waiver of Recourse Agreements from the COMPANY OTHER CONTRACTORS and shall upon request from the T&I CONTRACTOR advise T&I CONTRACTOR of any of the COMPANY OTHER CONTRACTORS that did not sign a Mutual Indemnity and Waiver of Recourse Agreement.

37.4 Damage to or Loss of CONTRACTOR INDEMNIFIED PARTIES Property

The T&I CONTRACTOR waives all rights of recourse against the COMPANY and shall indemnify, defend and hold harmless the COMPANY from and against any and all CLAIMS in respect of damage to or loss of property of the CONTRACTOR INDEMNIFIED PARTIES whether owned, hired, leased or otherwise provided by the CONTRACTOR INDEMNIFIED PARTIES, including loss of use thereof, arising from, related to or in connection with the performance of this CONTRACT, howsoever caused, including the negligence of the COMPANY INDEMNIFIED PARTIES or any of their respective PERSONNEL.

37.5 Personnel Injury/Disease/Death and Personal Property Loss or Damage

The COMPANY waives all rights of recourse against the T&I CONTRACTOR and shall indemnify, defend and hold the T&I CONTRACTOR harmless from and against any and all claims arising from, in connection with or related to loss of or damage to property of

- a) COMPANY GROUP's PERSONNEL and injuries to or disease or death of COMPANY GROUP's PERSONNEL;
- b) the EXISTING G1/61 OPERATOR GROUP's PERSONNEL and injuries to or disease or death of the EXISTING G1/61 OPERATOR GROUP's PERSONNEL; and
- c) the EXISTING G2/61 OPERATOR GROUP's PERSONNEL and injuries to or disease or death of the EXISTING G2/61 OPERATOR GROUP's PERSONNEL

regardless of the cause of or reason for said damage, loss, injuries, disease or death and even if caused by negligence of the CONTRACTOR INDEMNIFIED PARTIES or their respective PERSONNEL.

The T&I CONTRACTOR waives all rights of recourse against the COMPANY and shall indemnify, defend and hold the COMPANY harmless from and against any and all CLAIMS arising from, in connection with or related to loss of or damage to property of CONTRACTOR GROUP's PERSONNEL and injuries to or disease or death of CONTRACTOR GROUP's PERSONNEL, regardless of the cause of or reason for said damage, loss, injuries, disease or death and even if caused by negligence of the COMPANY INDEMNIFIED PARTIES or their respective PERSONNEL.

37.6 CONSEQUENTIAL LOSS

- a) The COMPANY shall indemnify, defend and hold harmless the T&I CONTRACTOR from and against any and all CLAIMS in respect of CONSEQUENTIAL LOSS which is suffered by the COMPANY INDEMNIFIED PARTIES, the EXISTING OPERATOR G1/61 GROUP and/or the EXISTING OPERATOR G2/61 GROUP as a result of, or in any way connected with, the performance or non-performance of the T&I CONTRACT, regardless of cause, including negligence, breach of duty or other fault of any member of the CONTRACTOR INDEMNIFIED PARTIES; and
- b) The T&I CONTRACTOR shall indemnify, defend and hold harmless the COMPANY from and against any and all CLAIMS in respect of CONSEQUENTIAL LOSS which is suffered by the CONTRACTOR INDEMNIFIED PARTIES as a result of, or in any way connected with, the performance or non-performance of this CONTRACT, regardless of cause, including negligence, breach of duty or other fault of any member of the COMPANY INDEMNIFIED PARTIES.

For an avoidance of doubt, any liquidated damages or other compensation provisions stipulated in this CONTRACT for delay, non-performance, mis-performance, default, warranty obligations or otherwise as per this CONTRACT, and CHANGE ORDERS shall not be considered as CONSEQUENTIAL LOSS.

37.7 Mutual Indemnity and Waiver of Recourse Agreements

Between the T&I CONTRACTOR, his SUBCONTRACTOR and the COMPANY OTHER CONTRACTORS

- a) The T&I CONTRACTOR shall sign a counterpart of the “Mutual Indemnity and Waiver of Recourse Agreement” (Version for the T&I CONTRACTOR) attached hereto (ANNEX-2/A)
- b) The T&I CONTRACTOR shall, unless otherwise approved, obtain from his SUBCONTRACTOR working on any WORKSITE, the signature of like counterpart of the “Mutual Indemnity and Waiver of Recourse Agreement” (Version for the T&I CONTRACTOR’s SUBCONTRACTOR) attached hereto (ANNEX-2/B).
- c) The COMPANY shall use its reasonable endeavors to obtain from the COMPANY OTHER CONTRACTORS and their subcontractors working on a SITE and/or WORKSITE the signature of like counterparts of Mutual Indemnity and Waiver of Recourse Agreement.
- d) Every SUBCONTRACT between the T&I CONTRACTOR and his SUBCONTRACTOR shall provide that the provisions of articles 36 to 44 shall apply between the COMPANY and such SUBCONTRACTOR in the same manner as they apply between the COMPANY and the T&I CONTRACTOR.
- e) With reference to article 11, at the time of the T&I CONTRACTOR asking for the consent of the COMPANY to contract to each SUBCONTRACTOR, the T&I CONTRACTOR shall obtain from the SUBCONTRACTOR working on or between the SITE and/or WORKSITE a waiver of corresponding rights of recourse against the COMPANY as per ANNEX-2/B (Mutual Indemnity and Waiver of Recourse Agreement) and ANNEX-3 (Liability and Insurance Agreement from

SUBCONTRACTORS) and shall indemnify and hold harmless the COMPANY against any and all consequences of his failure to obtain such waivers.

- f) The T&I CONTRACTOR at such time shall notify the COMPANY of the refusal of such potential SUBCONTRACTOR to sign a counterpart of said Mutual Indemnity and Waiver of Recourse Agreement and/or Liability and Insurance Agreement.
- g) Conversely, the SUBCONTRACTOR shall have the benefit of same indemnities and waivers of recourse from the COMPANY as the T&I CONTRACTOR.

37.8 GENERAL AVERAGE

37.8.1 When shipments are made on dedicated transportation and towage units including MARINE SPREAD carrying only the property of the COMPANY INDEMNIFIED PARTIES, the T&I CONTRACTOR on behalf of interests concerned with transportation units, and the COMPANY on behalf of interests concerned with cargo, waive any rights of claiming contribution to GENERAL AVERAGE expenses and/or sacrifices against the other PARTY; this waiver is not to be construed as applicable to awards claimed by salvors and related costs which shall be apportioned in proportion to salvaged values or as determined by salvage arbitrators.

37.8.2 In all other circumstances, including transportation by scheduled liner services, GENERAL AVERAGE shall be adjusted according to the latest edition of the York-Antwerp rules, as determined and from time to time revised by the Comité Maritime International, at EFFECTIVE DATE.

37.9 Liabilities for Salvage Operations performed by the T&I CONTRACTOR

37.9.1 Where shipments are made on dedicated transportation and towing units, including MARINE SPREAD carrying only the property of the COMPANY and/or COMPANY OTHER CONTRACTORS:

- a) Within their capabilities, transportation and towage units and/or MARINE SPREAD shall carry out rescue and salvage operations to the benefit of the PERSONNEL and material means of the COMPANY INDEMNIFIED PARTIES. Such rescue and salvage operations shall be considered as normal operations of transportation and towage units and/or MARINE SPREAD.
- b) It is expressly agreed that any material means of the COMPANY INDEMNIFIED PARTIES which are salvaged or towed by transportation and/or towage units and/or MARINE SPREAD shall not be subject to salvage CLAIMS by the CONTRACTOR INDEMNIFIED PARTIES.
- c) However, the COMPANY INDEMNIFIED PARTIES shall be responsible for the payments to be made under any legal rights to the Master and Crew and/or MARINE SPREAD in relation to such operations.
- d) The COMPANY shall also pay the T&I CONTRACTOR at the rates of Exhibit B for the time spent by transportation and/or towage units and/or MARINE SPREAD in performing such operations; this latter provision however shall not be construed as applicable to a transportation or a towage operation and/or MARINE SPREAD already commenced by units of the T&I CONTRACTOR under normal conditions and which has subsequently

allegedly developed into a salvage situation. If the CONTRACTOR INDEMNIFIED PARTIES get the benefit of similar rescue services from the COMPANY INDEMNIFIED PARTIES, the T&I CONTRACTOR will reimburse such expenses incurred by the COMPANY under similar provisions.

- e) Transportation and/or towage units and/or MARINE SPREAD shall be entitled at all times to deviate for the purpose of saving life. The Master of vessel and/or MARINE SPREAD shall promptly inform the COMPANY of such deviation.
- f) All salvage proceeds arising out of the saving of third party which is not connected with the COMPANY INDEMNIFIED PARTIES activities shall be divided equally between the COMPANY and the CONTRACTOR INDEMNIFIED PARTIES involved in the salvage operations, after deducting Master's and Crew's share, repair costs sustained by the transportation and/or towage units and/or MARINE SPREAD for the amount mentioned in the award and after reimbursing the COMPANY for one hundred percent (100%) of the operational rates and fuel consumed during salvage of property. Subject as aforesaid, all loss of time incurred in saving or attempting to save life and/or in unsuccessful attempts at salvage shall be borne equally at cost, one half by the COMPANY and the other half by the CONTRACTOR INDEMNIFIED PARTIES involved in the salvage operations.
- g) If salvage operations affect the critical path of the WORK TIME SCHEDULE, as identified in the approved Detailed Work Time Schedule, the T&I CONTRACTOR shall be entitled to request an extension of time according to sub-article 15.5.

37.9.2 In all other circumstances, including transportation by scheduled liner services, all affairs and CLAIMS arising and resulting from the salvage operations shall be settled in accordance with the latest edition of the International Convention on Salvage, 1989.

#### 37.9.3 Labor Claims

All PERSONNEL of the CONTRACTOR INDEMNIFIED PARTIES are under exclusive direction and control of the CONTRACTOR INDEMNIFIED PARTIES. Accordingly, the T&I CONTRACTOR shall be solely liable for, and shall indemnify, defend and hold harmless each member of the COMPANY GROUP from and against, all CLAIMS that relate to employment or labor disputes in connection with the PERSONNEL of CONTRACTOR INDEMNIFIED PARTIES.

### **Article 38 Liabilities towards THIRD PARTIES**

#### **38.1 Damage, Loss, Injury or Death caused by CONTRACTOR INDEMNIFIED PARTIES**

Except as otherwise provided for in article 39, the T&I CONTRACTOR shall indemnify, defend and hold harmless the COMPANY INDEMNIFIED PARTIES from and against any and all CLAIMS, whatsoever arising from and in connection with damage to, or loss of the THIRD PARTY property, and injury to or death of any THIRD PARTY, caused by any of

the CONTRACTOR INDEMNIFIED PARTIES or their property or property under their care, custody or control, and arising out of or in relation to the performance of this CONTRACT.

38.2 Damage, Loss, Injury or Death caused by the COMPANY INDEMNIFIED PARTIES

The COMPANY shall indemnify, defend and hold harmless the CONTRACTOR INDEMNIFIED PARTIES from and against any and all claims, in respect of:

- a) damage to, or loss of THIRD PARTY property and injury to or death of any THIRD PARTY, caused by the COMPANY INDEMNIFIED PARTIES and arising out of or in relation to the performance of this CONTRACT, and
- b) the right of the COMPANY to construct on, over, in or through any land/or water.

**Article 39** **SPECIAL RISKS**

39.1 Definition

SPECIAL RISKS mean:

- a) Reservoir seepage,
- b) Fire, explosion, cratering or blowout in or of a well,
- c) The escape of oil and/or gas from a reservoir, well or pipeline or other existing facilities located on or around the offshore SITE.

In case such an event occurs to a reservoir, well, or a pipe line or other existing facility including the PLANT, owned or operated by the COMPANY or the EXISTING G1/61 OPERATOR or the EXISTING G2/61 OPERATOR near or adjacent to the SITE.

39.2 Damage to the COMPANY and the THIRD PARTY

Notwithstanding sub-article 38.1 above, the COMPANY waives all rights of recourse against the T&I CONTRACTOR and shall hold harmless and indemnify the CONTRACTOR INDEMNIFIED PARTIES from and against any and all claims attributable to any SPECIAL RISKS arising out of the performance of this CONTRACT, howsoever caused, including the negligence of any of the CONTRACTOR INDEMNIFIED PARTIES or any of their PERSONNEL in the performance of the CONTRACT; provided, however, that in the event that any such damage is caused by the CONTRACTOR INDEMNIFIED PARTIES as aforesaid the T&I CONTRACTOR shall be liable for the initial five hundred thousand US Dollars (USD 500,000) of loss, expense and/or damages per occurrence.

39.3 Damage to the T&I CONTRACTOR INDEMNIFIED PARTIES

The foregoing indemnity under sub-article 39.2 shall not apply to

- d) personal injuries, diseases or deaths suffered by PERSONNEL of CONTRACTOR INDEMNIFIED PARTIES and
- e) damage caused to property of CONTRACTOR INDEMNIFIED PARTIES including hired or leased equipment, vessel or craft.

**Article 40** **Special Provisions**

40.1 The provisions set out in articles 36 to 44 shall apply notwithstanding any limit of liability, if any, stipulated in this CONTRACT.



- 40.2 The benefit of the waivers of recourse and of the indemnities and hold harmless provisions provided by one PARTY to the other PARTY in this CONTRACT shall be extended to the insurers and/or underwriters of the other PARTY.
- 40.3 If member of the COMPANY INDEMNIFIED PARTIES is subject to any CLAIMS for which the T&I CONTRACTOR is liable under the CONTRACT, then the T&I CONTRACTOR shall indemnify, defend and hold harmless that member of the COMPANY INDEMNIFIED PARTIES.
- 40.4 The T&I CONTRACTOR shall be responsible for the defense of any CLAIMS brought against any member of the COMPANY INDEMNIFIED PARTIES in respect of which the T&I CONTRACTOR is liable under the CONTRACT and shall satisfy any judgment against any member of the COMPANY INDEMNIFIED PARTIES resulting therefrom. However, the COMPANY shall be entitled to but not obliged to participate in the defense of any CLAIMS to which it or any member of the COMPANY INDEMNIFIED PARTIES is a party without relieving the T&I CONTRACTOR of his responsibility for the defense of that CLAIMS. Upon receiving a notice of any CLAIM brought against it or any member of the COMPANY INDEMNIFIED PARTIES, the COMPANY shall promptly deliver the full particulars of that CLAIMS to the T&I CONTRACTOR and shall render all reasonable assistance that the T&I CONTRACTOR requests in the defense of the CLAIMS.
- 40.5 The T&I CONTRACTOR shall not, without the written consent of the COMPANY, settle any CLAIMS or suit or consent to the entry of any judgment with respect thereto that may materially and adversely affect the reputation of the COMPANY INDEMNIFIED PARTIES or the COMPANY INDEMNIFIED PARTIES are or would be commercially prejudiced in the COMPANY INDEMNIFIED PARTIES's reasonable opinion (other than as a result of money damages covered by the indemnity).
- 40.6 The provisions of sub-articles 40.3 and 40.4 shall apply vice versa in case of a CLAIMS against the CONTRACTOR INDEMNIFIED PARTIES in respect of which the COMPANY is liable under the provisions of articles 37, 38 and 39.
- 40.7 To the extent permitted by laws, all exclusions and indemnities given under articles 37, 38 and 39 and elsewhere in this CONTRACT (save for those which specifically state otherwise) shall apply irrespective of cause and notwithstanding the negligence, breach of duty (whether statutory or otherwise) or other failure of any nature of the indemnified party or any other entity and shall apply irrespective of any CLAIM under contract or otherwise at law.

**Article 41 Insurances to be placed by the T&I CONTRACTOR**

The T&I CONTRACTOR, at his own cost and expense, shall obtain and maintain and cause his SUBCONTRACTOR to obtain and maintain in full force and effect throughout the duration of this CONTRACT on a PHASE by PHASE basis, and any extensions thereof, until:

- a) the date on which all T&I CONTRACTOR ITEMS, T&I CONSTRUCTION EQUIPMENT and other things used by the CONTRACTOR INDEMNIFIED PARTIES have been removed from the SITES, or
- b) the date on which all PERSONNEL of the CONTRACTOR INDEMNIFIED PARTIES have finally departed there from at the end of the applicable WARRANTY PERIOD as provided in article 20,

whichever is the later date, or such other date as stated hereinafter, the following insurances for specified amounts or their equivalent in another currency acceptable to the COMPANY.

It being understood that the specified risks may be covered by insurance policies in a different way from those indicated below provided such is approved by the COMPANY and that all the specified risks are properly covered.

The insurance amounts indicated here below are minimum requirements and not limits of liability, and they are not to be construed as the COMPANY's consent to substitute its financial liability in excess of the amounts set forth except as otherwise agreed in this CONTRACT.

41.1 Workmen's Compensation Insurance

Workmen's compensation insurance to comply fully with the limits and provisions of the APPLICABLE LAWS and agreements made with the CONTRACTOR's PERSONNEL.

41.2 Employer's Liability Insurance

Employer's Liability Insurance into include coverage for legal expenses anywhere in the world, with a limit of not less than ten million US Dollars (USD 10,000,000.00) per occurrence or, the limit required by the APPLICABLE LAWS, whichever is higher.

Such insurance shall be endorsed to the effect that CLAIMS formulated by the CONTRACTOR PERSONNEL against the COMPANY shall be treated as CLAIMS against the CONTRACTOR and compensated by such insurance.

41.3 Comprehensive General Third Party Liability Insurance

Comprehensive General Third Party Liability Insurance, including Pollution Insurance, with a limit of not less than fifteen million US Dollars (USD 15,000,000.00) combined single limit any one occurrence.

If not otherwise covered, this insurance must include, with a separate limit and for same amount, a coverage for operations in respect of raising and removal of sunken objects or craft, wreckage or debris in connection with the performance of this CONTRACT.

41.4 Protection and Indemnity Insurance

Protection and Indemnity Insurance, including oil pollution liability, with a member of the International Group of Protection and Indemnity Clubs or the equivalent, in respect of each vessel or water craft owned and/or employed in operations under this CONTRACT by the CONTRACTOR in an amount at least equal to the greater of:

- a) the full value of each such vessel,
- b) the full amount required by APPLICABLE LAWS limiting ship owner's liability, or
- c) the sum of ten million US Dollars (USD 10,000,000.00), but with respect to construction and pipe lay vessels in the amount of fifteen million US Dollars (USD 15,000,000.00).

This cover may exclude liability to the employees and crew members of insured vessels or water craft of the T&I CONTRACTOR provided that the insurance described in sub-article 41.2 above is warranted to fully cover the T&I CONTRACTOR's liability to his employees and such crew members.

For vessels chartered by the T&I CONTRACTOR and if not covered by Comprehensive General Third Party Liability Insurance as provided in sub-article 41.3 above, the T&I

CONTRACTOR shall obtain Charterer's Liability Insurance on similar conditions to those available from members of the International Group of Protection and Indemnity Clubs or the equivalent and for an amount at least equal to the greater of the above described limits.

Where such vessels are engaged in towing operation, the insurance shall include full towage liability cover.

41.5 Automobile Public Liability Insurance

Automobile Public Liability Insurance to cover all automobiles and automotive equipment employed, if any, by the T&I CONTRACTOR (whether as owner or hirer or otherwise) in operations under this CONTRACT for not less than the amount required by the APPLICABLE LAWS or one million US Dollars (USD 1,000,000.00) combined single limit per occurrence, whichever is higher.

In case that the Automobile Public Liability Insurance cannot cover automotive equipment, the T&I CONTRACTOR shall ensure that liability resulting from such automotive equipment be covered under sub-article 41.3.

41.6 Aircraft Liability Insurance (If Applicable)

Aircraft Liability Insurance (If Applicable) covering all aircraft including helicopters owned and/or employed, if any, in operations under this CONTRACT by the T&I CONTRACTOR, for no less than five million United States Dollars (USD 5,000,000.00) in respect of general liability and as required by the applicable laws and/or International Conventions or one hundred thousand US Dollars (USD 100,000.00) per seat whichever is the higher, in respect of passengers.

For all aircraft chartered by the T&I CONTRACTOR for use in connection with this CONTRACT, the T&I CONTRACTOR shall obtain Charterer's Liability Insurance if not already covered by Comprehensive General Third Party Liability Insurance defined under sub-article 41.3 above.

41.7 Hull and Machinery

Hull and Machinery, on the latest American Institute Hull clauses, Institute Time clauses or equivalent and possibly Increased Value Insurance covering all marine vessels or water craft owned and/or operated by or for the T&I CONTRACTOR, to the full value of each such vessel and including full collision liability cover.

This insurance shall be arranged with a deductible of not more than five hundred thousand US Dollars (USD 500,000.00) for each accident or as otherwise agreed by the COMPANY.

41.8 All Risk Insurance T&I CONSTRUCTION EQUIPMENT

to cover the full value of all T&I CONSTRUCTION EQUIPMENT used by the T&I CONTRACTOR for the performance of the T&I WORK. The T&I CONTRACTOR may at his option insure such T&I CONSTRUCTION EQUIPMENT under the Hull and Machinery Insurance outlined in sub-article 41.7.

The above insurance shall be arranged subject to a deductible of not more than one hundred thousand US Dollars (USD 100,000.00) for each accident or as otherwise agreed by the COMPANY.

41.9 All Risk Insurance CONTRACTOR ITEMS

All Risk Insurance to cover the full value of all CONTRACTOR ITEMS from the EFFECTIVE DATE up to and including safe delivery and unloading at the WORKSITE on a PHASE by PHASE basis.

This insurance shall be arranged subject to a deductible of not more than one hundred thousand US Dollars (USD 100,000.00) for each accident or as agreed by the COMPANY.

**Article 42 Special Provisions with respect to T&I CONTRACTOR's Insurances**

42.1 Deductibles under the T&I CONTRACTOR's Insurances

All the deductibles applicable to the foregoing insurances to be placed by the T&I CONTRACTOR under article 41 with or without the specific consent of the COMPANY shall be for the sole account of the T&I CONTRACTOR.

42.2 Waiver of Insurers Rights of Subrogation

Except for Workmen's Compensation Insurance all T&I CONTRACTOR's insurances referred to in article 41 shall contain provisions whereby the insurers waive their rights of subrogation against the COMPANY INDEMNIFIED PARTIES, other parties bound by the "Mutual Indemnity and Waiver of Recourse Agreement" referred to in sub-article 37.7, and their respective insurers in accordance with the liabilities assumed by the T&I CONTRACTOR under the provision of articles 37 and 38.

42.3 COMPANY as Additional Assured or Co-insured

- a) The Comprehensive General Third Party Liability Insurance referred to in sub-article 41.3 shall be endorsed with the COMPANY as "additional assured" insofar as the COMPANY is held liable to pay for CLAIMS which according to the CONTRACT have to be borne by the CONTRACTOR INDEMNIFIED PARTIES.
- b) The Protection and Indemnity Insurance, the Automobile Public Liability Insurance and the Aircraft Liability Insurance shall be endorsed with COMPANY as "co-insured" or "protective co assured" or "additional assured" insofar as the COMPANY is held liable to pay for CLAIMS which according to this CONTRACT have to be borne by the CONTRACTOR INDEMNIFIED PARTIES.
- c) The Comprehensive General Third Party Liability Insurance, the Protection and Indemnity Insurance, the Automobile Public Liability Insurance and the Aircraft Liability Insurance shall be primary insurance for all additional assured and co-insured parties and other insurance carried by the COMPANY shall not be called upon by T&I CONTRACTOR's underwriters and/or insurers to contribute or participate on the basis of contributing, concurrent, double insurance or otherwise, except as otherwise agreed in this CONTRACT.

42.4 Cross Liability and Other Provisions

42.4.1 Cross Liability

The Comprehensive General Third Party Liability Insurance referred to in sub-article 41.3 shall contain a cross liability clause so that the COMPANY and the T&I CONTRACTOR are regarded as third parties to each other and shall be valid anywhere in the world.

#### 42.4.2 Other Provisions

The T&I CONTRACTOR, as soon as he is aware of any circumstances which may give rise to a claim under the insurances placed by the T&I CONTRACTOR shall give written notice of such circumstances to his underwriters and/or insurers in accordance with the requirements of such insurance policies with copy to the COMPANY.

The notification shall make reference to COMPANY's interest in respect of CLAIMS against it arising out of liabilities accepted by the T&I CONTRACTOR and his SUBCONTRACTOR under this CONTRACT except for Employer's liability insurance.

#### 42.5 Insurance Certificates

Insurances placed by the T&I CONTRACTOR shall contain the following statements (or words to similar effect):

- a) For all insurances except Workman's Compensation Insurance.

*"This policy is endorsed to the effect that insurers waive all rights of subrogation against (name of COMPANY) and its co-venturers in the operations provided for under its contract with (name of T&I CONTRACTOR) dated ..... and against such other contractors of (name of COMPANY) who have signed the "Mutual Indemnity and Waiver of Recourse Agreement" provided for in sub-article 37.7 of said contract and in accordance with the liabilities assumed by the T&I CONTRACTOR under the provisions of articles 37 and 38 of said contract. This waiver of subrogation rights extends to the benefit of the insurers of the abovementioned parties."*

- b) For insurances where COMPANY is required to be an "additional assured."

*"This policy is primary insurance for all additional assured / co insured parties (delete as appropriate) and other insurance carried by (name of COMPANY) and its associates shall not be called upon to contribute or participate on the basis of contributing, concurrent, double insurance or otherwise."*

- c) The Employers Liability Insurance shall contain the endorsement:

*"This policy is endorsed to the effect that claims for which (name of the T&I CONTRACTOR) is liable under the contract with (name of the COMPANY) dated ..... formulated by the personnel of (name of the T&I CONTRACTOR) against (name of the COMPANY), its affiliates, and/or other contractors and SUBCONTRACTORS of (name of the COMPANY) shall be treated as claims against (name of the T&I CONTRACTOR) and compensated by such insurances."*

- d) For insurances where the COMPANY is required to be a "co- assured" or "additional assured" or "protective co-assured"

*"This policy is endorsed to the effect that (name of the COMPANY) and its affiliates in the operations provided for under its contract with (name of the CONTRACTOR) dated ..... are "co-insured" or "additional-assured" or "protective co-assured" in respects of claims and/or damages and/or losses arising out of liabilities accepted by (name of the CONTRACTOR) and his SUBCONTRACTORS under said contract."*

42.6 COMPANY's Right to Examine the T&I CONTRACTOR's Insurances

The T&I CONTRACTOR warrants and represents that all his insurances pertaining to this CONTRACT comply with the provisions of article 41 and of this article 42.

Before commencing the T&I WORK for a PHASE the T&I CONTRACTOR shall provide copy insurance certificates for all the insurances the T&I CONTRACTOR is to obtain as per the terms of this CONTRACT.

The T&I CONTRACTOR shall, if requested, permit the COMPANY to examine original insurance policies and/or insurance certificates issued in compliance with the requirements hereunder. Should the T&I CONTRACTOR at any time neglect or refuse to provide any of the above or if any of the insurances described in article 41 or should such insurance be cancelled or terminated or substantially reduced, the COMPANY shall have the right, but not the obligation to procure the same and the cost thereof shall be deducted from any sums due or thereafter becoming due to the T&I CONTRACTOR.

Any additional cost involved for the COMPANY in procuring such insurance, or loss due to the fact that the T&I CONTRACTOR neglected or refused to provide the insurance or that the insurance is cancelled or terminated or substantially reduced, shall be for T&I CONTRACTOR's account.

42.7 COMPANY Rights not Limited by Insurances

The provision of insurance certificates to the COMPANY or any examination of original policies under the provisions of sub-article 42.6 shall not limit the COMPANY's rights there under and shall not be a defense to any CLAIMS by the COMPANY against the T&I CONTRACTOR.

42.8 T&I CONTRACTOR Compliance with Insurance Conditions / Warranties

The T&I CONTRACTOR shall comply at all times with all conditions and warranties included in all insurance described under article 41.

42.9 SUBCONTRACTOR Working on the WORKSITE

The provisions of articles 36 - 44, applicable to the T&I CONTRACTOR, shall be applicable to SUBCONTRACTOR. The T&I CONTRACTOR shall be liable towards the COMPANY INDEMNIFIED PARTIES for any absence or insufficiency of the insurances of SUBCONTRACTOR.

42.10 Cancellation or Reduction of T&I CONTRACTOR Insurances

The CONTRACTOR shall represent and warrant that the insurance policies provided under this CONTRACT shall not lapse nor shall the guarantee hereunder be substantially reduced without two (2) months prior written notice to the COMPANY and without prejudice to the provisions of sub-article 42.6.

**Article 43 Insurance to be placed by the COMPANY**

43.1 General

The COMPANY, at no cost or expense to the T&I CONTRACTOR, shall place or cause to be placed and maintain or cause to be maintained, the following insurance on a PHASE by PHASE basis.

43.2 Construction All Risk Insurance

Construction All Risk Insurance, covering the PLANT and the major PLANT COMPONENTS and related items under, or in course of construction, including whilst in transit between any WORKSITES on board either airborne, waterborne or land conveyance and including loading and unloading from such conveyance, in the amount of replacement value thereof, against all risks of physical loss or damage, including the cost of debris removal until the effective date of the last PROVISIONAL ACCEPTANCE CERTIFICATE for each PHASE and covering further during the WARRANTY PERIOD for such PHASE, but for no more than twelve (12) months after the effective date of the last PROVISIONAL ACCEPTANCE CERTIFICATE for the PHASE:

- a) damage caused to the PLANT and/or applicable COMPANY ITEMS by CONTRACTOR INDEMNIFIED PARTIES during maintenance visits and,
- b) damage to the PLANT resulting from faulty design, workmanship and materials subject to the provisions of sub-article 44.3.

For the Construction All Risk Insurance to be obtained as above the COMPANY will use Welcar 2001 Offshore Construction Policy Form or other suitable Policy Form, suitably amended after negotiation with Insurer. The COMPANY will not provide T&I CONTRACTOR with a copy.

43.3 COMPANY's Insurance for CONTRACTOR ITEMS and the COMPANY ITEMS

For all CONTRACTOR ITEMS supplied by the T&I CONTRACTOR, the insurance mentioned in sub-article 43.2 shall become effective as of safe delivery once unloading ex-conveyance at the WORKSITE is completed. For all COMPANY ITEMS, such insurance shall be effective during transportation to the WORKSITE.

43.4 Warranty Clause of the COMPANY Insurance Coverage

The Construction All Risk Policy mentioned in sub-article 43.2 may contain a warranty clause to which the T&I CONTRACTOR shall strictly comply, providing for specific Warranty Surveyors and specific warranty requirement. The COMPANY shall inform the T&I CONTRACTOR in due time of the specific content of any such warranty clause. The T&I CONTRACTOR shall liaise and coordinate with the selected Warranty Surveyor(s). The T&I CONTRACTOR shall moreover keep the COMPANY informed of any difficulties that may arise in relation to the warranty requirements of the Warranty Surveyor(s).

**Article 44 Special Provisions with respect to Policies to be placed by COMPANY**

44.1 CONTRACTOR INDEMNIFIED PARTIES as Additional Assureds

Subject to the provisions of sub-article 44.3, the COMPANY shall cause the CONTRACTOR INDEMNIFIED PARTIES to be included as additional assured and covered to the extent provided hereunder by the insurance described in sub-article 43.2 above and shall cause the Insurers thereof to waive any and all rights of subrogation against such parties and their insurers.

44.2 Deductibles and Losses to be borne by the T&I CONTRACTOR

The abovementioned insurance is subject to deductibles which shall be borne by the T&I CONTRACTOR when the CONTRACTOR INDEMNIFIED PARTIES is liable as per sub-article 37.1, up to:

- a) any one accident or occurrence in respect of transportation risks (other than by barge): five hundred thousand US Dollars (USD 500,000),
- b) any one accident or occurrence in respect of procurement and all other onshore risks including onshore fabrication: five hundred thousand US Dollars (USD 500,000),
- c) any one accident or occurrence in respect of storage onshore: one hundred fifty thousand US Dollars (USD 150,000),
- d) any one accident or occurrence in respect of all marine transit including loading and unloading, local towage and trans-ocean towage, float over and heavy lift operations and movements to the final offshore SITE, offshore installation, including subsequent maintenance: one million US Dollars (USD 1,000,000),
- e) any one accident or occurrence in respect of installation of surface facilities and during their WARRANTY PERIOD: one million United States Dollars (USD 1,000,000),
- f) any one accident or occurrence in respect of installation of all subsea equipment, including pipelines, subsequent maintenance, and during their WARRANTY PERIOD: one million US Dollars (USD 1,000,000),
- g) any one accident or occurrence in respect of stand by charges up to seventy two (72) hours.
- h) any one accident or occurrence in respect of all other losses, all other operations/work not otherwise specified above including existence and subsequent maintenance: five hundred thousand US Dollars (USD 500,000).
- i) In respect of defective parts per occurrence and per part: five hundred thousand US Dollars (USD 500,000).

In addition, the T&I CONTRACTOR shall bear the full loss or cost of making good damage when the CONTRACTOR INDEMNIFIED PARTIES is liable as per sub-article 37.1 in case of losses not recoverable from the insurance provided by the COMPANY as per sub-article 43.2 due to the standard exclusions, conditions, limits and sub-limits or in case of non-compliance with the warranty clause referred to in sub-article 43.3.

#### 44.3 Restrictions of the COMPANY's Insurance

The insurance mentioned in sub-article 43.2 shall not provide coverage to the benefit of the CONTRACTOR INDEMNIFIED PARTIES for cost of repairing or replacing the defective part of the PLANT to the extent of his obligation under article 20 in case of faulty conception, design, workmanship or material attributable to the CONTRACTOR INDEMNIFIED PARTIES.

#### 44.4 COMPANY's Insurance not a Limitation of T&I CONTRACTOR's Liabilities

The placing by the COMPANY of the insurance mentioned in sub-article 43.2 shall by no means be construed as a limitation of T&I CONTRACTOR's liabilities, except as otherwise agreed in this CONTRACT.

#### 44.5 T&I CONTRACTOR's Third Party Liability on the SITE

In addition, the policy provided for in sub-article 43.2 shall incorporate comprehensive general third party liability insurance which may be invoked to the benefit of the CONTRACTOR INDEMNIFIED PARTY until the effective date of the last PROVISIONAL ACCEPTANCE CERTIFICATE of the final PHASE required by the COMPANY under this CONTRACT, but solely on the SITE and excluding collision liability and only after T&I CONTRACTOR's own policies have been called upon to the



full extent of the indemnity they shall provide for as stipulated in article 41, which policies shall always be underlying insurance to policies placed by the COMPANY, subject however to the stipulations of sub-article 38.1.

In case the T&I CONTRACTOR fails to carry out comprehensive general third party liability Insurance as per the terms and conditions mentioned under sub-articles 41.3, 41.4, 41.5 and 41.6, the T&I CONTRACTOR shall have the benefit of the comprehensive general third party liability coverage of the policy mentioned in sub-article 43.2 only in excess of the minimum amounts of insurance required under sub-articles 41.3, 41.4, 41.5 and 41.6 subject however to the stipulations of sub-article 38.1.

44.6 Insurance Claims

The T&I CONTRACTOR shall promptly and accurately report to the COMPANY all events, damages or losses occurring during the performance of the T&I WORK which are likely to give rise to an insurance claim under the insurance mentioned in sub-article 43.2.

The T&I CONTRACTOR shall process insurance claims as per the Insurance Claims Procedure enclosed in Exhibit G and shall extend his full cooperation to the COMPANY to prepare and submit COMPANY's insurance claims.

Notwithstanding the foregoing, the COMPANY may elect at its sole discretion to let the T&I CONTRACTOR submit and substantiate his claims directly against insurers and be paid by them.

44.7 Compensation for Repair Work

With regard to repair and/or replacement of loss and/or damage performed by the T&I CONTRACTOR pursuant to sub-article 37 ("Repair Work") and except for insurance claims paid directly by insurers as per sub-article 44.6, the T&I CONTRACTOR shall be compensated for valid insurance claim(s) made under the COMPANY's article 43 Construction All Risk Insurance Policy by means of a CHANGE ORDER.

Any such CHANGE ORDER shall be evaluated in accordance with the terms and requirements of sub-article 22.3, Exhibit B and the other terms and requirements of this CONTRACT. Any such CHANGE ORDER shall be subject to the deductibles and provisions of sub-article 44.2 except as is provided in sub-articles 37.1.1 c) and 37.1.2 c).

In respect of any such CHANGE ORDER the T&I CONTRACTOR will only be paid by the COMPANY after the COMPANY has been paid by its Insurers, including payment on account (if any) granted by COMPANY'S Insurers at T&I CONTRACTOR'S request.

Any and all delays in obtaining response and/or decisions from the Insurers concerning validity of any and all insurance CLAIM in full or in part, under the article 43 Construction All Risk Insurance policy, and/or payment under the said policy shall not be reason for the T&I CONTRACTOR to delay the performance of the related repair and/or replacement of the applicable loss and/or damage.

For clarity this sub-article 44.7 shall not apply when the T&I CONTRACTOR shall submit and/or substantiates his claims directly against Insurers and be paid by them.

Subject to the foregoing, payment of the T&I CONTRACTOR's invoices in connection with any CHANGE ORDER for satisfactorily completed Repair Work shall be made in accordance with sub-article 32 including the additional period stated therein for review and checking of such invoices and substantiation by the COMPANY.

However, if the T&I CONTRACTOR is liable for such damage or loss as per sub-article 37.1, any such CHANGE ORDER evaluation shall be subject to a five percent (5%) reduction. The COMPANY shall compensate the T&I CONTRACTOR only when the insurance claim has been paid by the COMPANY'S Insurers, including any payment on account granted by COMPANY'S Insurers at the T&I CONTRACTOR's request. This provision shall not apply when the COMPANY has elected to let the T&I CONTRACTOR submit and substantiate his claims directly against Insurers and be paid by them.

44.8 Waiver of Insurers Rights of Subrogation

Without prejudice to the provisions of sub-article 44.1 with respect to the Construction All Risk Insurance as described under sub-article 43.2, any insurance policies maintained by the COMPANY shall contain provisions that Insurers shall waive their rights of subrogation against the CONTRACTOR INDEMNIFIED PARTIES and their respective insurers to the extent of the indemnities given by the COMPANY to the CONTRACTOR INDEMNIFIED PARTIES within articles 37 to 44.

**Article 45 INTELLECTUAL PROPERTY RIGHTS and Patent Infringement**

45.1 INTELLECTUAL PROPERTY RIGHTS

45.1.1 INTELLECTUAL PROPERTY RIGHTS existing prior to the EFFECTIVE DATE

Subject to the provisions of sub-article 45.1.4, the COMPANY and the T&I CONTRACTOR shall retain any right, title or interest in their respective INTELLECTUAL PROPERTY RIGHTS developed, acquired or obtained prior to the EFFECTIVE DATE with respect to the T&I WORK, the PLANT and/or this CONTRACT.

45.1.2 T&I CONTRACTOR-Owned INTELLECTUAL PROPERTY RIGHTS

Any right, title or interest in INTELLECTUAL PROPERTY RIGHTS developed, acquired or obtained after the EFFECTIVE DATE in connection with the T&I WORK, the PLANT and/or this CONTRACT shall belong to the T&I CONTRACTOR only if it is derived wholly or mainly from technical concepts or technical information provided by the T&I CONTRACTOR and which have not been specifically produced, prepared, developed and/or furnished for the T&I WORK and/or the PLANT.

45.1.3 COMPANY-Owned INTELLECTUAL PROPERTY RIGHTS

Any right, title or interest in INTELLECTUAL PROPERTY RIGHTS developed, acquired or obtained in connection with the T&I WORK, the PLANT and/or this CONTRACT shall belong to the COMPANY or any person designated by the COMPANY at its sole discretion:

- a) if it is based wholly or mainly on technical concepts or technical information provided by the COMPANY, or
- b) if it has been developed, acquired, or obtained after the EFFECTIVE DATE and is based wholly or mainly upon technical concepts or technical information of both the COMPANY and the T&I CONTRACTOR, which are produced, prepared, developed and/or furnished pertaining to the T&I WORK and/or the PLANT in relation to or as a RESULT OF THE WORK.

The T&I CONTRACTOR shall notify the COMPANY as soon as such right, title or interest is made or obtained. The COMPANY shall at its own discretion file applications for patents relating to any and all inventions arising out of or in connection with the T&I WORK and/or the PLANT and shall bear alone all expenses related to the filing, defense and maintenance of any patent under this sub-article 45.1.3.

45.1.4 COMPANY RIGHTS with respect to T&I CONTRACTOR-Owned INTELLECTUAL PROPERTY RIGHTS

For the purpose of the T&I WORK and the operation and maintenance of the PLANT, together with the right to export, sell and use in any country the products of the PLANT, the T&I CONTRACTOR shall grant, or have granted, to the COMPANY, the CO-VENTURERS, its/their AFFILIATES, successors and assignees, an irrevocable world-wide royalty free and non-exclusive license to use, or have used, any INTELLECTUAL PROPERTY RIGHTS in T&I CONTRACTOR's possession upon the EFFECTIVE DATE as well as any T&I CONTRACTOR owned INTELLECTUAL PROPERTY RIGHTS developed, acquired or obtained under the provision of sub-article 45.1.2.

The T&I CONTRACTOR shall obtain from his CO-VENTURER, if any, and from his AFFILIATES and SUBCONTRACTOR, the same undertaking.

45.1.5 EXISTING OPERATORS Owned INTELLECTUAL PROPERTY RIGHTS

All INTELLECTUAL PROPERTY RIGHTS and all other rights in relation to the EXISTING OPERATORS' information are owned exclusively by the EXISTING OPERATORS. If T&I CONTRACTOR learns, discovers, develops, or creates any intellectual property or other rights arising out of information owned by the EXISTING OPERATORS, those rights are the exclusive property of the EXISTING OPERATORS and constitute information of the EXISTING OPERATORS.

45.2 Patent Infringement

For the purpose of these provisions, the COMPANY shall include the CO-VENTURERS and their AFFILIATES, successors and assignees.

45.2.1 Patent Infringement Indemnification

The T&I CONTRACTOR shall indemnify, defend and hold harmless the COMPANY against any CLAIMS which may be brought against the COMPANY at any time from any source of infringement of any patents allegedly relating to:

- a) the use, design, composition, mode of fabrication, or other particulars of any one or more of the elements of the PLANT, or any combination thereof, or any part thereof, furnished by the T&I CONTRACTOR and/or SUBCONTRACTOR, and/or
- b) the use of any raw materials, composition of matter, fabrication procedure, heat treatment or other things entering into the construction of the PLANT, or any part thereof furnished or used by the T&I CONTRACTOR and/or SUBCONTRACTOR, and/or

- c) the use of any construction methods, tools, machines, or the construction devices used by the T&I CONTRACTOR and/or SUBCONTRACTOR in the performance of the T&I WORK, and/or
- d) the export, sale and use in any country of the products of the PLANT.

#### 45.2.2 T&I CONTRACTOR's Defense of the COMPANY

Unless otherwise instructed by the COMPANY, the T&I CONTRACTOR shall defend the COMPANY against such CLAIMS on COMPANY's behalf.

In the event that such defense is conducted by the T&I CONTRACTOR, the COMPANY shall have the right to be represented by a counsel of its own choice and shall co-operate fully in the defense of any such CLAIMS and shall provide all evidence in its control.

Whether such defense is conducted by the COMPANY or the T&I CONTRACTOR, the T&I CONTRACTOR shall pay all costs and expenses including those of experts and/or counsels fees, and the T&I CONTRACTOR shall also hold harmless the COMPANY from all expenses incurred, or damages or other sums awarded or assessed against the COMPANY in any such CLAIMS.

#### 45.2.3 Elimination of Source of Infringement

In connection with any CLAIMS referred to above the T&I CONTRACTOR shall be entitled at his own cost and expense to:

- a) acquire immunity from any patent infringement CLAIMS, and/or
- b) acquire license under the patents on which such CLAIMS is based, for the design, construction, operation, maintenance or use of the PLANT by the COMPANY, and/or
- c) make such alterations as may be required to eliminate the alleged infringement, subject to prior approval; it being agreed that any refusal made by the COMPANY shall not impair or affect in any way its rights under article 46 and that any approval shall not imply acceptance by the COMPANY of alterations that could themselves prove to be infringements at any time.

#### 45.2.4 Notice of Potential Infringement Suits

If the T&I CONTRACTOR has, or acquires, knowledge of any patent under which a suit for infringement could reasonably be brought because of the use by the COMPANY of any COMPANY ITEMS and/or processes provided, designed or expressly specified by the COMPANY to be incorporated by the T&I CONTRACTOR in the T&I WORK, and/or the PLANT, the T&I CONTRACTOR shall promptly give notice to the COMPANY of such knowledge.

### 45.3 Compliance with article 45

The T&I CONTRACTOR shall take all necessary appropriate actions to ensure that his PERSONNEL, AFFILIATES and SUBCONTRACTOR adhere to and comply with the provisions of article 45.

**Article 46 Title on Documents and Items**

46.1 Title on COMPANY Supplied Documents and the COMPANY ITEMS

a) Property Rights on COMPANY supplied Documents

All COMPANY supplied documents shall remain the property of the COMPANY and shall be returned to the COMPANY by the T&I CONTRACTOR as soon as they are no longer necessary for the performance of the T&I WORK and at the latest, at the time of delivery of the FINAL DOCUMENTATION and in any case prior to issuance of the PROVISIONAL ACCEPTANCE CERTIFICATE.

b) Property Rights on the COMPANY ITEMS

The COMPANY ITEMS (even if combined with the CONTRACTOR ITEMS) shall remain at all times the property of the COMPANY and shall be delivered back to the COMPANY (with said associated CONTRACTOR ITEMS) immediately upon request, regardless of whether the COMPANY has paid or not for related T&I WORK performed by the T&I CONTRACTOR, it being understood that the COMPANY shall have the obligation to pay sums remaining due to the T&I CONTRACTOR in accordance with the provisions of this CONTRACT.

46.2 Title on the T&I CONTRACTOR DOCUMENTS

a) All T&I CONTRACTOR DOCUMENTS which are specific to T&I CONTRACTOR's normal operations and have not been specially developed in connection with the T&I WORK, shall remain the property of the T&I CONTRACTOR.

b) All T&I CONTRACTOR DOCUMENTS, with the exception of the T&I CONTRACTOR DOCUMENTS described in sub-article 46.2 a) shall, as of commencement of the T&I WORK thereon, become COMPANY's property and shall be delivered to the COMPANY immediately upon request.

c) However, the T&I CONTRACTOR shall retain record copies of such documents until the expiry of all of his obligations under this CONTRACT subject to provisions of sub-articles 45.1 and 45.2 and article 47, concerning respectively INTELLECTUAL PROPERTY RIGHTS, Patent Infringement Indemnification and Confidentiality.

The above provisions shall apply mutatis mutandis to the T&I CONTRACTOR DOCUMENTS issued by SUBCONTRACTOR.

46.3 Title on the CONTRACTOR ITEMS

The CONTRACTOR warrants that all CONTRACTOR ITEMS are free of any liens and encumbrances and legal charges.

Without prejudice to any related payment obligations by the COMPANY to the T&I CONTRACTOR, all CONTRACTOR ITEMS shall become the property of the COMPANY through the CONTRACTOR as soon as such are ordered by the CONTRACTOR or SUBCONTRACTOR and become identifiable as being related to the CONTRACT, irrespective of the phase of progress (such as in the course of manufacturing, fabrication, transportation, installation) and notwithstanding any payment consideration (such as non-payment, late payment, disputes on chargeable or invoiced sums or amounts of retention made by the COMPANY under the CONTRACT). Notwithstanding the above,

the risk of the CONTRACTOR ITEMS shall be in accordance with the provisions of sub-article 37.1.

The T&I CONTRACTOR, as a condition for receiving payments under the CONTRACT, shall execute all documents and take all actions required by the COMPANY to vest such property rights in the COMPANY.

The T&I CONTRACTOR shall identify (by marking or any other relevant means of identification) any and all elements of COMPANY's property as per the foregoing provisions, in order to prevent any dispute with third parties. For such purpose, the CONTRACTOR shall identify same in his own premises or in those of SUBCONTRACTOR and shall store same separately, mark or stamp them with COMPANY's name, the CONTRACT reference and any other identification markings required under the CONTRACT.

Notwithstanding the foregoing and subject to the provisions of sub-article 14.5.7 and 14.5.8 with regard to Material Group 1 CONTRACTOR ITEMS, ownership of surplus and scrap CONTRACTOR ITEMS that are not required for the T&I WORK (including scrap and surplus) and which are not required for incorporation into the PLANT or are to be supplied to the COMPANY as ship loose items shall unless otherwise required by the COMPANY shall automatically revert to the T&I CONTRACTOR upon completion of the applicable operations.

The COMPANY shall have the right to refuse, at its sole option, title to any of the same which may be:

- a) not in conformance with the CONTRACT requirements, and/or
- b) vitiated for any reason (such as patent infringement), and/or
- c) incomplete and which could not be completed by another contractor at a reasonable cost, and/or
- d) not required by the COMPANY in the case of termination of this CONTRACT.

For any rejected items under a) and b) here above, the COMPANY shall have the option of:

- a) instructing the T&I CONTRACTOR to replace said items at his own cost, risk and expense, or
- b) withdrawing the related items from the scope of T&I WORK, in which case any sums already paid with respect to such rejected items shall be immediately reimbursed by the T&I CONTRACTOR to the COMPANY.

46.4 Title on the RESULT OF THE WORK and the PLANT

The RESULT OF THE WORK and the PLANT shall remain at all times the property of the COMPANY subject always to the right of the COMPANY to refuse title in accordance with the provisions of sub-article 46.3.

46.5 Title to Discoveries on the SITE

The T&I CONTRACTOR shall have no rights, title or interests whatsoever on, or concerning discovery of minerals and hydrocarbons (and similar substances), fossils, coins, articles of value, antiques, relics, structures and other things of geological or archaeological interest discovered on the SITE.

The T&I CONTRACTOR shall immediately upon discovery of any; minerals and hydrocarbons (and similar substances), fossils, coins, articles of value, antiques, relics,

structures and other things of geological or archaeological interest, inform the COMPANY of such discovery and shall comply with COMPANY instructions arising from and in connection with such discovery. The T&I CONTRACTOR shall be entitled to request a CHANGE ORDER if such instructions lead to additional cost and/or an Extension of Time if as a direct consequence a COMPLETION DATE is delayed. For clarity sunken items as per Exhibit A are not discoveries at the SITE.

The T&I CONTRACTOR shall take all necessary precautions to ensure that his PERSONNEL and that of SUBCONTRACTOR and other persons involved on the SITE do nothing to remove or damage such discoveries and do not retain, encumber or reserve title to such items.

## **Article 47 Confidentiality**

### **47.1 Confidentiality of the CONFIDENTIAL INFORMATION**

47.1.1 The T&I CONTRACTOR shall treat the CONFIDENTIAL INFORMATION as confidential and shall not disclose the CONFIDENTIAL INFORMATION to any person without the prior written consent of the COMPANY.

47.1.2 The T&I CONTRACTOR shall only use, reproduce or copy the CONFIDENTIAL INFORMATION solely for the purpose of facilitating the performance of this CONTRACT.

47.1.3 The obligations under sub-articles 47.1.1 and 47.1.2 do not apply to the CONFIDENTIAL INFORMATION that:

- a) is or becomes available to the public domain through no fault of the T&I CONTRACTOR;
- b) was in the possession of the T&I CONTRACTOR prior to EFFECTIVE DATE of this CONTRACT and that was not subject to any obligation of confidentiality; or
- c) was received from a third party whose possession of such CONFIDENTIAL INFORMATION is lawful and who is under no obligation of confidentiality.

47.1.4 The T&I CONTRACTOR may, without the prior written consent of the COMPANY, disclose the CONFIDENTIAL INFORMATION:

- a) to the SUBCONTRACTOR, VENDOR and the T&I CONTRACTOR's PERSONNEL that reasonably require it for the performance of this CONTRACT, provided the T&I CONTRACTOR shall ensure that the recipients of the CONFIDENTIAL INFORMATION take all necessary measures to protect the confidentiality of the CONFIDENTIAL INFORMATION and comply with this article 47; or
- b) in order to comply with APPLICABLE LAWS provided that the T&I CONTRACTOR shall promptly inform the COMPANY accordingly.

### **47.2 Confidentiality of T&I CONTRACTOR Information**

All information provided by the T&I CONTRACTOR to the COMPANY that the T&I CONTRACTOR wishes to remain confidential shall be clearly marked as being confidential. The COMPANY is nevertheless entitled to use and disclose such information to third parties to the extent necessary for the execution and maintenance of the

COMPANY's operations in connection with which the T&I WORK are to be performed or if required by APPLICABLE LAWS.

47.3 Waiver and Hold Harmless

The T&I CONTRACTOR agrees that, in the event of the CONTRACTOR GROUP's breach, or threatened breach of, the confidentiality provisions of the CONTRACT, the COMPANY would be irreparably and immediately harmed and that monetary damages recoverable under this CONTRACT would be inadequate. Accordingly, in addition to any other remedy to which the COMPANY may be entitled at law or in equity, and notwithstanding any other provision in this CONTRACT:

- a) the COMPANY is entitled to an injunction (without the posting of any bond and without proof of actual damages) to prevent breach, or threatened breach of, or to compel specific performance of, this article 47;
- b) the T&I CONTRACTOR shall not oppose the granting of an injunction; and
- c) the T&I CONTRACTOR will reimburse the COMPANY for all costs, including reasonable legal fees, incurred by the COMPANY.

47.4 Confidentiality Obligations

The obligations of the T&I CONTRACTOR under this article 47 survive the termination and expiration of this CONTRACT.

**Article 48 Defective Performance: Suspension - Termination - Take-over**

48.1 Default or Deficiency of the T&I CONTRACTOR

If the T&I CONTRACTOR should perform the T&I WORK in a manner that is not in conformity with this CONTRACT or in breach of the terms and/or requirements of this CONTRACT, including:

- a) failing to provide sufficient number or properly skilled PERSONNEL,
- b) failing to supply the sufficient or proper CONTRACTOR ITEMS and/or the T&I CONSTRUCTION EQUIPMENT,
- c) failing in any respect to carry out the T&I WORK in an efficient, workmanlike, skillful and careful manner in accordance with the terms and requirements of this CONTRACT.
- d) failing to commence the T&I WORK in accordance with the WORK TIME SCHEDULE,
- e) failing to make adequate and timely progress of the T&I WORK, in order to meet the requirements of the WORK TIME SCHEDULE and the Detailed Work Time Schedule, including failure to achieve milestones set forth within Exhibit C, other than for reasons set out in sub-article 15.5 (Extension of Time),
- f) abandoning the T&I WORK or any part of the T&I WORK, at any time,
- g) hindering in any way the monitoring of the performance of this CONTRACT or T&I WORK by the COMPANY REPRESENTATIVE,
- h) assigning or subcontracting this CONTRACT or part thereof in contrary to the provisions of articles 10 and 11 respectively,
- i) failing to comply with the SSHE requirements in Exhibit L,
- j) failing to comply with the provisions of article 52 (Conflict of Interest),



- k) failing to provide, or provide in a timely manner required, and/or necessary MARINE SPREAD,
- l) breach of obligations under sub-article 23.1 (Compliance with the APPLICABLE LAWS).

The COMPANY shall have the right to notify the T&I CONTRACTOR at any time of such default(s) and to require the T&I CONTRACTOR to take such remedial actions to rectify and/or mitigate such defaults and/or the impact thereof within such time limit(s) as the COMPANY may direct.

The T&I CONTRACTOR shall immediately implement, at no cost to the COMPANY, all required and necessary actions to remedy and/or mitigate such defaults including re-performance of T&I WORK, within the limits as the COMPANY may direct.

If the COMPANY considers actions proposed and/or implemented by the T&I CONTRACTOR to be inadequate or insufficient, the COMPANY shall have the right to require the T&I CONTRACTOR to take specific remedial actions at no extra cost to the COMPANY. The foregoing right is without restriction and/or limitation and is in addition to the COMPANY rights under article 15.

The T&I CONTRACTOR shall keep the COMPANY fully informed on a regular basis at time intervals stipulated by the COMPANY of actions proposed, implemented, the effects thereof and anything else requested by the COMPANY.

48.2 Rights of the COMPANY in case of the T&I CONTRACTOR's Continued Default

If the T&I CONTRACTOR fails to remedy any or all defaults listed at sub-article 48.1 a) to l) within an applicable time limit directed by the COMPANY, the COMPANY shall have the right at any time and at its sole option and decision to:

- a) continue to require the T&I CONTRACTOR to remedy the defects and deficiencies in full or in part, and/or
- b) suspend performance of any part or parts of the T&I WORK wholly or in part in accordance with sub-article 48.3, pending the remedying of the defects and deficiencies, and/or
- c) take over from the T&I CONTRACTOR, any or all parts of the T&I WORK affected by such default or deficiency and to remedy the defects and deficiencies and complete such parts of the T&I WORK, at the cost of the T&I CONTRACTOR, by whatever method the COMPANY deems expedient, including the use of any third parties, and/or
- d) call upon the Performance Bank Guarantee in accordance with sub-article 33.1 and to call upon the parent company guarantee (if any), and/or
- e) terminate this CONTRACT in full or in part, in accordance with sub-article 48.4.

The T&I CONTRACTOR shall not be entitled to any additional compensation nor Extension of Time(s), for any all matters arising from and/or in connection with the remedying of defects and deficiencies nor for the consequences of the COMPANY instructions issued pursuant to sub-article 48.2 a), b), c), d) and e).

The initial CONTRACT PRICE shall be adjusted (reduced) for costs and expenses incurred by the COMPANY for and/or in connection and those arising from actions taken by the COMPANY as per sub-article 48.2 c).

48.3 Suspension of the T&I WORK for Default of the T&I CONTRACTOR

If the performance of the T&I WORK or any part thereof, is suspended by notice issued pursuant to sub-article 48.2 b), the T&I CONTRACTOR shall immediately suspend T&I WORK as aforesaid.

Such suspension shall not relieve the T&I CONTRACTOR from any of his obligations and liabilities under this CONTRACT.

The T&I CONTRACTOR shall ensure that all parts of the PLANT affected by such suspension shall be protected and preserved also that the RESULT OF THE WORK, CONTRACTOR ITEMS, COMPANY ITEMS, T&I CONSTRUCTION EQUIPMENT and all other things, affected by such suspension are stored, protected and preserved until the default has been rectified or such other earlier date the COMPANY may agree.

All costs and expenses arising from and in connection with the suspension of T&I WORK, including standby, mobilization and demobilization, storage, protection and preservation, shall be borne by the T&I CONTRACTOR.

48.4 Termination of CONTRACT for Default of T&I CONTRACTOR

48.4.1 Conditions for Termination for Default

- a) If the T&I CONTRACTOR does not rectify a default within the time limits stipulated by the COMPANY pursuant to COMPANY's rights under sub-article 48.1, the COMPANY may at its sole option and decision terminate the CONTRACT in full or in part by written notice to the T&I CONTRACTOR.
- b) The COMPANY shall also have the right to terminate this CONTRACT, without further notice:
  - i) if the T&I CONTRACTOR does not provide a satisfactory Performance Bank Guarantees as per sub-article 33.1, or
  - ii) if the T&I CONTRACTOR does not provide a satisfactory Parent Company Guarantee as per sub-article 33.2, or
  - iii) if it appears that during the periods specified above, the T&I CONTRACTOR has taken actions (such as withdrawing the T&I CONSTRUCTION EQUIPMENT or manpower) or committed new defaults likely to adversely affect COMPANY's interests, or
  - iv) if, in COMPANY's opinion, T&I CONTRACTOR's breach of this CONTRACT or default appears to be incapable of being remedied or being repaired within a reasonable period of time.
- c) Subject to implementation of applicable laws or any similar or equivalent procedure under APPLICABLE LAWS, the COMPANY shall also have the right to immediately terminate this CONTRACT by written notice to the T&I CONTRACTOR whenever the T&I CONTRACTOR (or any company or juristic person composing the T&I CONTRACTOR when the T&I CONTRACTOR is an association of companies):
  - i) becomes Bankrupt or insolvent,
  - ii) has a receiving order made against him,
  - iii) has a resolution for its voluntary winding up passed,

- iv) makes an arrangement or composition with (or assignment in favour of) his creditors,
- v) agrees to carry out this CONTRACT under a committee of inspection of his creditors,
- vi) has a provisional liquidator, receiver, administrator or manager of its business or undertaking appointed,
- vii) goes into liquidation, or
- viii) has an execution/restraining order levied on his goods.

#### 48.4.2 Completion of the T&I WORK by the COMPANY

In the event of termination under the provisions of sub-article 48.4 the T&I CONTRACTOR shall not be entitled to compensation or indemnity, and furthermore, the COMPANY shall have the right, at its sole option, to complete (or to have completed) any and all outstanding T&I WORK at T&I CONTRACTOR's cost and risk by whatever method it deems expedient, including the hiring of third party and take-over of T&I CONTRACTOR's property in accordance with the provisions of sub-article 48.6.

Upon receipt of notice of termination of this CONTRACT, the T&I CONTRACTOR shall immediately deliver to the COMPANY the RESULT OF THE WORK and shall immediately assign to the COMPANY any and all SUBCONTRACTS, Purchase Orders for CONTRACTOR ITEMS, as well as T&I CONSTRUCTION EQUIPMENT that the COMPANY shall elect to take-over, notifying the respective parties accordingly.

#### 48.4.3 Compensation for Termination for Default

The following shall apply:

- a) The COMPANY shall be entitled to immediately suspend all payments to the T&I CONTRACTOR from the date of notification of termination until the T&I WORK has been fully completed.
- b) After completion of the T&I WORK, the COMPANY shall pay the T&I CONTRACTOR as full and final settlement of all payments due under this CONTRACT, the amount resulting from the unpaid balance of the CONTRACT PRICE for the T&I WORK properly and correctly completed by the T&I CONTRACTOR in accordance with the requirements of this CONTRACT upon the date of termination, after deduction of;
  - i) any and all advance payments for the T&I WORK not completed by the T&I CONTRACTOR,
  - ii) the COMPANY's documented additional costs and expenses (including the expenses for completing the T&I WORK, the additional managerial expenses and administrative services and the costs resulting from hiring any third party) due to such termination.
- c) If the result of the foregoing calculation shows a credit due to the COMPANY, the T&I CONTRACTOR shall be liable for and shall promptly pay such amount to the COMPANY.

#### 48.4.4 Partial Termination

All foregoing provisions shall apply mutatis mutandis when the COMPANY withdraws any parts of the scope of the T&I WORK from T&I CONTRACTOR's performance due to T&I CONTRACTOR's default or deficiency under sub-article 48.4.1.

#### 48.5 Take-over of Uncompleted Parts of the PLANT or the RESULT OF THE WORK

If the T&I CONTRACTOR is late in the performance of the T&I WORK and cannot demonstrate, with documented support, that he can satisfactorily complete all the outstanding T&I WORK in accordance with the WORK TIME SCHEDULE, the COMPANY shall have the right to take-over any uncompleted parts of the PLANT or the RESULT OF THE WORK.

Should the COMPANY exercise such a right and require the T&I CONTRACTOR to complete other parts of the outstanding T&I WORK, he will not be entitled to any Extension of Time and/or additional compensation whatsoever resulting from such use.

In such a case, the relevant provisions of this CONTRACT shall remain applicable provided that the COMPANY gives the T&I CONTRACTOR access to the extent feasible to the area where the remaining T&I WORK has to be performed, subject always to compliance with the COMPANY's regulations in force at that time.

#### 48.6 Take-over of T&I CONTRACTOR's Property for Default

##### 48.6.1 Take-over Rights and Compensation

In the event of termination of this CONTRACT under the provisions of sub-article 48.4.1, the COMPANY, for the purpose of completing the T&I WORK, shall have the right to take-over direction of and to use all or any part of the T&I CONSTRUCTION EQUIPMENT, if required, will continue to be operated by T&I CONTRACTOR's PERSONNEL it being understood that the MARINE SPREAD, if required, and such other T&I CONSTRUCTION EQUIPMENT as the COMPANY shall request will continue to be operated by CONTRACTOR's PERSONNEL under COMPANY's direction under COMPANY's direction, and properties of any kind whether tangible or intangible (including INTELLECTUAL PROPERTY RIGHTS and premises belonging to the T&I CONTRACTOR) delivered to, provided or utilized by the T&I CONTRACTOR for the performance of the T&I WORK.

The T&I CONTRACTOR shall forthwith create all conditions necessary for the lawful use by the COMPANY of the T&I CONSTRUCTION EQUIPMENT and properties.

Without any duplication with compensation provided for under sub-article 48.4.3, the COMPANY shall compensate such take-over only if the balance of the CONTRACT PRICE upon the date of termination against the amount of the payments already made to the T&I CONTRACTOR under this CONTRACT, increased by all the additional costs and expenses borne by the COMPANY for completing the T&I WORK, as mentioned in sub-article 48.4.3, shows a credit in favor of the T&I CONTRACTOR.

48.6.2 Partial Take-over

All foregoing provisions shall apply mutatis mutandis when the COMPANY takes over any parts of the scope of the T&I WORK from T&I CONTRACTOR's performance due to T&I CONTRACTOR's default.

48.7 Other Rights or Remedies

Suspension, exercising rights under Performance Bank Guarantee, termination of this CONTRACT or take over by the COMPANY in accordance with the provisions of article 48 shall be without prejudice to any rights or remedies that the COMPANY may have under this CONTRACT and/or at law, and without relieving the T&I CONTRACTOR of his obligations whatsoever under this CONTRACT and/or at law.

48.8 Termination of Subsequent PLATFORMS and/or PHASES

Notwithstanding and without limitation and/or restriction to the other provisions, terms and requirements of this CONTRACT, including sub-articles 48.1, 48.2, 48.3, 48.4, 48.5, 48.6, 48.7, by a written notice to the T&I CONTRACTOR, the COMPANY shall have the right to withdraw, from this T&I CONTRACT, any PHASES and/or PLATFORMS for which a NOTICE TO PROCEED has not been issued. Such right shall not apply to PLATFORMS to be installed in Installation Years 2022, 2023 and/or 2024.

Any such notice shall be effective immediately upon receipt by the T&I CONTRACTOR.

The T&I CONTRACTOR shall complete any uncompleted T&I WORK for PLATFORMS and PHASES for which NOTICES TO PROCEED have been issued; however the employment of the T&I CONTRACTOR for any and all subsequent PLATFORMS and PHASES for which NOTICES TO PROCEED for the PROJECT have not been issued shall be considered terminated. The COMPANY shall not be bound to give explanation or reasons for such termination.

Subject to the requirements of sub-article 14.4.1, the T&I CONTRACTOR shall be paid in accordance with the terms and requirements of this CONTRACT for all T&I WORK properly and satisfactorily performed in respect of PHASES for which NOTICES TO PROCEED have been issued; however the T&I CONTRACTOR shall not be entitled to any payment whatsoever with regard to PLATFORMS and/or PHASES for which a NOTICE TO PROCEED has not been issued.

For clarity, and in such event the T&I CONTRACTOR shall not CLAIM for the impact of such termination pursuant to this sub-article 48.8 on the sums, rates and prices and the CONTRACT PRICES for PHASES for which NOTICES TO PROCEED have been issued.

**Article 49 COMPANY's Convenience: Suspension - Take-over - CONTRACT Termination**

49.1 Suspension of the T&I WORK for Convenience

49.1.1 Notice of Suspension

Without prejudice to COMPANY's right to suspend the T&I WORK pursuant to sub-article 48.3, the COMPANY shall have the right at any time during the performance of the T&I WORK for which a NOTICE TO PROCEED has been issued and at its own convenience, to suspend, from time to time, the performance of all or any parts of the T&I WORK by issuing to the T&I CONTRACTOR a suspension order or notification designating the parts of the T&I WORK affected,

the means to be used for storing, preserving and safeguarding the RESULT OF THE WORK, and the PERSONNEL and the T&I CONSTRUCTION EQUIPMENT which shall remain committed to any WORKSITE and other T&I WORK Locations.

#### 49.1.2 General Provisions concerning Suspension

Unless instructed otherwise by the COMPANY, upon receipt of any such suspension order or notification, the T&I CONTRACTOR shall automatically:

- a) immediately discontinue the performance of the part of the T&I WORK affected by the suspension on the date and to the extent specified in said suspension order or notification, and
- b) place no further Purchase Orders or subcontracts with respect to the suspended T&I WORK, unless specified in said suspension order or notification, and
- c) promptly and upon terms acceptable to the COMPANY, obtain suspension of all Purchase Orders, subcontracts and rental agreements to the extent that they relate to performance of suspended T&I WORK, and
- d) continue to perform non-suspended obligations (including safety requirements and protection of stored parts of the RESULT OF THE WORK and the T&I CONSTRUCTION EQUIPMENT), and
- e) generally act in such a manner as to minimize costs associated with such suspension.

#### 49.1.3 Resuming Suspended T&I WORK

The T&I CONTRACTOR shall promptly resume performance of suspended WORK upon receipt of notice to continue from the COMPANY and to the extent required therein.

#### 49.1.4 Time Extensions for Suspension

Subject to the provisions of article 15, and provided that the T&I CONTRACTOR has contributed in no way to COMPANY's reasons for suspension of the T&I WORK, the T&I CONTRACTOR shall be entitled to request for such suspension periods requested or caused by the COMPANY, time extensions to the WORK TIME SCHEDULE and/or applicable COMPLETION DATE(S).

#### 49.1.5 Compensation for Suspension

Provided that the T&I CONTRACTOR has contributed in no way to COMPANY's reasons for the suspension of the T&I WORK, the T&I CONTRACTOR, as full and final compensation for each suspension pursuant to sub-article 49.1.1, shall be reimbursed for any justified and satisfactorily documented unavoidable expenses directly and reasonably incurred and resulting from such suspension, and actually paid, within the limits of applicable rates set out in Exhibit B.

#### 49.1.6 Storage of the RESULT OF THE WORK

If further to suspension as provided herein, the COMPANY requires storage of all or part of the RESULT OF THE WORK upon any WORKSITE, excluding the

SITE, or any WORKSHOP, for a period exceeding one hundred and twenty (120) days, the COMPANY shall pay the T&I CONTRACTOR as full compensation for such storage at the relevant storage rates, or pro rata thereof, as set out in Exhibit B, entitlement to payment for storage shall commence after the expiry of the grace period of one hundred and twenty (120) days free storage.

49.2 Take-over of Parts of the PLANT or RESULT OF THE WORK

At its sole discretion, upon notice to the T&I CONTRACTOR, the COMPANY, shall have the right, at any time, to take-over parts of the PLANT or RESULT OF THE WORK. The COMPANY shall exercise all reasonable efforts to minimize any inconvenience to the T&I CONTRACTOR during any such take-over.

49.2.1 Take-over of Completed Discrete Parts of the PLANT/Partial Acceptance

In the event of COMPANY take-over of discrete parts (as identified by COMPANY) of the PLANT or the RESULT OF THE WORK, provided the T&I CONTRACTOR has satisfactorily performed all testing activities required by the COMPANY, and has provided the COMPANY with all FINAL DOCUMENTATION, related thereto, such that no work remains outstanding in respect of such parts taken over, such take-over shall constitute provisional acceptance of such parts of the PLANT or T&I WORK as provided for in sub-article 19.2 and start the corresponding WARRANTY PERIOD.

49.2.2 Take-over of Uncompleted Parts of the PLANT

Should the COMPANY take over parts of the RESULT OF THE WORK as contemplated in sub-article 49.2.1, and require T&I CONTRACTOR to complete the other parts of outstanding T&I WORK, and providing that T&I CONTRACTOR can demonstrate, with documented support, that at the time of such take-over, T&I CONTRACTOR's progress in the performance of the T&I WORK was such that, should such take-over not have occurred, he could have satisfactorily completed all the outstanding T&I WORK by the COMPLETION DATE, the T&I CONTRACTOR shall be entitled to an Extension of Time in accordance with sub-article 15 and a CHANGE ORDER in accordance with article 22 in respect of any additional costs incurred by the T&I CONTRACTOR in completing such outstanding T&I WORK.

49.3 Termination of the CONTRACT for Convenience

49.3.1 Notice and Requirements

Without prejudice to COMPANY's rights to terminate this CONTRACT for FORCE MAJEURE or due to T&I CONTRACTOR's default or under sub-article 48.8, the COMPANY reserves its right to terminate this CONTRACT in whole or in part, in respect of such whole or in parts for which a NOTICE TO PROCEED has been issued without cause at any time at its own convenience by serving prior written notice to the T&I CONTRACTOR.

Upon receipt of such a written notice of termination the T&I CONTRACTOR shall immediately comply with the COMPANY requirements with regard to:

- a) termination of SUBCONTRACTS and/or Purchase Orders
- b) assignment of SUBCONTRACTS and/or Purchase Orders and
- c) delivery of RESULT OF THE WORK and any properties and

- d) all other matters pertaining to the T&I WORK and the performance thereof and as may be required or necessary.

#### 49.3.2 Compensation for Termination for Convenience

If this CONTRACT is terminated by the COMPANY in whole or in part under this article 49.3, the compensation due to the T&I CONTRACTOR shall be calculated subject to the limitations in sub-articles 14.1.1 and 49.3.4 as follows:

- a) the COMPANY shall pay the T&I CONTRACTOR the unpaid balance for T&I WORK properly and correctly performed for applicable PHASE(s) before and/ or on the date of termination, such balance shall be determined in good faith by the COMPANY based on approved Progress Reports and other means of evaluating the T&I WORK under this CONTRACT including sub-article 22.3 and Exhibit B, and
- b) the COMPANY shall pay the T&I CONTRACTOR:
  - i) the net substantiated cost of termination (if any) in whole or in part as applicable affected SUBCONTRACTS and affected Purchase Orders, calculated in accordance with the terms and requirements of the approved SUBCONTRACTS and approved Purchase Orders, or
  - ii) the net substantiated cost (if any) of assignment of the applicable SUBCONTRACTS or Purchase Order to the COMPANY, calculated in accordance with the terms and requirements of the approved SUBCONTRACTS and approved Purchase Orders, and
- c) demobilisation of MARINE SPREAD priced in accordance with the applicable rates and/or prices in Annex-4 of Exhibit B, and
- d) the COMPANY shall pay the T&I CONTRACTOR zero point five percent (0.5%) of the difference between the CONTRACT PRICE for each applicable PHASE (including all CHANGE ORDER APPROVED prior to the date of termination but exclusion any OPTIONS not exercised) and the aggregate of the amounts already paid to the T&I CONTRACTOR for such PHASE prior to the date of termination in addition to amounts payable as per sub-articles 49.3.2 a), b) and 49.3.2 c) hereof.

In any event, the amount to be paid for completed T&I WORK including compensation as per the above sub-article 49.3.2 a) to d) for a PHASE shall not exceed the CONTRACT PRICE for such PHASE at the date of termination as aforesaid. The foregoing amount shall be sole remedy of the T&I CONTRACTOR for the termination for COMPANY's convenience.

The T&I CONTRACTOR shall not be entitled to any other compensation except as aforesaid for the deletion of any PLATFORM and/or PHASE from the T&I scope of WORK subject to the provisions of sub-articles 14.1.1, 48.8 and 49.3.4 before the issue of an applicable NOTICE TO PROCEED and/or for termination by the COMPANY for convenience pursuant to sub-article 49.3.1, nor for delays, stand-by, nor for any and all direct, indirect, and/or consequential costs and expenses, nor for CONSEQUENTIAL LOSS, demobilisation of WORKSITES, WORK Locations, CONSTRUCTION EQUIPMENT and PERSONNEL



including termination of employment, nor for loss of profits, loss of overheads and loss of opportunity, howsoever arising.

#### 49.3.3 Substantiation

The T&I CONTRACTOR shall submit all required and/or necessary substantiation for reasonable monetary amounts, other matters and CLAIMS to the COMPANY for review and approval. Such substantiation shall include all documents, information and other things required and/or necessary. The T&I CONTRACTOR shall also provide further clarification, documents and/or information the COMPANY may require.

#### 49.3.4 Limitation of Compensation for Termination for Convenience

The T&I CONTRACTOR shall not be entitled to compensation under this article 49, the other provisions of this CONTRACT and otherwise for PLATFORMS and/or PHASES in respect of which the COMPANY does not issue a NOTICE TO PROCEED or informs the T&I CONTRACTOR such a NOTICE TO PROCEED will not be issued.

#### 49.4 Termination on Account of Long Suspension Attributable to the COMPANY

If a suspension ordered by the COMPANY pursuant to sub-article 49.1, will affect a major part of the T&I WORK for a PHASE and provided such suspension is not attributable to any of the CONTRACTOR INDEMNIFIED PARTIES and is not attributable to loss and/or damage pursuant to sub-article 37, and/or FORCE MAJEURE, and

- a) if the suspension ordered by the COMPANY is for ninety (90) consecutive days or more the T&I CONTRACTOR shall, at the latest seven (7) days after the receipt of the COMPANY's order to suspend, inform the COMPANY of the T&I CONTRACTOR's decision to accept such suspension or shall request that the affected portion of the T&I WORK subject to the suspension order shall be terminated, in full or in part, or
- b) if the suspension ordered by the COMPANY is for less than ninety (90) consecutive days the T&I CONTRACTOR shall comply with the COMPANY's order and subsequent instructions with regard thereto. However, if a suspension ordered under this sub-article 49.4 b) will or is likely to last for ninety (90) consecutive days or more the T&I CONTRACTOR may either accept such longer suspension or shall request that the affected portion of the T&I WORK subject to the suspension order shall be terminated, in full or in part.

The COMPANY shall consider requests from the T&I CONTRACTOR to terminate affected portions of the T&I WORK as aforesaid and shall issue its decisions accordingly. The T&I CONTRACTOR shall comply with any and all such decisions issued by the COMPANY.

If the COMPANY agrees that the portion of the T&I WORK that is subject to the suspension order shall be terminated, in full or in part, the T&I CONTRACTOR shall cease the affected T&I WORK or such portions thereof and shall comply with COMPANY instructions with regard thereto. The T&I CONTRACTOR shall be compensated for such termination in accordance with the provisions of sub-article 49.3.2 a), b), c) and/or d) subject to the limitations stated in sub-articles 14.1.1, 49.3.2 49.3.3 and 49.3.4.

For clarity, any and all instructions issued by the COMPANY with regard to the timing and sequence of T&I WORK for which a NOTICE TO PROCEED has been issued shall not be considered as suspension of the T&I WORK for a PHASE or any part thereof.

The postponement and/or cancellation of PLATFORMS and/or PHASES for which a NOTICE TO PROCEED has not been issued shall not be considered as a suspension, whether ordered by the COMPANY or not.

**Article 50** **FORCE MAJEURE**

50.1 **Suspension of the T&I WORK for FORCE MAJEURE**

If any PARTY hereto is prevented, hindered or delayed from performing all or any of its/his obligations hereunder as a result of FORCE MAJEURE, the PARTY so affected shall promptly notify the other PARTY providing evidence of the occurrence of the said event, particulars of the event (in as much detail as is reasonably available from time to time including any internal or external report on the FORCE MAJEURE event) and shall give prompt notice once the end of the FORCE MAJEURE situation is foreseeable.

Each PARTY shall do everything reasonably possible to minimize the effects of such FORCE MAJEURE and shall maintain all safety, security and protective measures insofar as possible.

The PARTY affected by FORCE MAJEURE and who has given such notice shall be relieved from the performance or punctual performance of its obligations under this CONTRACT for so long as the consequences of the relevant event of FORCE MAJEURE calculated upon the critical path of the WORK TIME SCHEDULE, as set out in the Detailed approved Work Time Schedule, continues and to the extent that such PARTY's performance is actually prevented, hindered or delayed.

Each PARTY shall bear separately all its costs and expenses howsoever arising and direct and indirect financial consequences of such FORCE MAJEURE situation and no extra payment or compensation shall be due to the T&I CONTRACTOR by the COMPANY for the consequences of FORCE MAJEURE and/or due to suspension and/or termination of this CONTRACT in full or in part, nor for the T&I WORK , in full or in part, because of FORCE MAJEURE.

Time extensions for delays on the critical path of the WORK TIME SCHEDULE, as set out in the Detailed Work Time Schedule, due to FORCE MAJEURE shall be determined in accordance with the applicable provisions of article 15.

50.2 **Standby of the MARINE SPREAD for FORCE MAJEURE**

50.2.1 Following notification of a FORCE MAJEURE occurrence in accordance with sub-article 50.1, causing the MARINE SPREAD to stand-by at the SITE, the COMPANY and the T&I CONTRACTOR shall meet without delay to attempt to agree a mutually acceptable course of action to minimize any effects of such occurrence on each PARTY.

The T&I CONTRACTOR shall be compensated for standby of MARINE SPREAD when operating at the SITE if caused by FORCE MAJEURE in accordance with the MARINE SPREAD standby rates in Exhibit B.

50.2.2 Within the first ten (10) days of MARINE SPREAD standby, the COMPANY may instruct the T&I CONTRACTOR to remain further on standby at the

WORKSITE in which event the COMPANY shall compensate the T&I CONTRACTOR for such further standby at the relevant standby rates set out in Exhibit B. Nevertheless, if the stand by period due to a FORCE MAJEURE occurrence exceeds twenty eight (28) consecutive days, the T&I CONTRACTOR may demobilize and leave the WORKSITE.

- 50.2.3 Upon cessation of any FORCE MAJEURE occurrence the T&I CONTRACTOR shall, subject to sub-article 15.8, prepare for APPROVAL a revised T&I Detailed Work Time Schedule to include for rescheduling of the WORK without undue delay, taking into account any demobilization of the MARINE SPREAD and the time for its remobilization. Subject to sub-article 15.8, the COMPANY shall authorize a CHANGE ORDER solely to adjust the WORK TIME SCHEDULE and/or COMPLETION DATE(S), unless due allowance has been made in such CHANGE ORDER for any COMPANY instruction to accelerate the WORK.
- 50.2.4 However, should the T&I CONTRACTOR fail to resume the suspended WORK in accordance with the revised T&I Detailed Work Time Schedule using the same MARINE SPREAD or any other approved MARINE SPREAD, then the COMPANY shall have the right to withdraw the affected part of the WORK from T&I CONTRACTOR's scope. In such case, such withdrawal shall be considered as termination deemed to be at CONTRACTOR's default.

50.3 Termination of the CONTRACT for FORCE MAJEURE

50.3.1 Notice and Requirements

Except for MARINE SPREAD as provided for in sub-article 50.2, if completion of the T&I WORK for a PHASE in whole or in part is in the opinion of the COMPANY made impossible due to FORCE MAJEURE, or if the T&I WORK in full or in part has been suspended and such suspension has lasted (or in the joint opinion of the PARTIES is anticipated to last) more than one hundred and eighty (180) consecutive days as evidenced by the PARTY invoking such FORCE MAJEURE event and is solely caused by FORCE MAJEURE and there are no other concurrent delays during any such period of suspension attributable to and/or caused by any of the CONTRACTOR INDEMNIFIED PARTIES then either PARTY shall have the right to terminate the performance of the affected T&I WORK for such PHASE(S) by notice to the other PARTY.

In the event of any such termination the T&I CONTRACTOR shall comply with the COMPANY's requirements as per sub-article 49.3.1 a), b) c) and d) for affected T&I WORK for such PHASE(S).

50.3.2 Compensation in the Event of Termination Due to FORCE MAJEURE

Except for MARINE SPREAD as provided for in sub-article 50.2, if the performance of T&I WORK for a PHASE is terminated in full or in part pursuant to sub-article 50.3.1, the T&I CONTRACTOR shall be paid, as full and final remuneration and compensation for such terminated T&I WORK properly and correctly performed for such applicable PHASE and for complying with the COMPANY's requirements as per the last paragraph of sub-article 50.3.1, calculated as follows:

- a) For T&I WORK not terminated pursuant to sub-article 50.3.1 in accordance with the terms and requirements of this CONTRACT.
- b) For T&I WORK terminated pursuant to sub-article 50.3.1, the unpaid balance for T&I WORK properly and correctly performed before and/ or on the date of termination, such balance shall be determined in good faith by the COMPANY based on approved Progress Reports and other means of evaluating the T&I WORK under this CONTRACT including sub-article 22.3, Exhibit G Annex-5 and Exhibit B.

Notwithstanding the foregoing, compensation under sub-article 50.3.2 a) and b) shall be sole remedy of the T&I CONTRACTOR for the termination in full or in part due to FORCE MAJEURE, no other compensation whatsoever shall be due from the COMPANY to the T&I CONTRACTOR moreover the COMPANY does not indemnify nor shall the COMPANY reimburse the T&I CONTRACTOR for delays, stand-by, nor for any and all direct, indirect, and/or consequential costs and expenses, nor for CONSEQUENTIAL LOSS, demobilisation of WORKSITES, WORK Locations, CONSTRUCTION EQUIPMENT and PERSONNEL including termination nor for loss of profits, loss of overheads and loss of opportunity howsoever arising.

The COMPANY shall determine in good faith the proportion of the T&I WORK completed at the time of termination based on approved Progress Reports and other means of evaluating the T&I WORK under the CONTRACT.

#### **Article 51 Law Governing CONTRACT**

This CONTRACT shall be governed by and construed in accordance with the laws of Thailand.

#### **Article 52 Conflict of Interest**

##### **52.1 Business Ethics**

52.1.1 The PARTIES shall uphold the highest standards of business ethics in the performance of this CONTRACT. Honestly, fairness and integrity shall be paramount principles in the dealings between the PARTIES.

52.1.2 Neither PARTY shall knowingly involve itself/himself in any business in connection with, or use information arising from, this CONTRACT, in any manner which conflicts with the interests of the other PARTY.

52.1.3 Each PARTY, with regard to the T&I WORK or other matters which are the subject of this CONTRACT:

- a) warrants that he and the member of the COMPANY INDEMNIFIED PARTIES or the CONTRACTOR INDEMNIFIED PARTIES (as applicable), has not made, offered or authorized; and
- b) agrees that he and the member of the COMPANY INDEMNIFIED PARTIES or the CONTRACTOR INDEMNIFIED PARTIES (as applicable), shall not make, offer or authorize,

any payment, gift, promise or other advantage, whether directly or through any other person or entity, to, or for the use or benefit of, any person holding a

legislative, administrative or judicial office, or any person employed by or acting on behalf of a public agency, public enterprise, public international organization or political party, or any political party official or candidate for office, or any other individual or entity, where such payment, gift, promise or advantage would violate the above warranty or agreement or APPLICABLE LAWS.

## 52.2 Human Rights

In the performance of the CONTRACT, the PARTIES shall comply with:

- a) United Nations Global Compact's ten principles in the areas of human rights, labor, environment and anti-corruption;
- b) Universal Declaration of Human Rights; and
- c) International Labor Organization's Declaration on Fundamental Principles and Rights at Work which covers four fundamental principles and rights at work.

## 52.3 Audit and Investigation

52.3.1 The T&I CONTRACTOR shall ensure that his PERSONNEL and SUBCONTRACTOR shall fully comply with the obligations set forth in article 52. The T&I CONTRACTOR shall allow the COMPANY to audit or investigate any related information or documentation to ensure the compliance of article 52 by the T&I CONTRACTOR, SUBCONTRACTOR and VENDOR.

52.3.2 The T&I CONTRACTOR shall promptly notify the COMPANY upon learning of any investigation or any legal proceeding initiated against any member of the CONTRACTOR INDEMNIFIED PARTIES by any authorities resulting from the breach of this article 52.

## 52.4 Conflict of Interest

Without prejudice to the provisions of article 52, the CONTRACTOR shall ensure that any member of CONTRACTOR INDEMNIFIED PARTIES shall not enter into any business arrangement with any director, employee, or agent of the EXISTING G1/61 OPERATOR or its AFFILIATES (other than as a representative of EXISTING G1/61 OPERATOR or its AFFILIATE) without the EXISTING G1/61 OPERATOR's prior written consent.

## **Article 53 Liens**

### 53.1 Liens on COMPANY's Property

The T&I CONTRACTOR undertakes not to create or do anything (including by act or omission) which could result in the creation of any lien on COMPANY's property, and the T&I CONTRACTOR hereby declares that he has not created any such lien or done anything as hereinabove before entering this CONTRACT.

The T&I CONTRACTOR expressly and unconditionally waives any right to retain or withhold delivery of the RESULT OF THE WORK and the PLANT in the event of any dispute between the PARTIES, including any right of retention, mechanic's lien, plea of simultaneous performance, or any other similar right arising under APPLICABLE LAWS.

### 53.2 Waiver and Hold Harmless

The T&I CONTRACTOR shall save, defend, indemnify and hold harmless the COMPANY from and against any and all CLAIMS arising out of, related to or in connection with the discharge of any lien claimed against the COMPANY's property under article 46 if created

or caused (by any act, omission or negligence) by the T&I CONTRACTOR or by any SUBCONTRACTOR or their respective PERSONNEL.

If at any time the COMPANY receives notice or information of the recording of any such lien, or any evidence of any such lien or claim, which, if valid, could constitute a legal charge upon the COMPANY's property, it shall forthwith notify the CONTRACTOR who shall promptly refund the COMPANY for all costs incurred, and in the event of the T&I CONTRACTOR not so refunding, the COMPANY shall have the right to call the Performance Bank Guarantee, Parent Company Guarantee and/or deduct from any sums due or becoming due to the T&I CONTRACTOR, such amounts necessary to discharge such lien or CLAIM and connected expenses, unless the T&I CONTRACTOR satisfactorily evidences forthwith that such lien is not valid.

53.3 Liens on the T&I CONSTRUCTION EQUIPMENT

The T&I CONTRACTOR undertakes not to create or do any act, deed or thing which would result in the creation of any lien on the T&I CONSTRUCTION EQUIPMENT preventing (or that could in any way prevent) the T&I CONTRACTOR from performing the T&I WORK diligently and in accordance with this CONTRACT and/or which could hamper the proper exercise by the COMPANY of its rights under take-over provisions for T&I CONTRACTOR's default or pursuant to the HANDOVER provisions of sub-article 19.1.

**Article 54 Settlement of Disputes**

54.1 General

The PARTIES shall exclusively and finally resolve any dispute (including any controversy, CLAIM or difference) between them using direct negotiations, mediation and arbitration as set out in this article.

54.2 Direct Negotiations

If a dispute arises, a PARTY shall initiate the resolution process by giving notice setting out in writing and in detail the issues in dispute and the value of the CLAIMS to the other PARTY. A meeting between the PARTIES, attended by individuals with decision-making authority, must take place within sixty (60) days from the date the notice was sent in an attempt to resolve the dispute through direct negotiations.

54.3 Mediation

If the dispute cannot be settled by direct negotiations, within thirty (30) days of the final direct negotiation meeting, either PARTY may initiate mediation by giving notice to the other PARTY. The place of mediation shall be Thailand. The Mediator shall be appointed through mutual agreement of both PARTIES.

54.4 Arbitration

If not resolved by direct negotiation or mediation, all disputes arising out of or in connection with the CONTRACT shall be finally settled under the latest version of the Rules of Arbitration of the International Chamber of Commerce applicable at the time of submission of the dispute to arbitration. There shall be three arbitrators appointed in accordance with the said Rules. The Emergency Arbitrator Provisions shall not apply. The place of Arbitration shall be Bangkok, Thailand and the arbitration proceedings shall be conducted in the English Language. The award of the arbitral tribunal shall be final and binding.

Judgement on the award of the tribunal may be entered and enforced by any court of competent jurisdiction.

54.5 Enforcement

The PARTIES waive irrevocably their right to any form of appeal, review or recourse to any court or other judicial authority, to the extent that such waiver may be validly made.

The fact that the dispute resolution proceedings have been initiated shall not modify or suspend in any way the obligations of the PARTIES.

**Article 55 Formal Notices and Other Communications**

55.1 Form of Notice

All notices or communications of any kind to be given under this CONTRACT shall be:

- a) made in writing in the English language; and
- b) sent to the other PARTY by submission via the PROJECT Electronic Data Management System (EDMS).

If a notice or written communication is received after 16:30 pm in the place of receipt on a day that is a Saturday, Sunday or public holiday in the place of receipt, then the date and time of receipt shall be deemed to be 09:00 am on the next working day in the place of receipt.

55.2 Addresses for Delivery of Notices

- a) The COMPANY:  
PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED  
Energy Complex Building A, Floors 6th, 19th-36th  
555/1 Vibhavadi Rangsit Road  
Chatuchak, Bangkok 10900

For the attention of COMPANY REPRESENTATIVE  
Mr. Napa Medheethunyapong  
Email: napam@pttep.com  
Telephone: (662) 537 4000

- b) The T&I CONTRACTOR

.....  
.....  
.....  
.....

For the attention of T&I CONTRACTOR REPRESENTATIVE

.....  
Email: .....  
Telephone: .....

**Article 56 EFFECTIVE DATE**

Notwithstanding the date of signature of this CONTRACT, this CONTRACT shall come into force on ....., (hereinafter referred to as “EFFECTIVE DATE”). The CONTRACT shall continue in full force and effect until all the obligations hereunder of both PARTIES have been completed in accordance with the terms and requirements of this

CONTRACT, including the expiry of the WARRANTY PERIOD, unless this CONTRACT is earlier terminated pursuant to articles 48, 49 or 50.

**Article 57 Provisions Surviving CONTRACT**

Termination of this CONTRACT and/or COMPANY's provisional and/or final acceptance of the T&I WORK or any parts thereof shall not release the PARTIES from obligations which expressly or by their nature survive this CONTRACT or extend beyond CONTRACT termination and any acceptance of the T&I WORK.

**Article 58 Limitation of Liability**

58.1 General Liability for the T&I WORK

Save except as provided for in sub-article 58.2 here below, the T&I CONTRACTOR's liability with respect to his performance, mis-performance and otherwise default of his obligations under this CONTRACT shall be in accordance with the provisions of this CONTRACT.

58.2 Limitation of Liability in respect of Liquidated and other Specified Damages

The T&I CONTRACTOR's total aggregate liability for the items described in sub-article 58.2 (a), (b), and (c) for a PHASE shall not exceed forty percent (40%) of the Initial CONTRACT PRICE for such PHASE.

- a) The T&I CONTRACTOR's obligations in respect of liquidated damages for:
  - i) Late Completion of the T&I WORK, pursuant to and in accordance with sub-article 34.1 and Exhibit B.
  - ii) Standby of a Drilling Rig at the SITE pursuant to and in accordance with sub-article 34.2 and Exhibit B.
  - iii) Unauthorized removal and/or substitution of KEY PERSONNEL pursuant to and in accordance with sub-articles 25.2, 34.3, Exhibit B and Exhibit K.
  - iv) Unauthorised change, removal and/or substitution of a KEY VESSEL forming part of the MARINE SPREAD pursuant to and in accordance with sub-Articles 26.4, 34.4 Exhibit K and Section 8.4 of Exhibit B.
  - v) unauthorized change of a T&I Engineering WORK Location and/or additional T&I Engineering WORK Location pursuant to and accordance with sub-article 34.6 and Exhibit B.
- b) Termination for reasons of the T&I CONTRACTOR's default.
- c) Guarantees and warranties in accordance with sub-articles 20.3 and 20.4.

For the period between the EFFECTIVE DATE and the date of issue of the NOTICE TO PROCEED for the first PHASE the T&I CONTRACTOR's total aggregate liability toward the COMPANY under this CONTRACT including negligence (but excluding GROSS NEGLIGENCE) shall not exceed USD 20 million (Twenty million United Sates Dollars) for the T&I CONTRACTOR's obligations as per sub-articles 50.1 and 58.2.

58.3 Insurance Proceeds

The limitation of the T&I CONTRACTOR's liability in sub-article 58.2 above shall not include, and shall therefore be in excess of, any and all proceeds recoverable by the T&I CONTRACTOR and/or by the COMPANY for and on behalf of the T&I CONTRACTOR from the insurances pursuant to articles 41 and 43 herein.



IN WITNESS WHEREOF, the PARTIES have caused their duly authorized representatives to sign these presents, in two (2) originals, the day and year first above written.

**For and on behalf of the T&I CONTRACTOR**

**For and on behalf of the COMPANY**

Signature: .....

Name: .....

Title: .....

**Witnessed By:**

Signature:

Name: .....

Title: .....

Signature:

Name: Mr. Napa Medheethunyapong

Title: Vice President, Wellhead Platform  
Construction Department.

**Witnessed By:**

Signature:

Name: Mr. Roongroj Khaosut

Title: Manager, Construction Section,  
Wellhead Platform Construction  
Department.

Signature:

Name: Mr.Chindanai Preuksapanich

Title: Officer, Procurement and Contracts  
Global Supply Chain, Procurement and  
Contracts Department

**ANNEXES 1 to 10**

**ANNEX 1**

**FORM OF GUARANTEES**

**ANNEX 1/A**

**Performance Bank Guarantee**

*[To Be On Guarantor's Headed Paper]*

Guarantee Reference No: .....

Contract No: THC19-5246

PHASE: .....

Contract Title: Bundled Phases 3 Project (T&I Part)

I. We the Undersigned (1) ..... (hereinafter referred to as "GUARANTOR"), established at (2) ..... represented by (3) ....., having taken notice of the CONTRACT No. THC19-5246 (such CONTRACT being composed of an Agreement, Exhibits and related Annexes and Attachments), having an EFFECTIVE DATE of the (4) ..... (hereinafter referred to as "CONTRACT").

Such CONTRACT is made by and between PTT EXPLORATION AND PRODUCTION COMPANY LIMITED, PTTEP ENERGY DEVELOPMENT COMPANY LIMITED and PTTEP INTERNATIONAL LIMITED registered under the laws of Thailand, with registered offices at 555/1 Energy Complex Building A, Floors 6th, 19th-36th, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand (herein also referred to as PTTEP, PTTEP ED and PTTEPI respectively) (PTTEP, PTTEP ED and PTTEPI are collectively referred to as "COMPANY") and (5) ..... (hereinafter referred to as "T&I CONTRACTOR"), a company registered under the laws of (6) ..... with its registered office at (7) ..... for (8) ..... or if such CONTRACT has not yet been signed, of the respective undertakings of the T&I CONTRACTOR and the COMPANY under the terms of the Letter of Intent to Award (9) ..... dated (10) .....

II. The GUARANTOR hereby irrevocably guarantees in the event of any default or failure on the part of the T&I CONTRACTOR to abide by its obligations, indemnities and liabilities under the CONTRACT.

III. The GUARANTOR undertakes on behalf of T&I CONTRACTOR to pay the COMPANY any sum or sums not exceeding (11) USD ..... (12) ..... which is equal to ten percent (10%) of the Initial CONTRACT PRICE for the above mentioned PHASE. This guarantee is given at the request of T&I CONTRACTOR to the GUARANTOR in accordance with the CONTRACT.

The amount of this guarantee may be reduced after the issue of the last PROVISIONAL ACCEPTANCE CERTIFICATE for the above mentioned PHASE to five percent (5%) of the CONTRACT PRICE. Such reduction to the Performance Bank Guarantee amounts shall be made either by means of a formal written amendment to the Performance Bank Guarantee which shall be prepared and issued by the GUARANTOR or by a replacement Performance Bank Guarantee.

All such written amendments and replacement Performance Bank Guarantees shall be subject to prior written approval by the COMPANY.

IV. Each demand by the COMPANY for payment under this guarantee shall be made in writing (including by fax) to the following address:

(13) Bank Address for Notices:

Bank Name .....

Bank Address .....

.....

Facsimile Number .....

The GUARANTOR shall promptly notify to the COMPANY any change in the above address.

V. Each demand under paragraph III above shall indicate the breach of T&I CONTRACTOR's obligations under the CONTRACT or T&I CONTRACTOR's failure to fulfil any obligations, indemnities or liability arising out of, or in connection with, the CONTRACT.

VI. The GUARANTOR shall make payment hereunder on COMPANY's demand within fifteen (15) days after the date of receipt of the COMPANY's demand. The obligation of the GUARANTOR under this guarantee includes a guarantee of payment and not of collection.

The amount of this guarantee as established pursuant to paragraph III above shall be reduced by the amount of any payments made by GUARANTOR to PTTEP, PTTEPI and/or PTTEP ED hereunder.

VII. No alteration in the terms of the CONTRACT made by agreement between the T&I CONTRACTOR and the COMPANY nor any failure by the COMPANY to insist on proper performance of the CONTRACT or to pursue all remedies available to it against the T&I CONTRACTOR shall in any way release the GUARANTOR from all or any part of its liabilities under this guarantee.

VIII. This guarantee shall remain valid from (14) ..... until (15) ..... (hereinafter referred as "EXPIRY DATE"). All claims hereunder should be received by the GUARANTOR within one hundred and twenty (120) days after the EXPIRY DATE and unless such claims are received within one hundred and twenty (120) days after the EXPIRY DATE, all rights of COMPANY under this guarantee shall be forfeited.

IX. This guarantee shall be interpreted in accordance with the laws of the Kingdom of Thailand.

X. The GUARANTOR represents that this Bank guarantee has been established in such forms and with such content that it is fully and freely enforceable against the GUARANTOR in the manner provided in all paragraphs above.

XI. The benefit of this Guarantee may be assigned by either PTTEP or PTTEP ED or PTTEPI.

XII. If any provision (or part thereof) of, or pursuant to, this guarantee, is or become unlawful, void, or unenforceable, the legality, validity or enforceability of any other part of that provision or any other provision shall not be affected but shall continue in full force and effect.

(Date) .....

*(Common Seal and Signature of the GUARANTOR or such other formality as may be required under the law to render the unilateral promise binding on the GUARANTOR.)*

- (1) Name of the Bank proposed by T&I CONTRACTOR and approved by the COMPANY
- (2) Address of office of Bank
- (3) GUARANTOR officer's name and title
- (4) EFFECTIVE DATE of CONTRACT No THC19-5246.
- (5) Name of T&I CONTRACTOR
- (6) Country of registration of the T&I CONTRACTOR
- (7) Address of the T&I CONTRACTOR's registered office
- (8) Title or purpose of the CONTRACT
- (9) Reference number of the Letter of Intent to Award
- (10) Date of the Letter of Intent to Award
- (11) USD amount of the Performance Bank Guarantee in figures
- (12) USD amount of the Performance Bank Guarantee in words
- (13) Bank address for notices
- (14) Date the Performance Bank Guarantee is effective from
- (15) Expiry date calculated as  $A+B+C$  = expiry date, where:
  - A = required latest HANDOVER CERTIFICATE for a PHASE calculated as per Exhibit C
  - B = six (6) months, and
  - C = eighteen (18) months.

**ANNEX 1/B**  
**Performance Bank Guarantee**  
**Form of Demand**

To: .....

Guarantee Reference No: ..... dated .....

Contract No : THC19-5246

Contract Title: Bundled Phases 3 Project (T&I Part)

Dear Sirs,

We refer to the above Performance Bank Guarantee given by you to us (the “Guarantee”). This is the demand as defined in Clause IV of the above Performance Bank Guarantee.

Terms defined in the Guarantee shall have the same meaning in this Demand.

We certify that the T&I CONTRACTOR is in breach of the CONTRACT and hereby demand that you pay to us USD .....

The monies are to be paid into our Account No: ..... with .....,  
.....

Signed For and on Behalf of .....

Name .....

In the capacity of .....

**ANNEX 1/C**

**Form of Parent Company Guarantee**

PTT EXPLORATION AND PRODUCTION COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED,  
555/1, Energy Complex Building A,  
Floors 6, 19 – 36, Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900,  
Thailand.

Guarantee Ref. No: (1) .....

Dated: (2) .....

Contract No: THC19-5246

Contract Title: Bundled Phases 3 Project (T&I Part)

Dear Sirs,

1. With reference to the CONTRACT No THC19-5246 having an EFFECTIVE DATE of the (3) ..... day of ..... 2020 between:

PTT EXPLORATION AND PRODUCTION COMPANY LIMITED (PTTEP), PTTEP INTERNATIONAL LIMITED (PTTEPI) and PTTEP ENERGY DEVELOPMENT COMPANY LIMITED (PTTEP ED), companies registered under the laws of Thailand, with their registered offices at 555/1 Energy Complex Building A, Floors 6th, 19th-36th, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand, (PTTEP, PTTEPI and PTTEP ED are collectively referred to as “COMPANY”) and

(4) ..... (hereinafter referred to as “T&I CONTRACTOR”) for the above subject and in consideration of the same, we, (5) ..... (hereinafter referred to as “GUARANTOR”) whose registered address is (6) ..... (hereinafter referred to as “GUARANTOR”) as the T&I CONTRACTOR’s ultimate holding company do hereby enter into the following unconditional and irrevocable undertakings with the COMPANY and its associates and CO-VENTURERS.

- 1.1 The T&I CONTRACTOR shall perform all his obligations contained in CONTRACT No. CONTRACT No. THC19-5246, and
- 1.2 If the T&I CONTRACTOR shall in any respect fail to perform the said obligations contained in the said CONTRACT or commits any breach thereof, we shall ourselves, or through a third party (agreed upon by the COMPANY as the case may be) other than the T&I CONTRACTOR, perform on the simple demand by the COMPANY, or take whatever actions may be necessary to achieve performance of the obligations under the CONTRACT of the T&I CONTRACTOR, and shall defend, indemnify and hold harmless the COMPANY, and its associates and CO-VENTURERS, if any, against any loss, damages, costs and



expenses, for which the T&I CONTRACTOR may be liable there under, howsoever arising from the said failure or breach.

2. We shall not be discharged or released from our undertakings hereunder by any waiver or forbearance by the COMPANY whether as to payment, time, performance or otherwise.
3. This guarantee shall be unconditional, irrevocable, without benefit of discussion and shall continue until all T&I CONTRACTOR's obligations under the CONTRACT have been performed, notwithstanding:
  - i) Any alterations or additions to or deletions from the CONTRACT and/or
  - ii) Any modifications in the shareholding relationship between us and the T&I CONTRACTOR and/or
  - iii) Any assignment in accordance with the CONTRACT.
4. The obligations guaranteed by the GUARANTOR and the liabilities assumed by the GUARANTOR under this guarantee shall under no circumstances be greater than those of the T&I CONTRACTOR under the CONTRACT.
5. The execution, delivery and performance of this guarantee have been and remain duly authorized by all necessary corporate action and do not contravene any provision of law or of the GUARANTOR's constitutional documents or any contractual restriction binding on the GUARANTOR or its assets.
6. This guarantee shall be governed by and be construed in accordance with the laws of the Kingdom of Thailand. Any disputes which cannot be resolved amicably arising in connection with the present Guarantee shall be finally settled by arbitration in accordance with the latest version of the Rules of Arbitration of the International Chamber of Commerce, applicable at the time of submission of the dispute to arbitration. The place of Arbitration shall be Bangkok Thailand and the arbitration proceedings shall be conducted in the English Language. The award of the arbitral tribunal shall be final and binding. Judgement on the award of the tribunal may be entered and enforced by any court of competent jurisdiction.

Yours faithfully,

For and on behalf of (5) .....

Signed: .....

Name: .....

Title: .....

*Attach the seal and signature of T&I CONTRACTOR's ultimate holding company and such formalities as may be required under the law or articles of association to render a unilateral promise binding on T&I CONTRACTOR'S ultimate holding company. Each page (other than signature page) to be duly initialed.*

- (1) Parent Company Guarantee Reference Number
- (2) Date of Guarantee
- (3) EFFECTIVE DATE of CONTRACT No THC19-5246.
- (4) Name of the T&I CONTRACTOR
- (5) Name of the T&I CONTRACTOR's ultimate holding company
- (6) Address of the T&I CONTRACTOR's ultimate holding company

**ANNEX 2**

**MUTUAL INDEMNITY AND WAIVER  
OF RECOURSE AGREEMENTS**

## ANNEX-2/A

### Mutual Indemnity and Waiver of Recourse Agreement

#### (Version for T&I CONTRACTOR)

Whereas, PTTEP EXPLORATION AND PRODUCTION COMPANY LIMITED (PTTEP), PTTEP INTERNATIONAL LIMITED (PTTEPI) and PTTEP ENERGY DEVELOPMENT COMPANY LIMITED (PTTEP ED), companies registered under the laws of Thailand, with their registered offices at 555/1 Energy Complex Building A, Floors 6th, 19th-36th, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand, (PTTEP and PTTEP ED are collectively referred to as "COMPANY") have entered into CONTRACT No THC19-5246 with (1) ..... (hereinafter referred to as the "Undersigned Party"), a company organized and existing under the laws of (2) ....., having its registered office at (3) ....., regarding the performance of T&I WORK, all in accordance with the terms and requirements of the CONTRACT, (referred to as OPERATIONS);

**whereas** the COMPANY and the Undersigned Party may have entered into, or shall enter into, contracts or agreements with other contractors for the performance of services in connection with, related to, or in support of the OPERATIONS and certain of said other contractors have signed, or may sign, counterparts of like Mutual Indemnity and Waiver of Recourse Agreements (all the signatories of such Agreements relating to the OPERATIONS being hereafter designated as SIGNATORIES or SIGNATORY);

**whereas** the SIGNATORIES wish to modify their relationship under the general law and avoid entirely disputes as to their liabilities for damage or injuries to their respective property or employees;

Now, therefore the Undersigned Party, in consideration of the reciprocal covenants of the other SIGNATORIES agrees with them that:

1. The Undersigned Party shall indemnify, hold harmless, and waive all rights of recourse it may have against other SIGNATORIES for damage or loss of property it owns, or has in its possession by virtue of an arrangement made with an entity which is not a SIGNATORY, and for any indirect or consequential losses resulting from such damage or loss even in case of negligence of such other SIGNATORY.
2. The Undersigned Party shall have no liability whatsoever for damage to or loss of property in its possession by virtue of an arrangement made with another SIGNATORY.
3. The Undersigned Party shall indemnify and hold the other SIGNATORIES harmless from and against any loss or liability (including legal expenses) arising out of any claim or cause of action for loss of or damage to property of its PERSONNEL and injuries to or disease or death of its PERSONNEL, regardless of the cause of or reason for said damage, loss, injuries, disease or death and even if caused by negligence.
4. The Undersigned Party undertakes to obtain from its insurers a waiver of rights of subrogation against all other SIGNATORIES in accordance with the provisions of this Agreement governing the mutual liability of the SIGNATORIES with regard to the OPERATIONS.
5. Notwithstanding paragraphs 1 and 2, in the event any property of the Undersigned Party is lost or damaged in the course of transportation by aircraft and a SIGNATORY is the carrier, the Undersigned Party shall be entitled to compensation from such SIGNATORY, within the applicable national law or international conventions.

6. The Undersigned Party shall ensure that those of his SUBCONTRACTORS who are involved in the OPERATIONS become the SIGNATORIES and shall forthwith furnish the COMPANY with the original counterparts of the Agreements executed by its SUBCONTRACTORS. It shall furthermore advise the COMPANY of its SUBCONTRACTORS which have refused to become the SIGNATORIES.
7. The COMPANY shall upon request provide the Undersigned Party with a copy of every counterpart of this Agreement which is executed by another SIGNATORY.
8. This Agreement shall inure to the benefit of and become binding upon the Undersigned Party as to any other SIGNATORIES upon the later of the date of execution of a counterpart hereof by such other SIGNATORY. Conversely, this Agreement shall be binding upon the Undersigned Party only with respect to contractors and SUBCONTRACTORS who have become the SIGNATORIES prior to the occurrence giving rise to a claim.
9. Any contractor, consultant or SUBCONTRACTOR, etc., performing services for the COMPANY or another SIGNATORY in connection with the OPERATIONS who has not entered into a formal contract for the performance of such services may nevertheless become a SIGNATORY by signing a counterpart hereof which shall, as to the subject hereof, govern the relationship between such new SIGNATORY and the other SIGNATORIES and also by extension his relations with the COMPANY.
10. This Agreement may be executed in any number of counterparts as necessary, but all such counterparts shall together constitute one legal instrument.
11. The performance and the interpretation of this Agreement shall be governed by the Laws of Thailand.

Entered into this ..... day of October 2020

**For and on behalf of the T&I CONTRACTOR**

Signature: .....

Name: .....

Title: .....

**Witnessed By:**

Signature:

Name: .....

Title: .....

**For and on behalf of the COMPANY**

Signature:

Name: Mr. Napa Medheethunyapong  
Title: Vice President, Wellhead Platform  
Construction Department.

**Witnessed By:**

Signature:

Name: Mr. Roongroj Khaosut  
Title: Manager, Construction Section,  
Wellhead Platform Construction  
Department.

Signature:

Name: Mr. Chindanai Preuksapanich  
Title: Officer, Procurement and Contracts  
Global Supply Chain, Procurement and  
Contracts Department

## ANNEX-2/B

### Mutual Indemnity And Waiver Of Recourse Agreement (Version For Subcontractor)

Whereas, (1) ..... (hereinafter referred to as T&I CONTRACTOR) has entered into CONTRACT No. THC19-5246 dated (2) ..... with PTTEP EXPLORATION AND PRODUCTION COMPANY LIMITED (PTTEP), PTTEP ENERGY DEVELOPMENT COMPANY LIMITED (PTTEP ED) and PTTEP INTERNATIONAL LIMITED (PTTEPI), companies registered under the laws of Thailand, with their registered offices at 555/1 Energy Complex Building A, Floors 6th, 19th-36th, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand, (PTTEP, PTTEP ED and PTTEPI are collectively referred to as "COMPANY") regarding the performance of T&I WORK, all in accordance with the terms and requirements of CONTRACT No. THC19-5246 for Bundled Phases 3 Project (T&I Part), (referred to as OPERATIONS);

**and whereas** the T&I CONTRACTOR has subcontracted part of such T&I WORK to (3) ..... (hereinafter referred to as the Undersigned Party);

**and whereas** the COMPANY, the T&I CONTRACTOR and the Undersigned Party may have entered into contracts or agreements with other contractors for the performance of services in connection with, related to, or in support of the OPERATIONS and certain of said other contractors have signed, or may sign, counterparts of like Mutual Indemnity and Waiver of Recourse Agreements (all the signatories of such Agreements relating to the OPERATIONS being hereafter designated as SIGNATORIES or SIGNATORY);

**and whereas** the SIGNATORIES wish to modify their relationship under the general law and avoid entirely disputes as to their liabilities for damage or injuries to their respective property or employees.

Now, therefore; the Undersigned Party, in consideration of the reciprocal covenants of the other SIGNATORIES agrees with them that:

1. The Undersigned Party shall indemnify, hold harmless, and waive all rights of recourse it may have against other SIGNATORIES for damage or loss of property it owns, or has in its possession by virtue of an arrangement made with an entity which is not a SIGNATORY, and for any indirect or consequential loss resulting from such damage or loss even in case of negligence of such other SIGNATORY.
2. The Undersigned Party shall have no liability whatsoever for damage to or loss of property in its possession by virtue of an arrangement made with another SIGNATORY.
3. The Undersigned Party shall indemnify and hold the other SIGNATORIES harmless from and against any loss of liability (including legal expenses) arising out of any claims or cause of action for loss of or damage to property of its personnel and injuries to or disease or death of its personnel, regardless of the cause of or reason for said damage, loss, injuries, disease or death and even if caused by negligence.
4. The Undersigned Party undertakes to obtain from its insurers a waiver of rights of subrogation against all other SIGNATORIES in accordance with the provisions of this Agreement governing the mutual liability of the SIGNATORIES with regard to the OPERATIONS.
5. Notwithstanding paragraphs 1 and 2, in the event any property of the Undersigned Party is lost or damaged in the course of transportation by aircraft and a SIGNATORY is the carrier, the

Undersigned Party shall be entitled to compensation from such SIGNATORY, within the limits and within the conditions of such SIGNATORY's insurance in accordance with applicable national law or international conventions.

6. The Undersigned Party shall ensure that those of his SUBCONTRACTORS who are involved in the OPERATIONS become SIGNATORIES and shall forthwith furnish the COMPANY with the original counterparts of this Agreement executed by its SUBCONTRACTORS. It shall furthermore advise the COMPANY of its SUBCONTRACTORS which have refused to become SIGNATORIES.
7. The COMPANY shall upon request provide the Undersigned Party a copy of every counterpart of this Agreement which is executed by another SIGNATORY.
8. This Agreement shall ensure to the benefit of and become binding upon the Undersigned Party as to any other SIGNATORIES upon the later of the date of execution by the Undersigned Party and the date of execution of a counterpart hereof by such other SIGNATORY. Conversely, this Agreement shall be binding upon the Undersigned Party only with respect to contractors and SUBCONTRACTORS who have become SIGNATORIES prior to the occurrence giving rise to a claim.
9. Any contractor, consultant or SUBCONTRACTOR, etc., performing services for the COMPANY or another SIGNATORY in connection with the OPERATIONS who has not entered into a formal contract for the performance of such services may nevertheless become a SIGNATORY by signing a counterpart hereof which shall, as to the subject hereof, govern the relationship between such new SIGNATORY and the other SIGNATORIES and also by extension his relations with the COMPANY
10. This Agreement may be executed in any number of counterparts as necessary but all such counterparts shall together constitute one legal instrument.
11. The performance and the interpretation of this Agreement shall be governed by the Laws of Thailand.

Entered into this .....day of .....

For the **Undersigned Party**

Witnessed by **the T&I CONTRACTOR**

Signature : .....

Signature : .....

Name : .....

Name : .....

Title : .....

Title : .....

Witnessed by

Signature: .....

Name: .....

Title: .....

- (1) Name of the T&I CONTRACTOR
- (2) EFFECTIVE DATE of CONTRACT No THC19-5246
- (3) Name of SUBCONTRACTOR

**ANNEX-3**

**LIABILITY AND INSURANCE AGREEMENT  
FROM SUBCONTRACTORS**

**ANNEX-3**

**Form of Liability And Insurance Agreement From SUBCONTRACTOR**

Whereas (1)....., has contracted with (2) ..... for T&I WORK to be done or services to be carried out for (2) ..... in connection with (3) .....

and whereas (1)..... has subcontracted or intends to subcontract such T&I WORK or services or part of same to us the Undersigned (4) ..... established at (5) ..... represented by (6) .....

We the Undersigned, have taken notice of all obligations placed on SUBCONTRACTOR as per article 11 of CONTRACT No. (7) ..... between (2) ..... and (1) ....., and have especially taken notice of articles 36 – 44 of said CONTRACT, and acknowledge by these presents that we are bound by and undertake to comply with all such obligations.

Entered into this .....day of .....

*(Common Seal of signature of the Undersigned or such other formality as may be required under the law to render such undertaking binding on the Undersigned.)*

For the **Undersigned Party**

Witnessed by **T&I CONTRACTOR**

Signature : .....

Signature : .....

Name : .....

Name : .....

Title : .....

Title : .....

Witnessed by

Signature: .....

Name: .....

Title: .....

- (1) Reference of the T&I CONTRACTOR
- (2) Reference of the COMPANY
- (3) Reference of the PROJECT
- (4) Reference of the SUBCONTRACTOR
- (5) Address of main office of undersigned SUBCONTRACTOR
- (6) Undersigned officer's name and quality
- (7) Reference of the CONTRACT



**ANNEX-4 NOT USED**

**ANNEX-5**  
**FORM OF CERTIFICATES OF ENDORSEMENT**

**ANNEX-5/A**

**CERTIFICATE OF ENDORSEMENT OF THE DESIGN DOSSIER**

From: T&I CONTRACTOR'S NAME  
T&I CONTRACTOR's address

PTTEP EXPLORATION AND PRODUCTION COMPANY LIMITED  
PTTEP INTERNATIONAL LIMITED  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED,  
555/1, Energy Complex Building A,  
Floors 6, 19 – 36, Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900,  
Thailand.

Date: .....

Reference: .....

Subject: Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

We, ....., hereby declare as follows:

- 1 The capitalized words herein shall have the same meaning as ascribed to them in CONTRACT No. THC19-5246.
- 2 We have read, carefully reviewed and examined the DESIGN DOSSIER and all other documents, related and with regard thereto and we are satisfied with the adequacy, sufficiency, cohesion, nature, type, quality, quantity, degree of detail and completeness of the DESIGN DOSSIER.
- 3 Accordingly, we hereby confirm that the DESIGN DOSSIER is fit for its purpose as per the terms and requirements of the CONTRACT, notwithstanding any error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy or mis-description of whatsoever nature that may exist.
- 4 We hereby confirm, with the exception of RELY UPON INFORMATION, we hereby endorse and accept without amendment, reservation or exception vis-à-vis COMPANY, full technical and commercial responsibility associated with the DESIGN DOSSIER as if we had prepared the DESIGN DOSSIER ourselves.
- 5 We also hereby confirm that the DESIGN DOSSIER is adequate and suitable as a basis for the timely, correct and proper performance of the T&I WORK.
- 6 Subject to sub-article 13.5 of the AGREEMENT, we hereby waive all rights of recourse, for whatsoever reason, in respect thereof against COMPANY and shall make no CLAIMS with respect to the adequacy sufficiency, cohesion, nature, type, quality, quantity, degree of detail and

completeness of the DESIGN DOSSIER nor for any error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy or mis-description of whatsoever nature contained therein, nor for the use of the DESIGN DOSSIER in the performance of the T&I WORK.

**For and on behalf of T&I CONTRACTOR**

Signature:.....

Name: .....

Title: .....

Attachment-1      Authorization to Sign this Certificate if Design Endorsement on behalf of the T&I CONTRACTOR

**ANNEX-5/B**

**CERTIFICATE OF ENDORSEMENT OF T&I AND T&I INTERACE ACTIVITY  
(by T&I CONTRACTOR)**

From: T&I CONTRACTOR'S NAME  
T&I CONTRACTOR's address

PTTEP EXPLORATION AND PRODUCTION COMPANY LIMITED <sup>Note-1</sup>  
PTTEP INTERNATIONAL LIMITED <sup>Note-1</sup>  
PTTEP ENERGY DEVELOPMENT COMPANY LIMITED, <sup>Note-1</sup>  
555/1, Energy Complex Building A,  
Floors 6, 19 – 36, Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900,  
Thailand.

Date: .....

Reference: .....

PHASE: .....

PLATFORM: .....

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

We, the T&I CONTRACTOR hereby declare and confirm as follows:

- 1 Capitalized words herein shall have the same meaning ascribed to them in the above CONTRACT.
- 2 We have carefully read reviewed and examined the **insert the title of the EPC and T&I Interface Package the T&I CONTRACTOR shall endorse**, all as listed and further described in Attachment-1 hereto and hereinafter referred to as the T&I and T&I Interface Package.
- 3 We are satisfied with the adequacy, sufficiency, cohesion, nature, type, quality, quantity, degree of detail and completeness of the above mentioned T&I and T&I Interface Package insofar it, in full and or in part relates to the T&I WORK and the performance thereof.
- 4 We hereby confirm that the contents of the above mentioned T&I and T&I Interface Package in so far as it relates to the T&I WORK and or the performance of the T&I WORK are fit for the purposes it intended as per the terms of CONTRACT No. THC19-5246 notwithstanding any error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy or mis-description of whatsoever nature that may exist.
- 5 We hereby endorse and accept without amendment, reservation or exception vis-à-vis COMPANY, full technical and commercial responsibility associated with the contents of the above mentioned T&I and T&I Interface Package insofar as it relates to and or is used in the T&I WORK and the performance thereof, as if we had prepared the T&I and T&I Interface Package ourselves.

- 6 We also hereby confirm that the above referenced T&I and T&I Interface Package is an adequate and suitable as a basis for the timely, correct and proper performance of the T&I WORK.
- 7 Accordingly, and pursuant to sub-article 14.15 of the AGREEMENT, we hereby waive all rights of recourse against COMPANY and/or the T&I CONTRACTOR and shall not make any CLAIM whatsoever against COMPANY and/or the T&I CONTRACTOR with respect to the adequacy sufficiency, cohesion, nature, type, quality, quantity, degree of detail and completeness of the referenced T&I and T&I Interface Package nor shall we make any CLAIM against the COMPANY and/or the T&I CONTRACTOR for any error, omission, deficiency, inaccuracy, contradiction, ambiguity, discrepancy or mis-description of whatsoever nature contained in the above referenced T&I and T&I Interface Package, nor shall we CLAIM for the use of the referenced T&I and T&I Interface Package in the performance of the T&I WORK.
- 8 The above waiver of rights by us and undertaking not to CLAIM (clause 7 above) shall also apply to SUBCONTRACTORS and VENDOR of the T&I CONTRACTOR.

**For and on behalf of T&I CONTRACTOR**

Signature: .....

Name: .....

Title: .....

Attachment-1 List of contents of the above referenced T&I and T&I Interface Package

.

**ANNEX-6**  
**INTERIM CERTIFICATES**

**ANNEX-6A**

Not Used



**ANNEX-6/B**

**READY FOR LOAD OUT CERTIFICATE**

*(Applicable For New Topsides, Jackets and Appurtenances only)*

Date: [.....]

Reference: [.....]

PHASE: [.....]

PLATFORM: [.....]

Contract No. THC19-5246 Bundled Phases 3 Project

Effective Date of this Certificate: [.....]

1. Pursuant to sub-article 19.1.1 b) of the AGREEMENT, the EPC CONTRACTOR hereby confirms without exception that the following:

[.....insert description and details .....] ]

are in a state of readiness to commence the load out operations of the same and the related load out procedures and related EPC and T&I CONSTRUCTION EQUIPMENT have been approved by the Marine Warranty Surveyor. The T&I CONTRACTOR has inspected the abovementioned PLANT components and hereby confirms they are in a state of readiness to commence the load out operations.

2. Accordingly, the COMPANY hereby confirms its APPROVAL and the EPC CONTRACTOR shall perform the load out and sea fastening of the abovementioned PLANT components accordingly, notwithstanding Punch List Items are outstanding.

3. Issuance of this READY FOR LOAD OUT CERTIFICATE shall not relieve the EPC CONTRACTOR from his obligations under the T&I CONTRACT nor the T&I CONTRACTOR from his obligations under the T&I CONTRACT.

4. This READY FOR LOAD OUT CERTIFICATE is issued without prejudice to the COMPANY's right under contract and at law and shall not constitute a waiver of any other rights and remedies the COMPANY has under the EPC CONTRACT, the T&I CONTRACT and APPLICABLE LAWS, and the COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

5. The EPC CONTRACTOR hereby confirms and agrees he shall rectify and complete the outstanding EPC WORK and the EPC Punch List Items in a timely manner as per the terms of the EPC CONTRACT and as otherwise may be instructed by the COMPANY.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : [.....]

Signature : [.....]

Name : [.....]

Name : [.....]

Title : [.....]

Title : [.....]

For and on behalf of the T&I CONTRACTOR

Signature : [.....]

Name : [.....]

Title: : [.....]

Attachments: Marine Warranty Surveyor Certificate.  
List and Details of Punch List Items

**ANNEX-6/C**

**READY FOR TRANSPORTATION CERTIFICATE**  
*(Applicable For New Topsides, Jackets and Appurtenances only)*

Date: .....

Reference: .....

PHASE: .....

PLATFORM: .....

Contract No. THC19-5246 Bundled Phases 3 Project

Effective Date of this Certificate: .....

1. Pursuant to sub-article 19.1.1 c) of the AGREEMENT, the T&I CONTRACTOR and the T&I CONTRACTOR hereby confirm without exception that the following:

[insert description .....  
.....  
.....]

are in a state of readiness for transportation to the SITE and that transportation MARINE SPREAD, the sea fastening, and all the related documents with regard to sea fastening and transportation have been approved by the Marine Warranty Surveyor.

2. The T&I CONTRACTOR hereby warrants that the above referenced PLANT components including sea fastening are ready in all respects for sail away and towage.
3. The T&I CONTRACTOR hereby warrant and confirms that all necessary and appropriate preparations for marine transportation are completed and the MARINE SPREAD is ready in all respects for sail away and towage.
4. The COMPANY hereby confirms its APPROVAL accordingly
5. Issuance of this READY FOR TRANSPORTATION CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations and liabilities under the T&I CONTRACT and/or APPLICABLE LAWS.
6. Issuance of this READY FOR TRANSPORTATION CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations and liabilities under the T&I CONTRACT and/or APPLICABLE LAWS.
7. Nothing in this READY FOR TRANSPORTATION CERTIFICATE shall be deemed to constitute a waiver of any other rights and remedies the COMPANY has under the EPC CONTRACT, the T&I CONTRACT and APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.
8. The T&I CONTRACTOR hereby confirms and agrees he shall rectify and complete the outstanding T&I WORK and T&I Punch List Items (f any) in a timely manner as per the terms of the T&I CONTRACT and as otherwise may be required by the COMPANY.

For and on behalf of the T&I CONTRACTOR

Signature : .....  
Name : .....  
Title : .....

For and on behalf of the COMPANY

Signature : .....  
Name : .....  
Title : .....

For and on behalf of the T&I CONTRACTOR

Signature : .....  
Name : .....  
Title: : .....

Attachments: Marine Warranty Surveyor Certificate.  
List and Details of Punch List Items.

.

**ANNEX-6/D**

**READY FOR RELOCATION CERTIFICATE**

*(Existing Wellhead Platform Topsides only)*

Date: .....

Reference: .....

PHASE: .....

PLATFORM: .....

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

Effective Date of this Certificate: .....

- 1. Pursuant to sub-article 19.1.1 d) of the AGREEMENT, the T&I CONTRACTOR hereby confirms without exception that the following:

**[insert description .....**  
 .....  
**]**

are in a state of readiness for relocation, lifting and Load Out Operations of the above mentioned existing Wellhead Platform Topsides and that all the related documents with regard to preparation for Load Out Operations, lifting and load out procedures including requirements for sea fastening and transportation have been approved by the Marine Warranty Surveyor.

- 2. The T&I CONTRACTOR hereby warrants and confirms that all necessary and appropriate preparations for marine transportation are completed and the MARINE SPREAD is ready in all respects to receive the abovementioned existing Wellhead Platform Topsides.
- 3. The COMPANY hereby confirms its APPROVAL accordingly
- 4. Issuance of this READY FOR RELOCATION CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations and liabilities under the T&I CONTRACT and/or APPLICABLE LAWS.
- 5. This READY FOR RELOCATION CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law, and shall not be deemed to constitute a waiver of any other rights and remedies the COMPANY has under the T&I CONTRACT and APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.
- 6. The T&I CONTRACTOR hereby confirms and agrees he shall rectify and complete the outstanding T&I WORK and T&I Punch List Items (f any) in a timely manner as per the terms of the T&I CONTRACT and as otherwise may be required by the COMPANY.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : .....

Signature : .....

Name : .....

Name : .....

Title : .....

Title : .....

Attachments: Marine Warranty Surveyor Certificate.  
List and Details of Punch List Items.

**ANNEX-6/E**

**READY FOR INSTALLATION CERTIFICATE**

(For applicability referto Exhibit A Annex-4)

Date: .....

Reference: .....

PHASE: .....

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

Effective Date of this Certificate: .....

Subject: READY FOR INSTALLATION CERTIFICATE

- 1. Pursuant to sub-article 19.1.1 e) of the AGREEMENT the T&I CONTRACTOR hereby confirms without exception that the following

[insert description .....  
.....  
.....]

are in a state of readiness for installation at SITE, and that the related MARINE SPREAD and all necessary documentation have been APPROVED, by the Marine Warranty Surveyor.

- 2. The T&I CONTRACTOR also hereby warrants that the existing facilities on SITE are ready to receive the said PLANT components.
- 3. The T&I CONTRACTOR also hereby warrants that all necessary and appropriate preparations for installation having been completed the above referenced part of the PLANT is ready in all respects without exception for installation.
- 4. Issuance of this READY FOR INSTALLATION CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations and liabilities under the T&I CONTRACT and/or APPLICABLE LAWS.
- 5. This READY FOR INSTALLATION CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law, and shall not be deemed to constitute a waiver of any rights and remedies the COMPANY has under the T&I CONTRACT and under APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : .....

Signature : .....

Name : .....

Name : .....

Title : .....

Title : .....

Attachments: Marine Warranty Surveyor Certificate.

**ANNEX-6/F**  
**HANDOVER CERTIFICATE**

Date: [.....]

Reference: [.....]

PHASE: [.....]

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

Effective Date of this Certificate: [.....]

Subject: HANDOVER CERTIFICATE

1. Pursuant to sub-article 19.1.1 f) of the AGREEMENT it is hereby certified that the major component of the above mentioned PLATFORM is HANDED OVER with the exception of Open Punch List Items and Minor Outstanding T&I WORK Items that are listed and described and detailed in Attachments 1 and 2 hereto, if any.

[insert description .....  
 .....  
 .....]

2. The issuance of this HANDOVER CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations under the T&I CONTRACT and APPLICABLE LAWS.

This T&I HANDOVER CERTIFICATE is issued without prejudice to COMPANY rights under the T&I CONTRACT and at law and shall not constitute a waiver of any rights and the COMPANY has under the T&I CONTRACT and APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

3. The T&I CONTRACTOR hereby confirms and agrees he shall rectify and complete any and all Open Punch List Items and Minor Outstanding T&I WORK Items that are listed in Attachments 1 and 2 hereto, subject to the conditions stated therein, in accordance with the terms and requirements of the T&I CONTRACT and as the COMPANY may instruct.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : [.....]

Signature : [.....]

Name : [.....]

Name : [.....]

Title : [.....]

Title : [.....]

Attachment-1 List, Descriptions and Details of Open Punch List Items

Attachment-2 List, Descriptions and Details of Outstanding T&I WORK Items.



**ANNEX-6/G**  
**MARINE SPREAD RELEASE CERTIFICATE**

Date: [REDACTED]

Reference: [REDACTED]

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

Effective Date of this Certificate: [REDACTED]

Subject: MARINE SPREAD RELEASE CERTIFICATE

1 Pursuant to sub-article 19.1.1 g) of the AGREEMENT it is hereby certified that, to the best of COMPANY's knowledge, the T&I WORK required to be performed at the SITE involving the following MARINE SPREAD:

[insert description .....  
.....  
.....]

is completed except for the T&I WORK listed (if any) in Attachment-1 hereto, therefore the above mentioned MARINE SPREAD may be demobilized.

It being understood and hereby agreed by the T&I CONTRACTOR however that such demobilization shall be at the T&I CONTRACTOR's sole risk and any necessary remobilization, for whatever reason, shall be at the T&I CONTRACTOR's own cost and expense.

2. Issuance of this MARINE SPREAD RELEASE CERTIFICATE shall not relieve CONTRACTOR from his obligations under the terms and requirements of the above mentioned CONTRACT.

3. This MARINE SPREAD RELEASE CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law, and shall not be deemed to constitute a waiver of any rights and remedies that the COMPANY has under the above mentioned CONTRACT and/or under APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : [REDACTED]

Signature : [REDACTED]

Name : [REDACTED]

Name : [REDACTED]

Title : [REDACTED]

Title : [REDACTED]

Attachment-1 List of WORK items not yet completed by the T&I CONTRACTOR.

**ANNEX-7**  
**PROVISIONAL ACCEPTANCE CERTIFICATE**

**PROVISIONAL ACCEPTANCE CERTIFICATE**

Date: [.....]

Reference: [.....]

PHASE: [.....]

PLATFORM: [.....]

Contract No. THC19-5246 Bundled Phases 3 Project (T&I Part)

Effective Date of this Certificate: [.....]

- 1. Pursuant to sub-article 19.2 of the AGREEMENT, it is hereby certified that following PLANT or part thereof described below is completed except for the minor outstanding T&I WORK Items listed in Attachment-1 hereto.

**[insert description of the PLANT or part thereof which is completed]**

- 2. Issuance of this PROVISIONAL ACCEPTANCE CERTIFICATE shall not relieve the T&I CONTRACTOR from his obligations under the T&I CONTRACT and APPLICABLE LAWS, including warranty obligations and other provisions of the T&I CONTRACT which expressly or by their nature survive this the issue of this certificate.
- 3. This PROVISIONAL ACCEPTANCE CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law, and shall not be deemed to constitute a waiver of any rights and remedies the COMPANY has under the T&I CONTRACT and APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.
- 4. The T&I CONTRACTOR hereby confirms and agrees he shall complete all the outstanding T&I WORK in a timely manner as per the terms of the T&I CONTRACT no later than the respective dates stated in Attachment-1 hereto or as otherwise may be instructed by the COMPANY.

It being understood and agreed that should the T&I CONTRACTOR fail to complete the outstanding T&I WORK Items as aforesaid, this PROVISIONAL ACCEPTANCE CERTIFICATE shall become no longer valid, the requirements of sub-article 19.2 shall apply in full and the Effective Date of the PROVISIONAL ACCEPTANCE CERTIFICATE for the above mentioned PLANT or part thereof shall be revised accordingly.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : [.....]

Signature : [.....]

Name : [.....]

Name : [.....]

Title : [.....]

Title : [.....]

Attachment-1 List and Details of Outstanding T&I WORK Items.

**ANNEX 8**  
**FORM OF FINAL ACCOUNT CERTIFICATE**

**FINAL ACCOUNT CERTIFICATE**

CONTRACT No: THC19-5246

Title: Bundled Phases 3 Project (T&I Part)

PHASE: .....

Effective Date of this Certificate: .....

1. The T&I/T&I CONTRACTOR hereby confirms and presents that the final value of the T&I WORK under the T&I CONTRACT is USD ..... (United States Dollars .....), as per details attached.
2. The T&I CONTRACTOR hereby affirms and acknowledges that the above amount is the full and final amount claimed by the T&I CONTRACTOR under the T&I CONTRACT.  
  
Accordingly the T&I CONTRACTOR hereby waives any and all existing and future CLAIMS with respect to any further sums arising from and/or in connection with the T&I CONTRACT.
3. The T&I CONTRACTOR hereby declares there are no liens on COMPANY Property and to have duly paid his PERSONNEL, SUBCONTRACTORS and VENDORS and where applicable third parties and that no CLAIM from any of them or from any third party remains unsatisfied or is foreseeable and hereby commits himself to pay, and save, defend, indemnify and hold harmless the COMPANY, its shareholders, CO-VENTURERS, and AFFILIATES and the owners of the SITE, for any and all such CLAIMS and liens that may exist and/or could however so arise in the future from and/or in connection with the performance of the T&I WORK.
4. Issuance of this FINAL ACCOUNT CERTIFICATE shall not release the T&I CONTRACTOR from his warranty obligations and other provisions of the CONTRACT which expressly or by their nature survive the said certificate.
5. This FINAL ACCOUNT CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law and shall not constitute a waiver of any rights and the COMPANY has under the T&I CONTRACT and APPLICABLE LAWS. The COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : .....  
Name : .....  
Title : .....

Signature : .....  
Name : .....  
Title : .....

Attachment Detailed Statement of the Final Amount

**ANNEX-9**  
**FINAL ACCEPTANCE CERTIFICATE**

**Form of FINAL ACCEPTANCE CERTIFICATE**

CONTRACT No: THC19-5246

Title: Bundled Phases 3 Project (T&I Part)

PHASE: .....

Effective Date of this Certificate: .....

Whereas the T&I WORK for the abovementioned PHASE was provisionally accepted as per the PROVISIONAL ACCEPTANCE CERTIFICATES listed in Attachment-1 hereto.

Whereas the T&I CONTRACTOR has completed the outstanding T&I WORK items listed in the attached PROVISIONAL ACCEPTANCE CERTIFICATES.

Whereas the T&I CONTRACTOR has rectified all known defects and deficiencies in the PLANT comprising the above PHASE and the final WARRANTY PERIOD for such PHASE has ended.

Whereas the FINAL ACCOUNT CERTIFICATE for the abovementioned PHASE has been submitted by the T&I CONTRACTOR, APPROVED by the COMPANY and signed by the PARTIES.

Now it is hereby agreed as follows:

- 1 Pursuant to article 21 of the AGREEMENT it is hereby certified and agreed, by the issuance of this FINAL ACCEPTANCE CERTIFICATE, that T&I CONTRACTOR has duly completed his obligations under the T&I CONTRACT except for those that survive this Certificate.
- 2 Issuance of this FINAL ACCEPTANCE CERTIFICATE shall not relieve the T&I CONTRACTOR from any obligations which expressly or by their nature survive this certificate.
- 3 This FINAL ACCEPTANCE CERTIFICATE is issued without prejudice to the COMPANY rights under the T&I CONTRACT and at law, and shall not be deemed to constitute a waiver of any other rights and remedies that the COMPANY has under the T&I CONTRACT, APPLICABLE LAWS and the COMPANY hereby reserves the right to exercise any and all such rights and remedies, including to apply liquidated damages.

For and on behalf of the T&I CONTRACTOR

For and on behalf of the COMPANY

Signature : .....

Signature : .....

Name : .....

Name : .....

Title : .....

Title : .....

**ANNEX 10**  
**Form of NOTICE TO PROCEED**



**NOTICE TO PROCEED**

CONTRACT No: THC19-5246

Title: Bundled Phases 3 Project (T&I Part)

PHASE: .....

Effective Date of this NOTICE TO PROCEED is .....

1. The T&I CONTRACTOR is hereby instructed to immediately proceed with the T&I WORK for the abovementioned PHASE in accordance with the requirements of this NOTICE TO PROCEED and the attached Statement of Requirements.
2. The T&I WORK for the abovementioned PHASE shall be performed in a timely manner in strict conformity with the requirements of this NOTICE TO PROCEED, the attached Statement of Requirements otherwise in accordance with the terms of the abovementioned T&I CONTRACT.
3. [insert name of PHASE] comprises the following PLATFORMS:

PLATFORM	Wellhead Platform	Pipeline		Tie-in to
		Approx. Length	Size	

all as further described in the attached Statement of Requirements.

4. Required COMPLETION DATES for [Insert name of PHASE] are follows:

PLATFORM	Required COMPLETION DATES			
	CD1	CD2	CD3	CD4

For explanation and description of required COMPLETION DATES refer to Exhibit C.

5. The T&I CONTRACTOR shall immediately commence and proceed with the T&I WORK under this NOTICE TO PROCEED.

For and on behalf of the COMPANY

**Napa Medheethunyapong**  
**COMPANY REPRESENTATIVE**

Attachment: Statement of Requirements (..... pages).

## **Exhibit A**

### **Scope of WORK**

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**Annexes to Exhibit A**

- Annex-1 Procedure and Minimum List for CONTRACTOR DOCUMENTS
- Annex-2 List of Software
- Annex-3 Certifying Authority Scope of Work Scope of Work
- Annex-4 Marine Warranty Surveyor Scope of Work
- Annex-5 Pre-Commissioning / Commissioning Responsibilities
- Annex-6 Preservation and Protection
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- Annex-8 Minimum List of Spare Parts/ Special Tools and SPIR Form (Not Used)
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- Annex-10 Interface Matrix
- Annex-11 Topside Relocation
- Annex-12 Material Group for Procurement
- Annex-13 New FSO pipeline, PLEM and Tie-ins
- Annex-14 Telecom and Control System Modification

## 1.0 Introduction

### 1.1 Purpose of Exhibit A

This Exhibit A is a guide to the PLANT and the WORK. It shall be read together with the AGREEMENT and Exhibits B, C, E, G, H, I, J, K and L. Anything stated in one but not another shall be considered as a requirement of all.

### 1.2 Acronyms and Definitions

The following acronyms and words appearing in this Exhibit A and its Annexes shall have the meaning assigned to them below or otherwise should the context require.

ALARP	As low as reasonably practical
CA	Certifying Authority
CIQ	Customs Immigration Quarantine
EDMS	Electronic Document Management System
EPC	Engineering, Procurement, Construction, Onshore Pre-commissioning, Onshore Commissioning and Loadout
EPC CONTRACTOR	CONTRACTOR of Contract No. THC19-5245
FAT	Factory Acceptance Tests
GMI	General marine instructions
GTI	Geotechnical Information
GSI	Geophysical Information
GWHP	Gas Wellhead Platform
HAZID	Hazard Identification Studies
KOM	Kick-Off Meeting
MAE	Major Accident Events
MDDR	Master Documents and Deliverables Register
MS	Management system
MTO	Material take off
MWS	Marine Warranty Surveyor
NDT	Non-Destructive Testing
NTP	Notice to Proceed
OWHP	Oil Wellhead Platform
O&M	Operating and Maintenance
PEGS	PTTEP Engineering General Specification
PO	Purchase Order
POB	Personnel On Board
PSR	Procurement Status Report
PTR	PROJECT Technical Review
QA/QC	Quality Assurance and Quality Control
RFQ	Request for Quotation
ROS	Required on WORKSITE
SAT	Site Acceptance Test
SCADA	Supervisory Control and Data Acquisition
SCE	Safety Critical Element
SSHE	Safety, security, health and environment

SIMOPS	Simultaneous operations
SPIR	Spare Parts and Interchange ability Record
T&I	Transportation and Installation
T&I CONTRACTOR	CONTRACTOR of Contract No. THC19-5246
TBE	Technical Bid Evaluation

Capitalized words in this Exhibit A and its Annexes (but not in the Section titles) shall have the meaning ascribed to them in Section 2.1 of the AGREEMENT.

### **1.3 Disclaimer**

The descriptions described in this Exhibit A are provided for information and shall not be read and or construed so as to limit or restrict the obligations and responsibilities of the T&I CONTRACTOR nor the extent, type and quality of the WORK to be performed and PLANT to be provided, all as per the requirements of the CONTRACT and APPLICABLE LAWS

## 2.0 PROJECT Description

### 2.1 General Overview

Bundled 3 EPC of Wellhead Platforms, Associated Pipelines, and Brownfield Modifications of Arthit, G1/61 and G2/61 Field Development located in the Gulf of Thailand (GoT). The PROJECT comprises of topside, jacket, appurtenances, piled foundations, associated pipelines, tie-ins and brownfield modifications.

### 2.2 Arthit Field

Arthit Field is located in the GoT and comprises concession block numbers 14A, 15A and 16A, it lies approximately 35 km northeast of the existing Greater Bongkot North Field, approximately 625 km from Rayong Province and approximately 250 km northeast of the town of Songkhla.

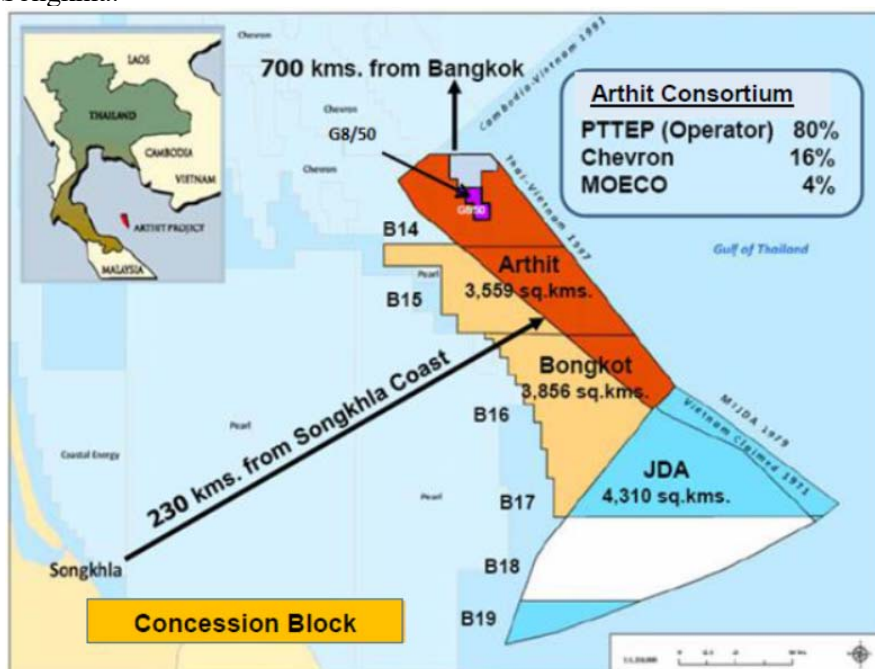


Figure 1: Arthit Field

### 2.3 G1/61 and G2/61 Field

Block G1/61 is located in the Pattani Basin which is approximately 270 km long and 100 km wide, oriented in the north-south direction. The Pattani Basin has the highest total production rate of gas, oil and condensate in the GoT. Block G2/61 is located in the North Malay Basin which is the Southeastern extent of the Pattani Basin. The North Malay Basin is a large sedimentary basin that contains Cenozoic sediments, with a layer thickness of 9 kilometers. The North Malay Basin covers an area of approximately 18,000 square kilometers.

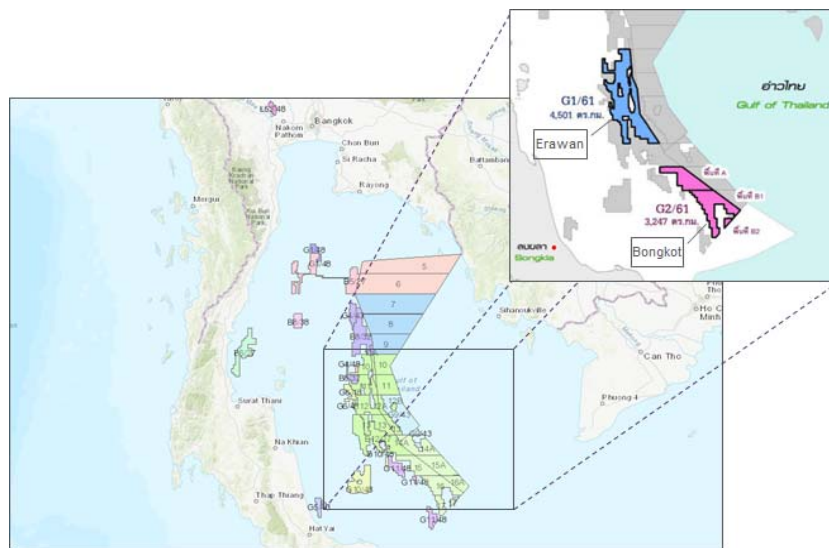


Figure 2: G1/61 and G2/61 Field

## 2.4 Bundled Phase 3 Development Project

The main objective of Bundled Phase 3 Development is to maintain the gas potential of Arthit, G1/61 and G2/61 Field from year 2022 onwards.

The WORK shall include project management, detailed engineering, procurement, fabrication, construction, transportation and installation of Wellhead Platforms, associated pipelines, tie-ins and brownfield modification WORK. The WORK also includes the provision of Topside Relocation, subsea Wye or PLEM when required.

The brownfield modification and tie-in WORK involve the installation of subsea tie in spools, new risers, riser protectors, subsea clamps, deck extension, pig receiver and associated piping, instrumentation and electrical WORK.

WORK shall be separated into each Work Package in accordance with Section 3.0

## 2.5 Minimum Order of Wellhead Platforms

The number of Wellhead Platforms per PHASE will be instructed by COMPANY to the EPC and T&I CONTRACTOR in the applicable NOTICE TO PROCEED.

NOTICE TO PROCEED may contain all or partial of development phase of each G1/61, G2/61 and Arthit field for each installation year. However, COMPANY shall ensure to issue NOTICE TO PROCEED to EPC and T&I CONTRACTOR to execute the WORK continuously for each offshore installation year in accordance with the COMPLETION DATE in Exhibit C. COMPANY may instruct EPC and T&I CONTRACTOR to perform more than this minimum quantity mention in below table if require,

**Minimum Order of Wellhead Platforms**

Installation Year	Number of Wellhead Platforms
2022	4
2023 - 2026	6

### 3.0 General Description of the PLANT

#### 3.1 General Overview

The WORK includes project management, detailed engineering, procurement, fabrication, load-out, sea fastening, transportation and offshore installation of Wellhead Platform, Associated Pipeline, Tie-ins and Brownfield Modification WORKS.

The PLANT shall comprise of following Work Packages which shall read in conjunction Scope Allocation between EPC and T&I CONTRACTOR in order to understand the outline scope of each party and detailed interfacing matrix refer to Exhibit A, Annex 10:

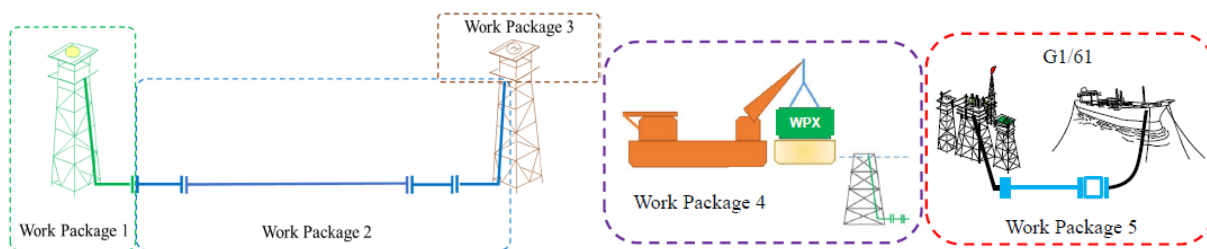


Figure 3: Work Packages

WPK	Activity	Engineering	Procurement	Onshore Construction	Transportation & Installation
1	Wellhead Platform	EPC	EPC <sup>(2)</sup>	EPC	T&I
2	Associated Pipeline and Tie-ins	T&I	T&I	T&I	T&I
3	Existing Topside Brownfield Modification	EPC	EPC	EPC <sup>(1)</sup>	T&I <sup>(1)</sup>
4 <sup>(1)</sup>	Existing Topside Relocation	T&I			T&I
	Existing Topside Verification, New Jacket and Navigation Aids Platform	EPC	EPC <sup>(2)</sup>	EPC	
5	New FSO pipeline, PLEM and tie-ins	T&I	T&I	T&I	T&I

Note

(1) Optional Scope of WORK

(2) T&I CONTRACTOR shall supply all ASME B31.8/B31.4 pipeline, Riser, Bends, Field Joint Coating, subsea flanges, blind flanges and fittings

#### 3.1.1 Work Package 1 – Wellhead Platform



This work package is including but not limited to; topside, jacket, piles, boatlanding, pre-installed risers and appurtenances.

There are 2 designs of Wellhead Platform refer to Section 3.4 for more information:

- a) Gas Wellhead Platform (GWHP)
- b) Oil Wellhead Platform (OWHP)

3.1.2 Work Package 2 – Associated Pipeline and Tie-ins

This work package is including but not limited to; pipelines, coatings, anodes, pigging, hydro testing, subsea tie-ins spools (with flange protector) connect between New Wellhead Platform and Existing Wellhead Platform, PLEM or Wye and etc.

Optional scope of WORK

- Post-install riser, subsea clamps and riser protector
- Subsea PLEM and WYE
- Pipeline Crossing Sleepers
- Pipeline As-Built Survey

For Optional Scope of WORK, COMPANY may choose not to instruct the EPC and T&I CONTRACTOR to perform the Optional Scope of WORK in full, part or none at its sole discretion.

3.1.3 Work Package 3 – Existing Topside Brownfield Modification

Base scope of WORK for Topside Brownfield Modification shall include project management, detailed engineering and procurement WORK on the existing Wellhead Platform and Central Processing Platform. Procurement items as listed in Exhibit A Annex 12 shall be delivered to COMPANY at PTTEP Songkhla base via DAP (Delivery At Place) INCOTERMS 2010 with agreed time frame in accordance with Exhibit C. For onshore construction, transportation and offshore installation are Optional Scope of WORK. COMPANY may choose not to instruct the EPC and T&I CONTRACTOR to perform the Optional Scope of WORK in full, part or none at its sole discretion. The Options of Brownfield Modification are separated in 3 Options in different scope of WORK refer below table,

Option	Offshore Telecommunication Test Link Control system, PLC and SCADA modification	Pig Receiver & Facilities and Topside Riser Hook Up	Deck Extension
1	X		
2	X	X	
3	X	X	X

The location of existing Wellhead Platform and details of Topside Brownfield Modification shall be instructed by COMPANY on a PHASE by PHASE basis by the issuance of NOTICE TO PROCEED for each PLATFORM within a PHASE.

The Scope of WORK covers all WORKS to be carried out by the EPC and T&I CONTRACTOR for, and in relation to the connection to existing Wellhead Platform, which includes modification WORK on Central Processing PLATFORM and existing Wellhead Platform.

The EPC and T&I CONTRACTOR shall be aware that Topside Brownfield Modification WORKS shall be performed while PLATFORMS are producing hydrocarbon fluids. The EPC and T&I CONTRACTOR shall therefore take under consideration the following constraints for the preparation of related procedures, and for execution of the WORK.

COMPANY safety procedures/ policies and regulations have to be strictly complied with, in particular; EPC and T&I CONTRACTOR shall obtain from COMPANY all required WORK permits.

Refer to Exhibit A, Annex-14 and Exhibit E, Annex 6 for more detailed and requirement for Topside Brownfield Modification scope of WORK.

3.1.4 Work Package 4 – Existing Topside Relocation

Base scope of WORK for Existing Topside Relocation will split into 2 main scope of WORK which compose of

- i) Relocate existing Topside from existing location to the new location
- ii) Verified Existing Topside, New Jacket and Navigation Aids Platform

Detailed scope of WORK shall refer to Exhibit A, Annex 11.

3.1.5 Work Package 5 – New FSO pipeline, PLEM and Tie-ins

Base scope of WORK for this package shall include but not limited to; pipeline (pipe in pipe), flexible pipe, coatings, anodes, pigging, hydro testing, new FSO PLEM, subsea tie-in spools (with flange protector) at Central Processing Platform and FSO PLEM side. Detailed scope of WORK refers to Exhibit A, Annex 13.

3.2 **Production of Gas and Well Fluids**

Key aspects of design of Gas wellhead platform are summarized below;

Description	Gas	Condensate	Water
<b>Generic Gas Wellhead Platform</b>			
Platform	80MMSCFD	3,200STBPD	4,000STBPD
Well	12MMSCFD	480STBPD	600STBPD
Booster Compressor	8MMSCFD	750STBPD	1,750STBPD
<b>Generic Oil Wellhead Platform</b>			
Platform	40MMSCFD	6,000STBPD	9,000STBPD
Well	10MMSCFD	1,534STBPD	2,300STBPD

Table 1: Gas and Oil Production Rate

For details and further information refer to Exhibit E DESIGN DOSSIER

**3.3 Not Used**

**3.4 Overview of Wellhead Platform Topsides and Jackets**

**3.4.1 Gas and Oil Wellhead Platform**

The Bundled 3 wellhead platform design is to standardize the facilities to accommodate gas production well in Arhit, G1/61 and G2/62 field and oil production well in G1/61 field respectively. The development aims to minimize the platform cost while ensuring maximum benefit can be obtained from the exploration/ production of reservoirs

**3.4.2 Wellhead Platform Key Feature**

Topside of Gas and Oil Wellhead Platform shall be designed as a not normally manned operated platform of a conventional design and to be installed on the Jacket at the SITE by single lift operation.

For Oil Wellhead Platform, there are 2 types named Oil Wellhead Platform A and Oil Wellhead Platform B that the provided facilities on each type are different in order to serve the different operation requirement. EPC and T&I CONTRACTOR shall refer to Exhibit E, Annex 2 for Layout A and B respectively.

In summary key characteristics of the new wellhead platform topside are:

Key Feature	Generic Gas Wellhead Platform	Generic Oil Wellhead Platform
<b>Platform Design</b>		
Platform Type	Fixed Platform with 4 legs Jacket	
Design Life	15 years	
Water Depth	60m to 80m	
Soil Condition	Weak and Moderate Soil	
Standard Orientation	<u>North:</u> Vent boom & Pipeline corridor <u>North-East:</u> Pipeline corridor <u>South:</u> 1 <sup>st</sup> Jack-up Rig approach <u>South-East:</u> 2 <sup>nd</sup> Jack-up Rig approach <u>West:</u> Boat landing & Tender Assist Drilling Rig approach	
Operation – Not normally manned	<u>Frequency:</u> 1-2 times per month for schedule maintenance, process upset and platform restart <u>Access:</u> Boat landing & Personnel transfer basket	

Key Feature	Generic Gas Wellhead Platform	Generic Oil Wellhead Platform
Operation - POB Max	16 persons (Remark: Drilling crew are not considered since the team will have their own evacuation means)	
Wells Slots	24 conductor-less wells with 1219 mm center to center	
Wellhead Pressure Rating	NP well: 344barg (5,000psig)	
Drilling	Jack-up and Tender Assist Drilling Rig	
Well Services Operation	Slick line, Braided line, E-line, Coiled tubing, Hydraulic work over and Pulling unit	
Production Rate	Refer to section 3.2	Refer to section 3.2
<b>Platform Facilities</b>		
Wellhead Control Panel	Yes	Yes
Well Flowline	3"	3"
Production Manifold	8" DSS & 10" CS	8" DSS & 10" CS
Test Manifold	4"	4"
Booster Compressor Manifold	6"	Not applicable
Gas Lift Compressor Suction Manifold	Not applicable	6"
Test Separator	3-Phase	2-Phase
Booster Compressor Package	Yes	Not applicable
Gas Lift System	Not applicable	Yes
Sea Water Injection Mobile System (SWIMS)	Not applicable	Yes <sup>(1)</sup>
Production Export Riser	10", 12" or 16"	10", 12" or 16"

<b>Key Feature</b>	<b>Generic Gas Wellhead Platform</b>	<b>Generic Oil Wellhead Platform</b>
Production Launcher and Facilities	10", 12" or 16"	10", 12" or 16"
Production Import Riser	Yes	Yes
Production Receivers and Receiving Facilities	Yes	Yes
Gas Lift Import/Export Riser <sup>(2)</sup>	Not applicable	Yes
Gas Lift Receiver/Launcher and its Facilities <sup>(2)</sup>	Not applicable	Yes
Produced Water Import/Export Riser <sup>(2)</sup>	Not applicable	Yes
Produced Water Receiver/Launcher and its Facilities <sup>(2)</sup>	Not applicable	Yes
Utility/Instrument Gas System	Yes	Yes
Chemical Injection System	Yes	Yes
Chemical Storage Tank	One (1) storage tank and provisional space for one (1) storage tank	Four (4) storage tanks
Pedestal Crane	Yes	Yes
Closed Drain System	Yes	Yes
HP/LP Vent System	Yes	Yes
Power System	100% Solar Power	Gas Engine Generator and Diesel Engine Generator (Back-up)
Batteries Back-up Autonomous Time	5days	5days

Key Feature	Generic Gas Wellhead Platform	Generic Oil Wellhead Platform
Control System	PLC based SCADA	PLC based SCADA
Process Control and Safety Instrument System	Yes	Yes
Fire and Gas System	Fusible plug loop and Gas detectors	Fusible plug loop and Gas detectors
ESD Station	Yes	Yes
E&I Room	Yes	Yes
Safety Equipment	Yes	Yes
Diesel Generator	Provisional Space and Port connection	Yes
Toilet (Amenities Cubicle)	Yes	Yes
Boat Landing	Yes	Yes

Note:

- (1) Oil Wellhead Platform shall design to accommodate SWIMS unit only. Supply of SWIMS unit is not include in EPC or T&I CONTRACTOR scope of WORK.
- (2) Features applicable for Oil Wellhead Platform B

### 3.5 Generic Wellhead Platform (Base scope) and Optional Items

The Generic Wellhead Platform is designed to accommodate several Optional Items which may be instructed by COMPANY in the relevant NOTICE TO PROCEED for each PHASE, or otherwise. CONTRACTOR shall refer to section 3.4 for the generic items of GWHP together with below table for clearly identify the Base Scopes and Optional Scopes as the basis for CONTRACTOR prepare pricing proposal in accordance with Exhibit B.

#### Gas Wellhead Platform (GWHP)

Item	Base Scopes (Refer to EXHIBIT B Annex 1)	Optional Scopes (Refer to EXHIBIT B Annex 2)
Jacket Primary Steel base weight (MT.)	475	Adjustment of Jacket weight to suit Water Depth at particular location.
Pile Weight (MT.)	700	Adjustment of Pile as per condition at particular location

<b>Item</b>	<b>Base Scopes</b> (Refer to EXHIBIT B Annex 1)	<b>Optional Scopes</b> (Refer to EXHIBIT B Annex 2)
Pile Sections	5 Pile Sections	Adjustment of Pile Length as per condition at particular location  Note: COMPANY shall accept the additional pile section resulted from the increasing of total pile length from geotechnical information only. The other reasons to increase the section of pile, such as limitation of equipment including unsuitable hammer and etc.), shall be CONTRACTOR's responsibility.
Mudmat	Type: Separated Steel Mudmat Size: 7.7m x 7.7m x 4nos	Adjustment of Mudmat as per condition at particular location  <u>Optional</u> FRP Mudmat
Number of Anode for Jacket	101 nos total Anode for Jacket	Adjustment of Quantity of Anode for Jacket as per condition at particular location
Boatlanding	Boatlanding Type A (Conventional with 2 layers)	Deletion of Boatlanding Type A  Change to Boatlanding Type B (Optimize design with 1 leg 1 layer)
Wellhead Design Pressure Rating	NP well: 344barg (5,000psig)	IP well: 448barg (6,500psig) HP well: 690barg (10,000psig)  Adjustment for IP/HP wells, including, but not limited to, as follows: <u>Wellhead Control Panel</u> - Addition of HPU for IP/HP well - Adjustment of WHCP components for NP/IP/HP well

Item	Base Scopes (Refer to EXHIBIT B Annex 1)	Optional Scopes (Refer to EXHIBIT B Annex 2)
		<u>Manifolds</u> - Adjustment of Piping, Valves and Instrumentations for IP/HP well  <u>Flowlines</u> - Adjustment of flowline (including Choke Valve, Piping and Instrumentation) and Production Tubing for IP/HP well
Platform Design Pressure (Barg.)	Test Separator = 81 Export System = 91 (note 3)	Test Separator = 91 Export System = 91 (note 4)
Telecom Link with CPP	WiMax	4G LTE
RACON & AIS system	Excluded	One (1) system of RACON & AIS
Production Export Riser and facilities (note 1, 2)	16" SMLS Production Export Riser and facilities	10" and 12" SMLS Production Export Riser and facilities
Platform Isolation at Export Line	<u>16" ESDV and its component at export line</u>	<u>Double check valves at upstream of Pig Launcher</u> Deletion of 16" ESDV and its component at export line  Additional one (1) Check Valve (VCS-F16) at upstream of pig launcher
Export Pipeline	16" ERW Pipeline	8"-10" ERW Pipeline 12" ERW Pipeline
WYE	Excluded	Addition of WYE as per Exhibit B Annex 2
PLEM	Excluded	Addition of PLEM as per Exhibit B Annex 2
Production Import Riser (note 1)	16" SMLS Production Import Riser	Deletion of 16" SMLS Production Import Riser



Item	Base Scopes (Refer to EXHIBIT B Annex 1)	Optional Scopes (Refer to EXHIBIT B Annex 2)
		8"-10" SMLS Production Import Riser 12" SMLS Production Import Riser
Production Receiving facilities (note 2)	16" Production Receiving facilities	Deletion of 16" Production Receiving facilities 8"-10" Production Receiving facilities 12" Production Receiving facilities
Booster Compressor package	One (1) Booster Compressor package and associated piping and instrumentation	Deletion of the base scope of one (1) Booster Compressor package and associated piping and instrumentation
ACBV of Booster Compressor	24 Well Slots	Deletion ACSV per well and install blind flange instead
Chemical Storage Tanks	One (1) Chemical Storage Tank and provisional space for one (1) tote storage tank	Additional of one (1) Chemical Storage Tank
Acoustic Gas Detectors	Two (2) Acoustic Gas Detectors at wellbay and production manifold area	Deletion of the base scope of two (2) Acoustic Gas Detectors
Not to Exceed (NTE) of Topside	850 MT	N/A
Not to Exceed (NTE) of Jacket	850 MT	N/A

Note:

- (1) Riser is from hanger clamp to riser bottom flange, including, but not limited to, the following: coated riser pipes & bends, clamps and subsea blind flanges. Riser length shall be in line with the base case of 80m jacket water depth.
- (2) Export / Receiving facilities is from pig launcher / receiver to top of riser (hanger clamp), including, but not limited to, the following: pig launcher / receiver, line pipes & bends, ball valve, barred tee, ESDV (if required), pipe supports and offshore hook-up works
- (3) PSV set point and PAHH to be adjusted to match with pipeline design pressure and design temperature.
- (4) PAH and PAHH set point will be revised according to design pressure change. Calculation, datasheets and any related documents and drawings to be revised based on new set point of PAHH.

**Oil Wellhead Platform (OWHP)**

Base scope of Oil Wellhead Platform shall be Topside A, the optional scopes shall specify the items that COMPANY may instruct to add or delete the facilities in order to accommodate the requirement for Oil Wellhead Platform A or B.

Item	Base Scopes (Refer to EXHIBIT B Annex 1)	Optional Scopes (Refer to EXHIBIT B)
Jacket Depth	475	Adjustment of Jacket weight to suit Water Depth at particular location.
Pile Length	700	Adjustment of Pile as per condition at particular location
Pile Sections	5 Pile Sections	Adjustment of Pile Length as per condition at particular location  Note: COMPANY shall accept the additional pile section resulted from the increasing of total pile length from geotechnical information only. The other reasons to increase the section of pile, such as limitation of equipment including unsuitable hammer and etc.), shall be CONTRACTOR's responsibility.
Mudmat	Type: Separated Steel Mudmat Size: 7.7m x 7.7m x 4nos	Adjustment of Mudmat as per condition at particular location  <u>Optional</u> FRP Mudmat
Number of Anode for Jacket	101 nos total Anode for Jacket	Adjustment of Quantity of Anode for Jacket as per condition at particular location
Boatlanding	Boatlanding Type A (Conventional with 2 layers)	Deletion of Boatlanding Type A  Change to Boatlanding Type B (Optimize design with 1 leg 1 layer)
Wellhead Design Pressure Rating	NP well: 344barg (5,000psig)	
Telecom Link with CPP	4G LTE	WiMax

<b>Item</b>	<b>Base Scopes</b> (Refer to EXHIBIT B Annex 1)	<b>Optional Scopes</b> (Refer to EXHIBIT B)
RACON & AIS system	Excluded	One (1) system of RACON & AIS
Production Export Riser and facilities (note 1, 2)	16" SMLS Production Export Riser and facilities	10" and 12" SMLS Production Export Riser and facilities
Platform Isolation at Export Line	Double check valves at upstream of Pig Launcher	Deletion of Double check valves at upstream of Pig Launcher  Additional 16" ESDV and its component at export line and 4" ESDV and its component at export line
Export Pipeline	16" ERW Pipeline	8"-10" ERW Pipeline 12" ERW Pipeline
WYE	Excluded	Addition of WYE as per Exhibit B Annex 2
PLEM	Excluded	Addition of PLEM as per Exhibit B Annex 2
Production Import Riser (note 1)	16" SMLS Production Import Riser	Deletion of 16" SMLS Production Import Riser 8"-10" SMLS Production Import Riser 12" SMLS Production Import Riser
Production Receiving facilities (note 2)	16" Production Receiving facilities	Deletion of 16" Production Receiving facilities 8"-10" Production Receiving facilities 12" Production Receiving facilities
Generic Oil Wellhead Topsides (note 3)	Lump sum price for Generic Oil Wellhead Topsides A	Lump sum price Generic Oil Wellhead Topsides B
Gas Lift Compressor package	One (1) Gas Lift Compressor package and associated piping and instrumentation	Deletion of the one (1) Gas Lift Compressor package and associated piping and instrumentation
ACBV of Gas Lift Compressor	24 Well Slots	Deletion ACSV per well

Item	Base Scopes (Refer to EXHIBIT B Annex 1)	Optional Scopes (Refer to EXHIBIT B)
Tote Tanks	Two (2) Chemical Storage Tanks One (1) Demulsifier Storage Tank One (1) PPD Storage Tank	
Gas Lift KO Drum	One (1) Gas Lift KO Drum and associated piping and instrumentation	Deletion of the one (1) Gas Lift KO Drum and associated piping and instrumentation for Topside A  Add One (1) Gas Lift KO Drum for Topside B and associated piping and instrumentation
Gas Lift Import/Export Riser and facilities (note 1, 2)	Excluded	8" SMLS Gas Lift Import/Export Riser and facilities
Gas Lift Import/Export Pipeline	Excluded	8" ERW Pipeline
Water Injection Import/Export Riser and facilities (note 1, 2)	Excluded	10" SMLS Water Injection Import/Export Riser and facilities
Water Injection Import/Export Pipeline	Excluded	10" ERW Pipeline
Not to Exceed (NTE) of Topside	850 MT	N/A
Not to Exceed (NTE) of Jacket	850 MT	N/A

Note:

1. Riser is from hanger clamp to riser bottom flange, including, but not limited to, the following: coated riser pipes & bends, clamps and subsea blind flanges. Riser length shall be in line with the base case of 80m jacket water depth
2. Export / Receiving facilities is from pig launcher / receiver to top of riser (hanger clamp), including, but not limited to, the following: pig launcher / receiver, line pipes & bends, ball valve, barred tee, ESDV (if required), pipe supports and offshore hook-up works
3. There are two (2) designs of Topsides for Generic Oil Wellhead Platform. The base scope, namely Generic Oil Wellhead Topsides A and the optional scope, namely Generic Oil Wellhead Topsides B is referred to EXHIBIT E, Annex 2.
4. Procurement cost plus items shall refer to Exhibit A, Annex 12

5. The adjustment shall be based on the same basis from base q'ty or base reference.

## **4.0 COMPANY Responsibilities**

### **4.1 Generally**

The COMPANY shall only provide such services, facilities and other things that are stated in writing in the CONTRACT to be provided by the COMPANY.

The T&I CONTRACTOR shall provide and do all other things of whatsoever nature that are required and or necessary for the WORK and the successful completion of the PLANT in accordance with the CONTRACT and APPLICABLE LAWS, irrespective of if such things are expressly stated in the CONTRACT or not.

### **4.2 COMPANY ITEMS**

#### **4.2.1 Responsibilities of the COMPANY**

The COMPANY shall provide the COMPANY ITEMS listed in Exhibit I.

The COMPANY shall pay the SUPPLIER the actual purchase cost of COMPANY ITEMS and for delivery as per conditions shall be as stated in Exhibit I.

It is intended that the COMPANY ITEMS will be completed and in a state of readiness (as per the details provided in Exhibit I) for receipt and use by the T&I CONTRACTOR.

#### **4.2.2 Responsibilities of the T&I CONTRACTOR**

The T&I CONTRACTOR's responsibilities for COMPANY ITEMS include but are not limited to:

- a) All related, interfacing, detailed engineering, procurement and logistics services.
- b) Any necessary customs clearances at the port of entry into the country of the WORKSITE and if applicable at the WORKSITES.
- c) Unloading and inspection of COMPANY ITEMS
- d) Recording and receipt of COMPANY ITEMS and notifying the COMPANY of any overages and shortages of quantities, damages and apparent defects on receipt.
- e) Transportation of COMPANY ITEMS including but not limited to marshalling area activities and all transport from port of entry to the WORKSITE and all freight forwarding fees, insurance etc. associated with such transport.
- f) Custody and protection of COMPANY ITEMS including but not limited to warehousing, storage, security, preservation, protection and preventative maintenance in accordance with SUPPLIERS recommendations and as may be necessary.
- g) Use and incorporation of COMPANY ITEMS including, but not limited to, handling, fabrication, lifting, erection, installation, tie-in, testing, pre-commissioning, etc.
- h) Reconciliation of COMPANY ITEMS as per requirements of sub-article 14.3.7 of the AGREEMENT.
- i) Storage and disposal of surplus and scrap COMPANY ITEMS
- j) Any other thing required and or necessary except as may the responsibility of the COMPANY, unless listed otherwise in Exhibit I.

All as further referred to and described in sub-article 14.3 of the AGREEMENT (COMPANY ITEMS), Exhibit G Annex-10 (Procedure for Surplus and Scrap COMPANY ITEMS), Exhibit I (COMPANY ITEMS) and the other terms and requirements of the CONTRACT.

#### **4.2.3 SUPPLIERS Technical Representatives, Supervision and Support.**

The arrangements for provision of SUPPLIER Technical Representatives (if any) and supervision by SUPPLIERS (if any) during Onshore Construction, pre-commissioning and commissioning shall be as stated Exhibit I. Likewise technical assistance (if any) for start up as per sub-article 14.11 of the AGREEMENT.

#### **4.3 COMPANY PROVIDED INFORMATION**

The COMPANY has commissioned GTI and GSI investigations and reports. These are included as COMPANY PROVIDED INFORMATION in Exhibit E Annex-5.

#### **4.4 Services and Facilities to be Provided by the COMPANY**

The COMPANY shall only be obliged provide services and facilities for EPC or T&I CONTRACTOR PERSONNEL and/or CONTRACTOR CONSTRUCTION EQUIPMENTS (offshore transportation and accommodation) for pre-engineering and post engineering surveys, as stated in Exhibit A Section 9.10.2.

COMPANY may provide services and facilities for EPC or T&I CONTRACTOR (offshore transportation and accommodation) for the other activities subject to availability of its facilities. Any cost and expense incurred from COMPANY provided such services shall be compensated by EPC or T&I CONTRACTOR.

## **5.0 General Requirements**

### **5.1 Fitness for Purpose**

The T&I CONTRACTOR shall perform all WORK and anything else of whatsoever nature so that the PLANT when completed shall be in accordance with the requirements of the CONTRACT, be of the required quality, free from defects, accessible, operable, reliable, and fit for the purpose for which it is intended as per the CONTRACT requirements and shall comply with APPLICABLE LAWS.

### **5.2 DESIGN DOSSIER**

#### **5.2.1 General Requirements**

The term DESIGN DOSSIER is a defined term as per sub-article 2.1 of the AGREEMENT, it describes minimum basic principles and requirements for the WORK and the PLANT.

The DESIGN DOSSIER (except for RELY UPON INFORMATION listed in Exhibit E Annex-8) is provided without any warranty from the COMPANY, shall be subjected to verification as per Exhibit A Section 9.4 (Verification and Updating of Data and Information). The T&I CONTRACTOR has endorsed the DESIGN DOSSIER, sub-article 13.4 of the AGREEMENT and Annex-5 (Design Endorsement Certificate) of the AGREEMENT refer.

The T&I CONTRACTOR shall utilize the DESIGN DOSSIER, updated as per Exhibit A Section 9.4 (Verification and Updating of Data and Information) as a starting point for the WORK, subject to the other terms and requirements of the CONTRACT.

### **5.3 Standardization**

Selection of EPC or T&I CONTRACTOR ITEMS and COMPANY ITEMS shall be standardized :

- a) so as to avoid of risk of incidents due to mixed systems and non-interchangeable components,
- b) to allow optimization of stock inventory and maintenance
- c) and allow interchangeability of equipment, components and materials special tools and spare parts between the PLANT and
- d) to be standardize the existing facilities.

For clarity, standardize also means making things of the same type the same basic features. Standardization shall be applied for WORK, such as engineering, construction, procurement, installation, commission and relevant part as specified including vendor packages (make/model selection, refer to Exhibit J), design layout, material handling study, PLANT operation & maintenance, spare part management, etc.

### **5.4 EPC and T&I CONTRACTOR DOCUMENTS**

#### **5.4.1 General Requirements**

All T&I CONTRACTOR DOCUMENTS shall be prepared, submitted and updated in full compliance with the requirements of:

- a) This Exhibit A and Exhibit A Annex-1
- b) 10008-STD-6-GEN-002-R01 Coding Protocol for Project Document and Drawing
- c) 10008-STD-6-GEN-004-R00 Minimum Requirements for Contractor's Documentation
- d) 10008-STD-6-GEN-008-R00 Coding Protocol for Facility Equipment Numbering



- e) 10008-STD-6-DWG-001-R00 AutoCAD Standard and Procedures
- f) PEGS-0710-DWG-002-R00 Standard Symbols and Legend for P&ID
- g) Exhibit G Co-ordination Procedure Requirements
- h) the other applicable terms and requirements of the CONTRACT

Unless otherwise agreed by the PARTIES, all EPC and T&I CONTRACTOR DOCUMENTS shall be submitted via PROJECT EDMS. Technical EPC and T&I CONTRACTOR DOCUMENTS shall be prepared and submitted in accordance with the Exhibit A Annex-1 APPROVAL Process.

#### 5.4.2 English Language

All T&I CONTRACTOR DOCUMENTS shall be in the English language unless a particular drawing or document needs to be in Thai or another language in which case the T&I CONTRACTOR shall provide a translation from an APPROVED certified translator.

#### 5.4.3 Ownership and Use of T&I CONTRACTOR DOCUMENTS

Subject to AGREEMENT sub-article 46.2 (title on T&I CONTRACTOR DOCUMENTS) and AGREEMENT article 45 (INTELLECTUAL PROPERTY RIGHTS and Patent Infringement) all T&I CONTRACTOR DOCUMENTS except those are specific to T&I CONTRACTOR's normal operations and have not been specially developed in connection with the WORK, shall, as of commencement of the WORK thereon, including native files, become COMPANY's property and shall be delivered to the COMPANY immediately.

#### 5.5 **Master Documents and Deliverables Register**

The T&I CONTRACTOR shall prepare and submit a fully developed MDDR no later than thirty (30) days after the EFFECTIVE DATE for APPROVAL.

The MDDR shall comprise a comprehensive list of proposed and actual Technical Documents together with document number, document title, planned and actual submission dates, return dates, APPROVAL status / code, and sub-divided by Work Category and Work Package. The minimum EPC and T&I CONTRACTOR document shall refer to Exhibit A, Annex1. The MDDR shall also identify early FINAL DOCUMENTATION required for issuance of HANDOVER CERTIFICATES and any other necessary information.

Any changes to the MDDR shall be subject to COMPANY APPROVAL.

#### 5.6 **Close Out of Basic Engineering Open Action or Transfer to Next Phase Items**

The EPC and T&I CONTRACTOR shall perform all WORK as required to close out the Basic Engineering Open Action or Transfer to Next Phase Items from DESIGN DOSSIER, including but not limited to those listed in Exhibit E Annex-3 and Annex-4, for example; HAZID close out report, HAZOP close out report, SIL close out report, PTR#2 close out report for OWHP, PTR#3 close out report for GWHP, Hold Register, and etc. Close out shall be subject to the Exhibit A Annex-1 submission and APPROVAL process.

The EPC and T&I CONTRACTOR shall track progress of the close out Action Items in Technical Actions Database and submit Actions Close out Report for APPROVAL. Each closed out item shall be supported by signed worksheets supplemented with evidence of what action has been taken and COMPANY APPROVAL.

## **5.7 PROJECT Kick Off Meetings, Technical and Progress Reviews**

### **5.7.1 Kick-off Meetings**

An overall PROJECT Kick-Off Meeting to be held in COMPANY office in Bangkok or other locations as maybe agreed no later than fourteen (14) days after the EFFECTIVE DATE. Attendees shall be COMPANY, EPC CONTRACTOR Representatives, T&I CONTRACTOR Representatives and related PERSONNEL.

Separate Kick-off meetings shall be convened for each of the following disciplines:

- a) Project management and project controls
- b) Quality management
- c) SSHE management
- d) Engineering and design
- e) Procurement and supply activities
- f) Each item of packaged equipment and tagged items
- g) Onshore construction, fabrication, pre-commissioning, commissioning
- h) Load-out operation
- i) Interface management
- j) Brownfield modification
- k) MARINE SPREAD
- l) Load-out and Offshore Transportation
- m) Offshore installation (wellhead platform)
- n) Offshore installation (pipelines and tie-ins)
- o) Brownfield modifications and tie-ins

The purpose of each Kick-off meeting is for the EPC CONTRACTOR and/or T&I CONTRACTOR to present and explain at an early stage and before commencement of the applicable WORK, his understanding of the WORK, the proposed approach, compliance with technical, contractual and other requirements, applicable procedures, resources, preparedness and readiness.

The EPC and T&I CONTRACTOR shall submit a copy of each kick-off meeting presentation to the COMPANY for information no later than five (5) working days before the date of the applicable kick-off meeting.

The EPC and T&I CONTRACTOR shall prepare and submit minutes of kick off meetings to the COMPANY for review, comment and approval, no later than 48 hours after each meeting.

### **5.7.2 PROJECT Technical Review 3 (PTR3)**

PTR3 shall be done by COMPANY's PTR 3 Team as per Project Technical Review Guideline SSHE-106-GDL-703 towards the end of the detailed engineering design.

The EPC and T&I CONTRACTOR's duties obligations and responsibilities in relation with PTR 3 are to:

- a) Provide the PTR 3 deliverables listed Project Technical Review Guideline SSHE-106-GDL-703 for review by the COMPANY (number of copies and type to be advised).
- b) Attend the opening and closing sessions of the PTR 3 review meeting.
- c) Respond promptly to questions raised by PTR team and Provide technical clarification / explanation, if and to the extent required.
- d) Implement PTR 3 EPC and T&I CONTRACTOR Action Items promptly including all related required and necessary WORK. The CHANGE ORDER process shall be

followed for PTR 3 Action Items that are not part of the required or necessary WORK as per CONTRACT requirements i.e. preferential.

- e) Track progress of the close out of EPC and T&I CONTRACTOR PTR 3 Action Items in Technical Actions Database and submit PTR 3 Actions Close out Report for APPROVAL. Each action item closed out shall be supported by signed worksheets supplemented with evidences of what action has been taken and COMPANY APPROVAL.

#### 5.7.3 PROJECT Technical Review 4 (PTR4)

The COMPANY may conduct PTR 4 in accordance with the requirements of Project Technical Review Guideline SSHE-106-GDL-703 at the start of the pre-commissioning / commissioning stage.

This notwithstanding the EPC and T&I CONTRACTOR shall as part of the WORK support the PTR 4 process, provide PTR 4 deliverables that are EPC and T&I CONTRACTOR DOCUMENTS (number of copies and type to be advised) and shall make available EPC and T&I CONTRACTOR PERSONNEL to respond promptly via telephone link to questions raised by PTR team.

#### 5.7.4 Other Technical, Readiness, Progress Reviews / Audits

From time to time during the period of the performance of the WORK, the COMPANY may request and the EPC and T&I CONTRACTOR shall arrange and attend any other technical and or progress reviews. Those are required to verify the progress and or compliance with technical and other requirements of the CONTRACT.

The EPC and T&I CONTRACTOR shall allow full and unrestricted access for COMPANY PERSONNEL for such reviews and shall make all requested information, EPC and T&I CONTRACTOR DOCUMENTS and EPC and T&I CONTRACTOR PERSONNEL available.

The EPC and T&I CONTRACTOR shall also nominate a person to act as an audit coordinator in each audit, who shall be responsible for administering, agreeing and following-up corrective actions in a timely manner until close out completion of all items in a timely manner.

#### 5.7.5 Tracking and Close Out of Technical, Readiness and Progress Review Actions

The EPC and T&I CONTRACTOR shall track the status of EPC and T&I CONTRACTOR, VENDOR, SUPPLIER and EPC and T&I CONTRACTOR action items by means of a Technical Actions Tracking Register which shall include PTR, technical and other action items as well as target close out dates and status.

The format and content of the Technical Action Tracking Register shall be proposed by the EPC and T&I CONTRACTOR for APPROVAL. The EPC and T&I CONTRACTOR shall update the Technical Action Tracking Register during the performance of the WORK and shall submit the updated register every two weeks to the COMPANY for information.

### 5.8 **Care and Custody of EPC CONTRACTOR ITEMS, T&I CONTRACTOR ITEMS and Results of the WORK**

The EPC and T&I CONTRACTOR shall inventory, maintain and protect all EPC CONTRACTOR ITEMS, T&I CONTRACTOR ITEMS and from the time of receipt until acceptance of the completed WORK, onshore and/or offshore as applicable. The EPC and

T&I CONTRACTOR shall be responsible for any losses, deterioration or damage that may occur until the COMPANY has accepted the PLANT.

Transportation, handling, preservation, storage and installation of EPC and T&I CONTRACTOR ITEMS and COMPANY ITEMS shall be done in conformance with VENDORS recommendations and requirements. In particular, fragile and/or sensitive equipment such as instruments and etc., shall be stored in totally enclosed and air-conditioned rooms.

## **5.9 WORK Descriptions**

Notwithstanding any omission from and/or defective description of the WORK, work activities and operations and/or of the PLANT in the CONTRACT DOCUMENTS, all operations, activities and everything required and necessary for the timely and correct performance of the WORK and the correct and timely completion of the PLANT in accordance with the CONTRACT shall be deemed to be included within the Initial CONTRACT PRICE.

## **5.10 Deviations, Alternatives and Substitutions.**

The EPC and T&I CONTRACTOR shall not deviate from, not substitute and shall not provide an alternative to any of the CONTRACT requirements and or obligations of the EPC and T&I CONTRACTOR unless such proposed deviation or substitution, or alternative has been formally requested by the EPC and T&I CONTRACTOR and approved in writing by the COMPANY as per Technical Query (TQ) process Exhibit G Annex-9 (Control of Deviations and Non-Conformances) and Exhibit H Section 1.7 (Control of Deviations, Non-Conformances and Corrective Actions).

## **5.11 Access for COMPANY PERSONNEL**

In addition to the specific requirements in Exhibit H, the EPC and T&I CONTRACTOR shall provide safe secure access for COMPANY PERSONNEL at all places, activities and documents and drawings concerned with the onshore fabrication WORK including but not limited to routine surveillance, inspections, tests, quality audits, pre-commissioning, commissioning, acceptance tests including FAT, SAT, reviews, audits, etc.

The EPC and T&I CONTRACTOR shall thoroughly clean the WORK to be inspected of all excess and waste materials, such as abrasive, slag, welding electrodes and the like, and shall advance notify COMPANY with sufficient time prior to inspection according to Section 1.8.8 of Exhibit H.

## **5.12 Planning, Scheduling and CONSTRAINTS**

The WORK, the WORK TIME SCHEDULE and the APPROVED Detailed Work Time Schedules shall and are deemed to include for all of the EPC and T&I CONTRACTOR's obligations, risks and CONSTRAINTS, contingencies, and anything else necessary for the timely and correct performance of the WORK and the timely and correct completion of the PLANT in accordance with the requirements of AGREEMENT article 15 (WORK TIME SCHEDULE and Progress Control), this Exhibit A, Exhibit C, Exhibit G Annex-5 and the other terms of the CONTRACT.

## 6.0 PROJECT Management

### 6.1 General Requirements

The T&I CONTRACTOR shall effectively plan, schedule, monitor, control, co-ordinate and manage the performance and implementation of the WORK and all interfaces and CONSTRAINTS for the duration of the CONTRACT in accordance with the requirements of the CONTRACT and APPLICABLE LAWS.

The T&I CONTRACTOR shall ensure that his management strategy implemented for the PROJECT includes for all risks and the principles of continuous improvement and learning from within the T&I CONTRACTOR's own organization and industry best practices.

#### 6.1.1 T&I CONTRACTOR REPRESENTATIVE

- a) The T&I CONTRACTOR shall appoint and maintain a T&I CONTRACTOR REPRESENTATIVE as the main focal point with the COMPANY for all matters in connection with and arising from the CONTRACT, WORK and PLANT. Articles 9 (T&I CONTRACTOR REPRESENTATIVE) and sub-article 55.2 (address of T&I CONTRACTOR REPRESENTATIVE) refer.
- b) The T&I CONTRACTOR shall appoint a Deputy Contractor Representative at each WORKSITE and for each Major SUBCONTRACTOR.
- c) The T&I CONTRACTOR shall appoint a Deputy Contractor Representative at EPC CONTRACTOR WORKSITE for the activities require T&I CONTRACTOR responsible in accordance with the interface matrix specified in Exhibit A, Annex 10.

#### 6.1.2 Overall Project Execution Plan

The T&I CONTRACTOR shall prepare and submit a fully developed PROJECT Execution Plan no later than thirty (30) days after the EFFECTIVE DATE for APPROVAL.

The PROJECT Execution Plan shall, describe and provide details of the WORK to be performed, the PROJECT objectives, key success factors, the T&I CONTRACTOR's Organization, the proposed execution strategy (high level) for all phases of the WORK including subcontractors, Interfacing Matrix, activities / tasks, project certification plan, applicable principles and requirements and a list of other procedures and plans the T&I CONTRACTOR will produce for the WORK.

#### 6.1.3 WORK Locations

The T&I CONTRACTOR shall, as a minimum, provide and maintain the WORK Locations that are described in Exhibit K.

The T&I CONTRACTOR shall prepare and submit, as part of Project Execution Plan, comprehensive and fully developed details and plans for each of the locations listed below and to be utilized for the performance of the WORK.

- a) Project Management Office (Main Project Office)
- b) Engineering Office
- c) Procurement Services & Supply Office
- d) Onshore Construction Yards (Fabrication Yards)
- e) Linepipe Coating Yard
- f) Offshore Installation Management Office
- g) Transportation and Installation engineering Office
- h) Offshore Support Base

The details and plans for each location shall describe and explain the WORK to be performed at each location, the planned duration, layouts, and proposed arrangements including, but not limited to, the facilities for PERSONNEL the CONSTRUCTION EQUIPMENT, T&I CONTRACTOR ITEMS, COMPANY ITEMS and the performance of the WORK at the locations.

6.1.4 Organization and Resources at WORK Locations

The T&I CONTRACTOR shall as a minimum and subject to the other terms and provisions of the CONTRACT provide at each WORK Location; the Management Organizations as per Exhibit K and all required and necessary qualified and experienced; T&I CONTRACTOR PERSONNEL, SUBCONTRACTOR PERSONNEL, VENDOR and SUPPLIER Representatives, CONSTRUCTION EQUIPMENT and all other things whatsoever.

6.1.5 Offshore Installation Phase

During offshore installation phase, the T&I CONTRACTOR shall establish effective communication and data links between his Onshore Base, Project Management Offices, Engineering office(s), WORKSITES and KEY VESSELS which shall be available twenty-four (24) hours per day throughout the duration of the WORK.

6.1.6 Security at WORKSITE Locations

The security for above locations shall be the sole responsibility of T&I CONTRACTOR. The T&I CONTRACTOR shall provide 24 hours security coverage (week-ends and Public Holidays included) to cover all locations, where the WORK is performed and/or documentation and/or electronic data and/or other items in any way connected with the WORK are kept. Security coverage shall be carried out day and night by a dedicated team of at least two or more experienced security officers per locations.

6.1.7 Meetings

Coordination meetings shall be arranged during PROJECT execution to allow PARTIES to discuss, technical/ progress and to review, address all PROJECT matters, update PROJECT status, etc. Details of the meeting is referred to Exhibit G Annex-1 (Communication).

6.1.7.1 Weekly/ Monthly Project Management Meeting

The T&I CONTRACTOR shall arrange and conduct a Weekly/Monthly Project Management Meeting to be attended by COMPANY and T&I CONTRACTOR REPRESENTATIVES, Project Manager, Project Controls Leads, Project Safety Managers and other concerned PERSONNEL. The purpose of the meeting is monitor and review progress of project management, project controls and safety management activities e.g. engineering, procurement, fabrication, QA/QC, SSHE and etc., to identify and discuss areas of concern and align on remedial actions required.

6.1.7.2 Weekly Engineering and Procurement Meetings

The T&I CONTRACTOR shall arrange and conduct weekly engineering and weekly procurement meetings attended by T&I CONTRACTOR and COMPANY PERSONNEL. The purpose of such meetings is to monitor and review progress of Engineering and Procurement activities and to identify and discuss technical and other concerns and delays for VENDOR and subcontracted WORK.

The T&I CONTRACTOR shall propose remedial and mitigation actions and solutions for technical, other concerns and delays to the COMPANY for consideration and APPROVAL. In addition, if the technical and other concerns and delays are not resolved expeditiously and in a timely manner and/or not be effective, the T&I CONTRACTOR shall arrange review and clarification meetings with VENDORS and or SUBCONTRACTORS, as the case may be, for such technical and other concerns and delays and shall invite the COMPANY to participate. All costs and expenses for attendance at such meetings shall be borne by the T&I CONTRACTOR.

The T&I CONTRACTOR shall provide the COMPANY with copies of related correspondence and a copy of the related minutes of meetings.

#### 6.1.7.3 Other Meetings

In addition to regular project meeting, meetings may be held at T&I CONTRACTOR'S or COMPANY'S request on specific matters i.e. QA/QC meeting, Interface meeting with VENDOR/SUPPLIER, or ad-hoc meeting as and when required.

### 6.2 **PROJECT Controls**

The T&I CONTRACTOR shall effectively implement in a timely manner detailed project control activity applicable to all phases of the WORK, covering all aspects of planning, scheduling, progress monitoring and progress reporting for:

- a) Project Management & Services
- b) Engineering
- c) Procurement Services and Supply
- d) Onshore Construction
- e) Pre-commissioning/ Commissioning
- f) Transportation and Installation
- g) Mobilization/ Demobilization of MARINE SPREAD
- h) All other aspect of the WORKS
- i) administration and PROJECT reports including but not limited to:
- j) correspondence
- k) minutes of meetings,
- l) daily progress updates,
- m) daily reports (during offshore transportation and installation),
- n) weekly progress reports,
- o) monthly progress reports,
- p) other periodic and ad hoc reports
- q) MDDR and reporting progress and status of T&I CONTRACTOR DOCUMENTS
- r) management of change (MOC)
- s) technical queries/ deviation
- t) logistics, transportation and accommodation arrangements
- u) services and facilities for COMPANY PERSONNEL
- v) cost control and cost reporting
- w) accrual payment and look ahead progress
- x) invoicing and payments
- y) CHANGE ORDERS related issues
- z) ad hoc reports and all other required and necessary PROJECT Control activities
- aa) Interface management with EPC CONTRACTOR

All the above activities shall be comprehensibly explained and described in the PROJECT Execution Plan and or applicable plans and procedures.

### **6.3 PROJECT Risk Management**

The T&I CONTRACTOR shall develop to cover all aspects including interface management risk between EPC and T&I CONTRACTOR and implement a PROJECT Risk Management System generally in accordance with COMPANY Specification.

The purpose of the PROJECT Risk Management System is to identify issues, threats and risks, assess impact, criticality and severity and also appropriate / necessary corrective actions and mitigations for all phases of the WORK including SSHE.

The T&I CONTRACTOR shall develop, maintain and update a PROJECT Risk Register and a PROJECT Risk Register Database on a monthly basis and submit for COMPANY Review.

The T&I CONTRACTOR shall institute corrective action and monitor and report effectiveness for corrective actions and slippages against Detailed Work Time Schedule activities.

A fully developed PROJECT Risk Management Procedure shall be submitted for APPROVAL no later than thirty (30) days after the EFFECTIVE DATE.

The T&I CONTRACTOR shall provide adequate resources and training to ensure that PROJECT Risk Management and reporting is effectively implemented. Risk control shall be an agenda point in PROJECT meetings with the PROJECT Risk Register reviewed and updated on a regular basis by the T&I CONTRACTOR.

### **6.4 Communications**

#### **6.4.1 PROJECT Correspondence and Document Control Procedure**

The T&I CONTRACTOR shall prepare and submit a comprehensive PROJECT Correspondence and Document Control Procedure for Technical Documents and Correspondence no later than fourteen (14) days after the EFFECTIVE DATE for APPROVAL.

The PROJECT Correspondence and Document Control Procedure shall fully and in all respects comply with the requirements of the CONTRACT and it shall set forth an orderly, clear and effective manner the basis for numbering, communication, submission, APPROVAL process, monitoring, controlling and the reporting of communications and T&I CONTRACTOR DOCUMENTS between the PARTIES under the CONTRACT.

The T&I CONTRACTOR may use his own Company procedure, altered, adapted and upgraded as may be required and necessary.

Refer also to AGREEMENT sub-article 14.4 (T&I CONTRACTOR DOCUMENTS, Exhibit A Section 5.4 (T&I CONTRACTOR DOCUMENTS), Exhibit A Section 6.5 (Co-ordination and interface management), Exhibit A Annex-1 (Procedure and Minimum List for T&I CONTRACTOR DOCUMENTS), Exhibit G Annex-1 (Communications) and the other applicable terms and requirements of the CONTRACT.

Correspondence and Technical T&I CONTRACTOR DOCUMENTS shall have the meanings ascribed to them in Exhibit A Annex-1 (Procedure and Minimum List for T&I CONTRACTOR DOCUMENTS).



#### 6.4.2 Electronic Data Management System (EDMS)

Submission of all T&I CONTRACTOR DOCUMENTS, COMPANY responses and correspondence between the PARTIES shall be done using COMPANY's EDMS.

Training courses for T&I CONTRACTOR's document controllers in the use of EDMS will be provided by the COMPANY on a free of charge basis. All other costs and expenses whatever for T&I CONTRACTOR's document controllers to attend the EDMS training (such as, but not limited to, transportation, accommodation, air fares, etc.) shall be borne by the T&I CONTRACTOR.

#### 6.4.3 ICT and Software

The T&I CONTRACTOR shall provide and maintain a complete technical ICT infrastructure for the performance of the WORK and shall ensure this includes adequate bandwidth, redundancy, security and disaster recovery planning so that there is no circumstance under which project delays can occur due to data loss or systems down-time. T&I CONTRACTOR shall also manage the interfacing with COMPANY ICT as and when required for the ICT system set up.

The T&I CONTRACTOR shall ensure and if requested demonstrate that data integrity between current and backup databases are maintained correctly at all times.

The T&I CONTRACTOR shall also provide and utilize the software types listed in Exhibit A Annex-2, these and all other software utilized for the WORK shall be officially licensed, be of the latest version and industry standard. Validation records shall be provided to COMPANY on request.

#### 6.4.4 Emails

All emails shall be considered as a verbal communication and subject to the applicable CONTRACT terms for verbal communications. Unless an email is confirmed in writing by letter within 48 hours of receipt then the subject matter and content of such email will not be binding on either party and will not be considered as formal correspondence under the CONTRACT and may not be used by either party as supporting documentation in future correspondence relating to the subject matter of the e-mail.

### 6.5 **Co-ordination and Interface Management**

The T&I CONTRACTOR shall effectively manage and co-ordinate in a timely manner interfaces arising from and or in connection with the WORK.

The T&I CONTRACTOR shall prepare and submit a comprehensive Interface Management Plan describing how and in what manner the above interfaces (internal, external and with third parties) requirements shall be effectively implemented, managed, monitored and progress and status reported. Detail of PROJECT Interface Management shall be comprehensibly explained and described in the PROJECT Execution Plan.

The T&I CONTRACTOR shall implement all actions required and or necessary so that the WORK shall be performed in a correct and timely manner in accordance with this Exhibit A, Exhibit A-Annex 10, Exhibit C and the terms of the CONTRACT.

In the event that some activities missing from the interface matrix, but such activities are logically determined or specified the responsible party who shall responsible for such

activities. COMPANY shall reasonably and reserve its right to final call for the responsible party to include such activities in his scope of WORK.

#### 6.5.1 Internal Interfaces

Internal interfaces are those under the direct control of the T&I CONTRACTOR, for example;

- a) VENDORS / SUPPLIERS
- b) SUBCONTRACTOR
- c) T&I CONTRACTOR's associates and affiliates

Internal interfaces are those within the T&I CONTRACTOR's own Project Organization. The T&I CONTRACTOR shall, throughout the entire duration of the CONTRACT, effectively and in a timely manner manage and co-ordinate all internal interfaces between and with all work groups and all T&I CONTRACTOR PERSONNEL involved in the performance of the WORK.

#### 6.5.2 External Interfaces

External interfaces are those where it is necessary to exchange information with the any of the following parties for and/or in connection with the performance of the WORK:

- d) EPC CONTRACTOR
- a) Other contractors
- b) COMPANY
- c) MWS

The responsibilities of the interfaces between EPC and T&I CONTRACTOR are defined in the Annex 10 of Exhibit A and Exhibit C as the guideline for further development detailed interface management during execution.

Identifying, specifying and resolving all interface matters, such as the type of information needed by and from parties shall be an integral part of EPC and T&I CONTRACTOR scope of WORK. EPC and T&I CONTRACTOR shall prepare the design, planning, scheduling or other work required for progressing the resolution of such interface matters.

T&I CONTRACTOR shall be responsible for the management and co-ordination of all external interfaces associated with the WORK. These interfaces cover detailed engineering, procurement, onshore construction, load out, pre-commissioning, transportation and installation. Interfaces activities include those areas where T&I CONTRACTOR take as Performer who shall follow up and request the information or material from EPC CONTRACTOR, as Consultant who shall provide the information or supply the material to EPC CONTRACTOR as the timeline specified in Exhibit C or exchange information during execution with EPC CONTRACTOR or other parties for carrying out the WORK. Fail to take actions as the requirement mentioned in Exhibit A, Annex 10 and Exhibit C, the default party shall bear the cost or expense in accordance with the obligation of Sub Article 14.15 of the AGREEMENT.

T&I CONTRACTOR shall ensure timely issue of drawings and documents as requested by EPC CONTRACTOR including COMPANY's other Contractors and be responsible for the review of all engineering work associated with the interface to ensure that the final design is in accordance with his own engineering WORK. T&I CONTRACTOR will be required to attend regular interface meetings and implement a comprehensive interface action tracking and closure procedure.

### 6.5.3 Third Parties

Third parties are those necessary for exchange information with the any of the following parties for and/or with authorization/ APPROVAL for and/or in connection with the performance of the WORK:

- a) GOVERNMENT
- b) Anyone else other than external and internal interfaces listed above.

Generally, T&I CONTRACTOR shall manage the contact with Third Party(s) and GOVERNMENT as and when applicable to complete the WORK. On a case by case basis, COMPANY, which may at its sole option, direct the T&I CONTRACTOR, to have direct contact with the interfacing party on conditions as set down by COMPANY and/or via COMPANY.

### 6.5.4 Interface with EPC CONTRACTOR

The interface scope of WORK between EPC CONTRACTOR and T&I CONTRACTOR is according to Exhibit A Annex-10: Interface and Responsibility Matrix between EPC CONTRACTOR and T&I CONTRACTOR.

## 6.6 **Services and Facilities for COMPANY PERSONNEL**

The T&I CONTRACTOR shall provide services and facilities for COMPANY PERSONNEL to the extent requested by the COMPANY. The nature and type of facilities that may be requested by the COMPANY is attached as Exhibit A Annex-7.

These are sub-divided by type i.e. those services and facilities which are priced on a lump sum basis and those which are subject to Call-Off process.

For the Call-off process, the COMPANY shall instruct the T&I CONTRACTOR as to the actual quantities and types of services and facilities to be provided. The T&I CONTRACTOR shall not provide a service or facility for COMPANY PERSONNEL unless the COMPANY has issued an applicable Call-off order.

The PARTIES shall record and document provision on monthly basis and the end of each services and or facility.

The T&I CONTRACTOR shall be compensated for actual provision and maintenance of Call-off process services in the manner stipulated in Exhibit B.

The Lump Sum Prices for Services to the COMPANY identified as such in Exhibit B Annex-7 shall not subject to price adjustment.

## 6.7 **Project Close Out Report**

The T&I CONTRACTOR shall prepare and submit as part of FINAL DOCUMENTATION a fully developed and comprehensive PROJECT Close out Report. The format of the PROJECT Close out Report shall be proposed for APPROVAL.

The T&I CONTRACTOR shall organize and provide relevant PERSONNEL for lesson learned workshop for project close out.

The PROJECT Close out Report shall include as a minimum all of the information stated in SPECIFICATION 10008-STD-6-GEN-004 (Minimum Requirements for T&I

CONTRACTOR's Documentation) and shall also include cost information including all priced POs of type and format to interface with the COMPANY Estimating Systems.

The T&I CONTRACTOR shall provide the summary priced table of all package items, tagged items, and bulk materials as part of the FINAL DOCUMENTATION. The COMPANY may request and the T&I CONTRACTOR shall provide COMPANY access to and sight of the back-up documents, subcontracts, Purchase Order, etc.

#### **6.8 Disposal of Scrap and Unused T&I and EPC CONTRACTOR ITEMS**

Disposal and scrap of unused T&I CONTRACTOR ITEM are solely responsible by T&I CONTRACTOR. Of which any items imported or related to Government, it shall be handled and subject to government approval and APPLICABLE LAW.

The T&I CONTRACTOR shall be fully responsible for all activities and costs incurred on such surplus and scrap T&I CONTRACTOR ITEMS that are disposed in or removed from WORKSITES and SITE. Such surplus and scrap shall be separated, managed and controlled for each development Asset (e.g. Arthit, G8/50, G1/61 or G2/61). This shall be read in conjunction with AGREEMENT 14.5.

Regarding EPC CONTRACTOR ITEMS if require to keep or use on transportation barge in order to support T&I CONTRACTOR performance, the T&I CONTRACTOR shall be fully responsible for all activities and costs incurred on such surplus and scrap of EPC CONTRACTOR ITEMS until handover it to EPC CONTRACTOR at his WORKSITE.

## **7.0 SSHE Management of WORK Performance**

The T&I CONTRACTOR shall develop and implement a PROJECT specific SSHE MS for the WORK and the PLANT which shall as a minimum comply with the SSHE Requirements described in Exhibit L, article 24 of the AGREEMENT, APPLICABLE LAWS, and the other terms and requirements of the CONTRACT.

The T&I CONTRACTOR may utilize his own Company SSHE MS however such system shall be upgraded by the T&I CONTRACTOR specifically for the WORK and the PROJECT. The T&I CONTRACTOR shall propose the SSHE MS and SSHE MS documentation to the COMPANY for APPROVAL. All as further described and explained in Exhibit L.

## **8.0 Quality Management**

### **8.1 General Requirement**

The T&I CONTRACTOR shall effectively manage and implement Quality Management for all aspects of the WORK and the PROJECT in compliance with ISO 9001 or 29001 requirements, Exhibit H, APPLICABLE LAWS and the other provisions of the CONTRACT.

The T&I CONTRACTOR shall impose and implement like Quality Management on VENDORS, SUBCONTRACTOR and to the extent applicable, on third parties and SUPPLIERS.

### **8.2 Project Quality Plan**

The T&I CONTRACTOR shall develop and maintain a PROJECT Quality Plan as required by Exhibit H. The PROJECT QUALITY PLAN shall describe how QA/QC will be implemented for the WORK and the PLANT and shall contain a list of QA/QC procedures and plans the T&I CONTRACTOR will produce for the WORK including but not limited to the QA / QC plans and procedures listed in Exhibit A Annex-1.

### **8.3 Independent Inspection and Certification**

#### **8.3.1 Selection and Appointment**

Selection and appointment of the Independent Third Party Inspection / Certifying Authority shall be made in accordance with the following requirements and shall be subject to prior written approval by the COMPANY

- a) AGREEMENT article 11 SUBCONTRACTOR and VENDORS
- b) Exhibit J (List of VENDORS and SUBCONTRACTORS),
- c) Exhibit G Annex-2 (Procurement and Material Control),
- d) Exhibit H (Quality Management)
- e) the other terms and requirements of the CONTRACT.

The Independent Third Party Inspection Agency shall be accredited to ISO/IEC 17020 "Type A", subjected to the below requirements and COMPANY approval.

#### **8.3.2 Independent Engineering Review**

Not Used.

#### **8.3.3 Independent Third Party Inspection and Certifying Authority**

The T&I CONTRACTOR shall employ a competent, experienced and qualified Independent Inspection and Certification Agency to inspect, verify, witness, review and certify:

- a) CONSTRUCTION EQUIPMENT, including but not limited to lifting apparatus derrick cranes, slings and shackles for lifting, etc.
- b) T&I CONTRACTOR ITEMS including but not limited to pipeline, 3D/5D bend, WYE, subsea structures, etc., and
- c) Any other to inspection, verification, witnessing, reviews and certification required to be performed by Independent Third Party Inspection Agency

as per the terms and requirements of the CONTRACT and or APPLICABLE LAWS

#### **8.3.4 T&I CONTRACTOR Responsibilities**

The T&I CONTRACTOR shall co-ordinate the activities of the Independent Third Party Inspection Agency and shall provide in a timely manner all necessary and or requested documents and other information, as well office accommodation and facilities, and safe access for his PERSONNEL to review and/or inspect the WORK, the RESULT OF THE WORK, and CONSTRUCTION EQUIPMENT.

The T&I CONTRACTOR shall comply with Independent Third Party Inspection Agency comments, recommendations and findings without limitation or restriction to the T&I CONTRACTOR's obligations, responsibilities and liabilities under the CONTRACT.

Any aspects of the T&I CONTRACTOR DOCUMENTS/WORK identified by the Independent Third Party Inspection Agency or the COMPANY that do not comply with the requirements of the CONTRACT shall be rectified by T&I CONTRACTOR at his own cost and expense.

#### **8.4 Marine Warranty Surveyor**

##### **8.4.1 Selection and Appointment**

The T&I CONTRACTOR shall engage the services of an independent Marine Warranty Surveyor, who shall perform the Marine Warranty Surveyor WORK to be performed with regard to the EPC WORK and the T&I WORK.

The Marine Warranty Surveyor shall be selected and appointed by the T&I CONTRACTOR in accordance with the requirements of this CONTRACT including but not limited to:

- d) Article 11 (SUBCONTRACTING and VENDORS),
- e) Exhibit G Annex-2 (Procurement and material Control) and
- f) the other terms and requirements of this CONTRACT.

Selection and appointment of the Marine Warranty Surveyor shall be subject to prior written approval by the COMPANY.

##### **8.4.2 MWS Scope of WORK**

The MWS shall perform the WORK ascribed to the MWS as per:

- a) Sub-article 16.3 of the AGREEMENT
- b) Exhibit A Section 8.4 (Marine Warranty Surveyor),
- c) Exhibit A Annex-4 (Marine Warranty Surveyor Scope of WORK)
- d) the other terms and requirements of this CONTRACT.

##### **8.4.3 T&I CONTRACTOR Responsibilities and Obligations with regard to MWS Activities**

The T&I CONTRACTOR shall perform at his own cost and expense, all required and necessary WORK to support and facilitate the performance of T&I WORK related Marine Warranty Surveyor activities, including but not limited to provision of T&I CONTRACTOR DOCUMENTS for review and approval, safe, clear, clean access for inspections, office accommodation at onshore WORKSITES, onshore and offshore transport, accommodation, messing and laundry onboard MARINE SPREAD etc.

The T&I CONTRACTOR shall co-ordinate the activities of the Marine Warranty Surveyor for both the EPC WORK and the T&I WORK.

The T&I CONTRACTOR shall comply in a timely manner with any and all Marine Warranty Surveyor Requirements (recommendations, instructions, directions, conditions in Marine Warranty Certificates, etc.) without any additional cost and or expense to the COMPANY.

Compliance with such Marine Warranty Surveyor Requirements shall not limit, restrict nor relieve the T&I CONTRACTOR of his responsibilities and or liabilities under the terms of this CONTRACT and APPLICABLE LAWS.

No Load Out Operations, no Marine Transport Operations and no SITE Installation Operations shall be initiated / commenced before written approval / certification by the Marine Warranty Surveyor. A minimum list of such required approvals certificates is provided in Exhibit A Annex-4 Attachmemnt-2.



## 9.0 Engineering

### 9.1 General Requirements

The T&I CONTRACTOR shall perform all required and necessary engineering for the correct and complete detailed definition of the WORK and the PLANT in accordance with the terms and requirements of the CONTRACT and APPLICABLE LAWS.

In addition to the Engineering Package as stated herein, during detailed engineering execution, COMPANY will only provide the native files including AutoCAD Files, PDMS Model, Engineering Analysis related to the Scope of WORK (i.e. pipeline hydraulic steady, topside steady state, for T&I CONTRACTOR to use as for his reference and further develop his Detailed Engineering WORK and to optimize his Detailed Engineering man-hours without any liability or obligation, whatsoever on the part COMPANY.

Annex 10 of this Exhibit A have defined the scope of WORK and responsibility of EPC CONTRACTOR and T&I CONTRACTOR regarding the WORK which require interface between the parties.

#### 9.1.1 Work Package 1

EPC CONTRACTOR shall be responsible for detailed engineering for new Wellhead Platform, exchange and provide the detailed engineering package require for T&I CONTRACTOR to further develop the detailed transportation and installation.

T&I CONTRACTOR shall be responsible for the detailed transportation and installation engineering for Wellhead platform topside, jacket, appurtenances and piled foundations. T&I CONTRACTOR shall exchange and provide information to EPC CONTRACTOR as the agree timeline in accordance with Exhibit C.

#### 9.1.2 Work Package 2

All scope of WORK of this Work Package that include but not limit to Pipeline systems including Topside Pipeline up to Pig Receiver/Launcher, riser, tie-in spools, Pipeline shall be responsible by T&I CONTRACTOR. However, T&I CONTRACTOR may ask or request the design input from EPC CONTRACTOR time to time that EPC CONTRACTOR shall coordinate and provide such information upon the request or in accordance with the CONTRACT requirement.

For Optional scope of WORK, T&I CONTRACTOR shall perform detailed engineering for post-installed riser, riser clamps, riser protector on existing wellhead platform, PLEM and WYE which refer to DESIGN DOSSIER at Exhibit E, Annex-10. Output of the design shall provide to EPC CONTRACTOR for existing Wellhead Platform Verification.

#### 9.1.3 Work Package 3

EPC CONTRACTOR's scope of WORK for detailed engineering shall include but not limit to:

- Particular Design of Existing Topside Brownfield Modification

In case of optional scope of WORK either Pig receiver and its facilities, deck extension (under EPC CONTRACTOR scope of WORK) or post-installed riser (under T&I CONTRACTOR scope of Work Package 2) are required, EPC CONTRACTOR shall perform the existing Wellhead Platform Verification to ensure that the integrity of existing Wellhead Platform meet with the design requirement.

T&I CONTRACTOR shall review, comment and feedback the design package provided by EPC CONTRACTOR in order to meet with the requirement for offshore modification WORK.

#### 9.1.4 Work Package 4

EPC CONTRACTOR's scope of WORK for detailed engineering shall include but not limit to:

- Existing Topside Design Verification
- Particular Design of New Jacket, Piles, Boatlanding and appurtenances (similar with Work Package 1)
- Particular Design of Navigation Aids Platform

The detailed scope of work shall refer to Exhibit A, Annex 11.

T&I CONTRACTOR's scope of WORK for detailed transportation and installation engineering for Topside Relocation, new jacket, appurtenances, piled foundations and Navigation Aids Platform. T&I CONTRACTOR shall exchange and provide information to EPC CONTRACTOR as the agree timeline in accordance with Exhibit C.

#### 9.1.5 Work Package 5

All scope of WORK of this Work Package shall be responsible by T&I CONTRACTOR. Detailed requirement refer to Exhibit A, Annex 13.

### 9.2 **Engineering Software**

The T&I CONTRACTOR shall use and comply with the Engineering Software requirements as specified in Exhibit A Annex-2.

### 9.3 **Engineering Execution Plan**

The T&I CONTRACTOR shall prepare and submit a fully developed Engineering Execution Plan (overall) for APPROVAL no later than thirty (30) days after the EFFECTIVE DATE.

The Engineering Execution Plan shall, as a minimum:

- a) describe and of how and where the engineering WORK will be performed
- b) the engineering objectives and key success factors
- c) the engineering activities, schedule and manpower plan
- d) engineering execution strategy for all phases of the WORK and APPROVAL process
- e) applicable principles and requirements for engineering documents and drawings
- f) engineering quality assurance and control
- g) third party and facilitated third party engineering studies
- h) list of proposed engineering software
- i) engineering interface management
- j) communication management
- k) engineering reviews
- l) incorporate COMPANY, T&I CONTRACTOR, EPC CONTRACTOR and major SUBCONTRACTORS lessons learned, engineering design variation, design improvement and optimization, Basic Engineering's Opened Action Items e.g. HAZID, HAZOP, SIL, Gap Register (Exhibit E, Annex-2), Hold Register (Exhibit E, Annex-3), PTR#2 (Exhibit E, Annex-4), and etc. as applicable

## **9.4 Verification of Engineering Data and Information**

### **9.4.1 Verification of Requirements Before Commencement of Engineering**

Before commencement of detailed engineering design activities, the T&I CONTRACTOR shall carefully verify the contents of the DESIGN DOSSIER, but not the RELY UPON INFORMATION, for completeness and suitability for use in the WORK and for the PLANT.

The T&I CONTRACTOR shall notify the COMPANY in writing of all errors, conflicts and omissions within the DESIGN DOSSIER and of any errors, conflicts and omissions between the DESIGN DOSSIER including RELY UPON INFORMATION and the other CONTRACT DOCUMENTS together with proposed solution and supporting technical justification.

All such errors, conflicts and omissions (if any) shall be resolved as per AGREEMENT article 6 (Interpretation of the CONTRACT).

### **9.4.2 Basic Engineering's Opened Action Items of OWHP**

Before commencement of related detailed engineering activities in Work package 2, the T&I CONTRACTOR shall close out Basic Engineering Open Action items that relevant with T&I CONTRACTOR's scope of WORK including but not limited to those in:

- a) Hold Register stipulated in Exhibit E, Annex-3,
- b) PTR#2 stipulated in Exhibit E, Annex-4,
- c) HAZID,
- d) HAZOP
- e) SIL

The T&I CONTRACTOR shall perform all required and necessary WORK to engineer and to close out the Basic Engineering's Opened Action Items, and to update the relevant documents and drawings in the DESIGN DOSSIER accordingly, in timely manner.

The T&I CONTRACTOR shall submit an optimized plan for closure of Basic Engineering's Opened Action Items for APPROVAL describing each Basic Engineering's Opened Action Items, the documents and drawings affected and the manner in which the T&I CONTRACTOR to proposes to close out Basic Engineering's Opened Action Items i.e. by updated document and or drawing or by Closure Record Sheet.

Closure of each Basic Engineering's Opened Action Items shall be subject to APPROVAL and the T&I CONTRACTOR shall report close out progress and status on a weekly basis until close out of all Basic Engineering's Opened Action Items is APPROVED.

## **9.5 3D PDMS Model**

The EPC CONTRACTOR shall develop and maintain 3D PDMS model covering a bird's eye view and a walkthrough of the complete model for Topsides, Jacket, and brownfield modification WORK.

T&I CONTRACTOR PERSONNEL shall attend and participate the 3D PDMS model reviews workshop (30%, 60% and 90%) that will be arranged by EPC CONTRACTOR.

## **9.6 Material Selection**

The EPC CONTRACTOR shall utilize the material selection study from DESIGN DOSSIER (Exhibit E) for development of the detailed engineering design. Material selection is not required to newly develop again that shall refer to the following documents for Generic design.

However, material of Pig launcher and pipeline whether sour or non-sour depend on specific information from phase-specific SOR such as H2S and CO2 content:

- a) Topside Facility and Pipeline Corrosion Assessment and Material Selection Study Report, TH-BUN3-XX-WPGX-COR-RPT-0002.
- b) Topside Facility and Pipeline Corrosion Assessment and Material Selection Study Report, TH-BUN3-XX-WPOX-COR-RPT-0002.
- c) Topside Facility and Pipeline Corrosion Control and Material Selection Philosophy, TH-BUN3-XX-WPXX-COR-RPT-0001.
- d) Material for Offshore Steel Structures, 10016-STD-6-OSS-007-R01 and other applicable terms of the CONTRACT

**9.7 Safety Studies**

**9.7.1 General Requirements**

The following safety studies matrix shall be performed by the EPC CONTRACTOR include but not limit to Wellhead Platform, Associated Pipeline, Tie-ins and Brownfield Scope of WORK:

Safety Study	GWHP	OWHP
HAZID <sup>(1)</sup>	X	P
HAZOP <sup>(1)</sup>	X	P
Bow-Tie	X	P
EER Analysis	X	P
FERA	X	P
QRA	X	P
Vent Dispersion & Thermal Radiation Study (including noise, toxic, temperature)	X	P
Dropped Object Study (Topside, Associated Pipeline and tie-ins)	X	P
SIL Classification and Verification to demonstrate the detailed engineering design complies with the specified SIL levels <sup>(1)</sup>	X	P
Hazardous Area Classification schedule and drawing	X	P
Hot plume dispersion study	X	P
Design Safety Case	X	P
SCE PS	X	P
ALARP <sup>(1)</sup>	X	P

P: Perform by EPC CONTRACTOR

X: Only update or revisit from Detailed Engineering package of GWHP

Note (1) Denotes third party facilitator and technically qualified scribe is required. The EPC CONTRACTOR shall propose lead facilitators for COMPANY APPROVAL.

The HAZID and HAZOP studies shall be undertaken at the early or intermediate stage of detailed engineering phase (30-40% progress) and all other studies in accordance with the APPROVED Detailed Work Time Schedule.

T&I CONTRACTOR shall arrange representative to attend the safety study workshop that relevant with his WORK.

#### 9.7.2 Safety Study Workshops

The EPC CONTRACTOR shall conduct separate safety study workshops for each of the above studies to be attended by T&I CONTRACTOR and COMPANY PERSONNEL and others as necessary. The location and date of each study workshop shall be proposed by the EPC CONTRACTOR for COMPANY APPROVAL. The EPC CONTRACTOR shall provide the meeting room and associated facilities.

The T&I CONTRACTOR shall prepare fully developed draft worksheets and associated procedures and deliverables under T&I CONTRACTOR scope of WORK and terms of reference to the COMPANY for APPROVAL no later than thirty (30) days before the date of the applicable safety study workshop.

#### 9.7.3 3<sup>rd</sup> Party Facilitators for Safety Study Workshops

The 3<sup>rd</sup> Party Facilitators shall be responsible by EPC CONTRACTOR.

#### 9.7.4 Design Safety Case

The design safety case workshop will be arranged by EPC CONTRACTOR. T&I CONTRACTOR shall provide T&I CONTRACTOR PERSONNEL available to attend this workshop.

#### 9.7.5 Operations Safety Case

The Operations Safety Case shall be performed by the COMPANY prior to platform start-up and as such is not part of the WORK. However, the T&I CONTRACTOR shall make available when requested the finalized Design Safety Case and referenced documents for COMPANY use (number and type of copies to be advised). The T&I CONTRACTOR shall also make T&I CONTRACTOR PERSONNEL available to answer promptly any questions that may arise concerning the finalized Design Safety Case.

#### 9.7.6 Tracking and Close Out of Safety Engineering Actions

The T&I CONTRACTOR shall incorporate the Safety Engineering Actions (result/finding/comment from the workshops) into the WORK and the PLANT as applicable according to the scope of WORK

The T&I CONTRACTOR shall track status and close out of T&I CONTRACTOR, VENDOR, SUPPLIER and SUBCONTRACTOR safety engineering and safety study actions by means of a SEAMS (Safety Engineering Action Monitoring System) report which shall be updated regularly by the T&I CONTRACTOR and shall be submitted every week for REVIEW. The format and content of initial SEAMS tracking register shall be submitted to the COMPANY for APPROVAL.

### 9.8 **Detailed Engineering Design for Wellhead Platforms**

#### 9.8.1 General Requirements

The provided DESIGN DOSSIER regarding the Wellhead Platforms shall be read for information only. The detailed engineering design for Wellhead Platforms shall be performed by EPC CONTRACTOR with the T&I CONTRACTOR consult, support and verify if require in the timeline specified in Exhibit C.

9.8.2 Process Detailed Engineering Design

Not Used.

9.8.3 Safety Detailed Engineering Design

Not Used.

9.8.4 Mechanical Detailed Engineering Design

Not Used.

9.8.5 Piping Detailed Engineering Design

Not Used

9.8.6 Structural Detailed Engineering Design

T&I CONTRACTOR shall provide information related for installation to EPC CONTRACTOR and shall verify EPC CONTRACTOR's detail engineering deliverable to satisfy itself that the transportation and installation design meets all the requirements of statutory regulations, international codes standards and practices, COMPANY PROVIDED INFORMATION and SPECIFICATION in relation to T&I CONTRACTOR's Scope of WORK.

All conflicts, ambiguities and non-conformances shall be highlighted to COMPANY along with T&I CONTRACTOR's proposed rectification.

T&I CONTRACTOR shall perform the following activities as minimum:

9.8.6.1 Transportation and Installation arrangement

T&I CONTRACTOR shall provide preliminary Transportation and Installation arrangement detail for COMPANY and EPC CONTRACTOR within 60 days after EFFECTIVE DATE.

- MARINE SPREAD information,
- Transportation and Installation method (including piles installation sequence, Boat landing),
- Preliminary Structural offshore hook up method e.g. Pile-Jacket connection, Pile-topside connection, stairway connection and etc.
- Transportation plan and Barge Layout
- Sea fastening preliminary arrangement
- "Determine floatation and upend sequence" or "select heading and hook load for 2 block upending to meet requirements and capacity of the barge"
- Maximum hook load requirements
- Shackle, Pad-eye, Trunnion and Lifting lug size and configuration
- Floatation device including jacket leg diaphragm, Buoyancy tank, flooding compartment, flooding method and equipment
- Any other Material, Installation aids requirement for EPC CONTRACTOR to consider in platform design (However, Installation aid detail design shall be responsible by T&I CONTRACTOR)
- Detail of available hammers (short list of 2-4 Hammers)
- Jacket Levelling method and load
- Minimum mudline clearance
- Offshore weld detail design

- Any other arrangement requested by EPC CONTRACTOR and COMPANY

This information may be changed subject to the mutual agreement among EPC CONTRACTOR, T&I CONTRACTOR and COMPANY. Without mutual agree with EPC CONTRACTOR, T&I CONTRACTOR may make the final call for change of the installation arrangement with COMPANY APPROVAL but the consequence and cost incur from EPC CONTRACTOR shall be settled under T&I CONTRACTOR responsibility.

#### 9.8.6.2 Structural Basis of design

T&I CONTRACTOR shall verify the information related to the scope of WORK which is used as the basis for the analysis.

#### 9.8.6.3 Topsides Pre-service Analysis

T&I CONTRACTOR shall

- Verify the information which is used as the basis for the analysis
- Review transportation ability, stability and integrity of the transportation barge
- Review lift ability and installation restrictions if any, using the crane barge as specified
- Review analysis results, check representations of slings, lifting point eccentricities, hook and spreader frames as appropriate
- Review design of installation aids

#### 9.8.6.4 Jacket Pre-service Analysis

T&I CONTRACTOR shall

- Verify the information which is used as the basis for the analysis
- Review transportation ability, stability and integrity of the transportation barge
- Review and verify Flootation analysis
- Review upending padeyes and rigging as necessary
- Review recommended upending procedure, which includes summaries of the hook loads at each stage of the sequence and the estimated durations
- Review sketches showing jacket and its pre-install appurtenances, altitude and sling tensions during the proposed upending sequence
- Review final upending study based on the equipment and installation selected.

#### 9.8.6.5 Jacket On-Bottom Stability

T&I CONTRACTOR shall

- Review design of the mudmat configuration/calculation for the environmental criteria.
- Review pile installation sequence, based on drivability report provided by COMPANY, and presence of temporary buoyancy, if used.
- Review the limiting sea conditions (Hmax. and current) for the unpiled jacket and its pre-install appurtenances for stability.
- Review the minimum pile penetrations required for on-bottom stability including checking the pile stick-up stresses and dynamics for this condition.
- Review pile stick up calculations, stabbing guide design, pile upending analysis and pile stopper design.

#### 9.8.6.6 Jacket Appurtenances Design

T&I CONTRACTOR shall

- Review detailed design of lift points (i.e. padeyes, trunnions) of all offshore installed jacket appurtenances such as, boat landing and riser protectors (if required) and pile stoppers.
- Review detailed design of all other substructure details not specifically mentioned elsewhere, such as: lifting beams, sling rubbing beams, mooring cleats and bollards (if any), flooding and grouting system (if any), shim plates, spacer plates, handrails, service platforms, buoyancy tanks, appurtenances, and the like with respect to the installation Scope of WORK.
- Review mud-mat design from EPC CONTRACTOR, in the event that mud-mat area/size is required to increase from T&I CONTRACTOR request without technical and engineering justification, cost incur from additional WORK of EPC CONTRACTOR shall be borne by T&I CONTRACTOR.

9.8.6.7 Weight Control Report

Refer to weigh control requirement in section 9.8.13

9.8.6.8 Pile Drivability and Stick up

T&I CONTRACTOR shall

- Mutually determine hammer size according to COMPANY PROVIDED INFORMATION and provided Hammer's list with EPC CONTRACTOR and propose for COMPANY APPROVAL
- Verify Pile Drivability and Pile stick up

9.8.6.9 Load out and Transportation analysis

T&I CONTRACTOR shall

- Verify Transportation and sea fastening design and structural integrity calculation
- Review Sea transportation analysis if towing duration more than fifteen (15) days with five (5) knots for barge and twelve (12) knots for vessel. This analysis shall include sagging and hogging effects.

9.8.6.10 Miscellaneous Design and Calculation

T&I CONTRACTOR shall review and verify other miscellaneous wellhead platform detail design as related to Scope of WORK e.g. installation aid drawing, Platform Hook up drawing, drawing for offshore work and etc.

9.8.6.11 Structural drawings including general notes and standard details

T&I CONTRACTOR shall review and verify all wellhead platform structural drawings as related to Scope of WORK e.g. installation aid drawing, Platform Hook up drawing, drawing for offshore work and etc.

However, installation aids, grillage and sea fastening engineering drawing shall be provided by T&I CONTRACTOR as stipulated in Section 11 and 12 of this Exhibit.

9.8.7 Electrical Detailed Engineering Design

Not used.

9.8.8 Instruments Detailed Engineering Design

Not used.



9.8.9 Telecommunication Detailed Engineering Design

Not used.

9.8.10 Provision for Future (by others) Equipment and Sparing

Not used.

9.8.11 Materials Handling Study

Not used.

9.8.12 Layout of Wellhead Platform Topside

Not used.

9.8.13 Weight Control

The T&I CONTRACTOR shall review and verify the Weight Control Procedure and Weight control report prepared by EPC CONTRACTOR.

The T&I CONTRACTOR and MWS shall witness the weighing operation and verify the weighing report. T&I CONTRACTOR and MWS shall also review the actual weight and COG and any consequence of the actual weight and COG. If there is any such consequence, T&I CONTRACTOR shall raise in written to COMPANY with the proposed rectification no later than 7 days after the weighing.

**9.9 Pipeline Detailed Engineering Design**

9.9.1 General Requirements

The T&I CONTRACTOR shall perform detailed engineering design for the new pipeline systems including but not limited to pipelines, tie-in spools, post installed risers, post installed riser clamps, riser protector, valves, topside piping to pig traps, tie-ins and anything else required for the new pipeline system.

The pipeline detailed engineering shall be developed in accordance with pipeline basic engineering provided by COMPANY in EXHIBIT E, Annex 1.

9.9.2 Boundary Limits

Boundary limits for the pipeline system detailed engineering design are from the pig trap on new wellhead platform to the existing pig trap on existing wellhead platforms. The T&I CONTRACTOR shall perform detailed engineering for new pipeline system including, verifying the pipeline route on the topside design by EPC CONTRACTOR, verifying the existing riser, riser clamps and concerned facilities after tied-in.

9.9.3 Pre-Engineering Survey

Not Used

9.9.4 Pipeline Detailed Engineering activities

The T&I CONTRACTOR shall perform required and necessary pipeline detailed engineering design for the detailed definition of the WORK and the PLANT as per the requirements of this Exhibit A and the other terms and requirements of the CONTRACT.

Pipeline detailed engineering design shall include but is not limited to the following activities:

- a) Provide the complete list of Pipeline Detailed Engineering Technical Documents for inclusion in the MDDR (see Exhibit A Section 5.5)
- b) Verify and incorporate VENDOR, SUPPLIER and SUBCONTRACTOR Pipeline Detailed Engineering Design, information and data into the T&I CONTRACTOR's detailed engineering design
- c) Review, progressively update and re-verification the Pipeline Basis of Design
- d) Verify linepipe material selection

Preform Flow assurance study and Report

The scope of flow assurance shall be responsible by T&I CONTRACTOR with the following minimum requirement:

Steady State:

- i. Steady state simulations are to be developed in the latest version of OLGA or PIPESIM with latest production profile data, pipeline and operating conditions to comply with the production throughput and specification in Process Design Basis and SOR. Note that production flowrate will be confirmed later.
- ii. The following parameters in the study shall include but not limited to pressure profile, temperature profile, liquid hold up, flow regime, fluid velocity profile, erosional velocity ratio, density profile, hydrate and slug volume.
- iii. Perform sensitivity study to establish a range of condition (Flow rate, Pressure and Temperature) within which the process may operate and assess the impact during off-design conditions. The case studies shall be included but not limited to the following:
  - Perform study to be input for pipeline design (at design conditions and maximum operating conditions)
  - Perform study for case maximum flowrate. Back pressure will be determined.
  - Perform study to identify turndown flowrates

For above case studies, high and low export pressure shall be considered.

Transient Analysis:

Transient simulations are to be developed in the latest version of OLGA to support pipeline mechanical design and pipeline walking assessment.

- i. Perform study to establish the transient temperature profile which represent the possibly maximum and minimum temperature along each pipeline
- ii. Minimum simulation cases for each pipeline shall be as follows;
  - Shutdown without depressurized and restart
  - Shutdown with depressurized and restart

The result from flow assurance study shall provide to EPC CONTRACTOR for develop the Wellhead Platform Detailed Engineering.

- e) Review of COMPANY provided geophysical and geotechnical data
- f) Perform pipeline route selection
- g) Verify and finalize line sizing (wall thickness selection)
- h) Verify anti-corrosion coating of the pipeline, subsea tie-in spools, and risers
- i) Perform cathodic protection design of the pipeline system
- j) Corrosion protection of field joints and mechanical protection of same
- k) Pipeline on bottom stability analysis (verification of concrete weight coating thickness for pipeline and tie-in spools)
- l) Pipeline in-place strength analysis

- m) Pipeline on bottom roughness assessment
- n) Pipeline expansion analysis and design of the expansion subsea tie-in spools
- o) Maximum allowable free spans
- p) Bottom Roughness Assessment
- q) Calculation of forces applied to anchoring points and verification that such forces remain below allowable values, as specified by COMPANY (during initiation if applicable).
- r) Global, upheaval, lateral buckling analysis and buckling mitigation.
- s) Pipeline walking analysis with finite element method
- t) Detailed definition of submarine flanged tie-in spools (procedures and calculations)
- u) Detailed definition and design of risers, clamps, topside piping and valves from top of riser to pig trap.
- v) Riser span analysis (including existing risers as optional scope)
- w) Risers and subsea tie-in spools flexibility analysis (including existing risers after tie-in as optional scope)
- x) Riser clamp design
- y) Riser protector design (for existing wellhead platform as optional scope)
- z) Permanent protection design including but not limited to flange protection
- aa) Pipeline installation analysis
- bb) Pipeline maximum allowable free span and fatigue analyses
- cc) Perform any other pipeline detailed engineering design required and or necessary for the completion of the WORK and the PLANT in accordance with the terms of the CONTRACT and APPLICABLE LAWS

#### 9.9.5 Pipeline Start Up and Commissioning Requirements

The T&I CONTRACTOR shall prepare and submit a comprehensive and fully developed Pipeline Start-up and Commissioning manual for APPROVAL. This manual shall contain detailed guidelines, in accordance with the COMPANY and international standards, for the start-up and commissioning of the pipeline systems.

#### 9.9.6 Pipeline Operation and Maintenance Manual:

The T&I CONTRACTOR shall prepare and submit a comprehensive and fully developed Operation and Maintenance Manual for the pipeline system. The manual as a minimum shall contain entire functional requirement / SPECIFICATIONS of the equipment / spares which shall be utilized by the COMPANY in order to monitor, inspect, maintain and operate the pipelines.

### 9.10 **Post-Installed Riser Detailed Engineering Design (optional)**

#### 9.10.1 General Requirement

T&I CONTRACTOR shall be responsible for the detailed engineering of the Post-installed riser, riser clamp, riser protector up to the field weld joint above the hanger clamp at elevation of Topside-Pile connection approximately.

The engineering work of the post-installed riser shall be already a part of the pipeline detail engineering up to pig receiver as specified in 9.9.4.

The engineering work for the riser protector and riser clamp shall be a part of this section.

Annex 10 of this Exhibit A have defined the scope of WORK and responsibility of EPC CONTRACTOR and T&I CONTRACTOR regarding the WORK which require interface between the parties.

#### 9.10.2 Engineering Surveys of Existing Host Facilities

Subjected to COMPANY APPROVAL, T&I CONTRACTOR may request engineering survey of Existing Host Facilities if seem necessity with the following requirement.

However, regardless of the engineering survey, T&I CONTRACTOR shall design the pre-installed riser with high flexibility to be adjusted at SITE to suit with the actual condition of existing facilities.

##### 9.10.2.1 Arrangements for Access to Existing Facilities

The T&I CONTRACTOR shall prepare and submit to the COMPANY for APPROVAL all required and necessary documentation including but not limited to:

- a) Engineering Survey Procedure,
- b) JSA, PTW, risk assessments and mitigations etc.,
- c) helicopter / crew boat travel requests etc.,
- d) PTTEP Safety & Health Verification stipulated in Exhibit A Section 12.4.7 not less than sixty (60) days before the schedule date of each survey.

##### 9.10.2.2 Pre-engineering Survey of Existing Host Facilities

T&I CONTRACTOR may perform pre-engineering survey to inspect the existing host facilities and to measure, document and gather all data and information necessary for design, detailed engineering and construction engineering of the Post-Installed Riser WORK.

T&I CONTRACTOR shall prepare and submit to COMPANY for APPROVAL a detailed procedure for the pre-engineering survey below as minimum:

- a) Details, layout, dimensions, etc., of post-installed riser, riser protector and connection where suitable to install and connect with the topside facilities.
- b) Verification of as-built drawings (layouts, structural drawings, Pipeline arrangement, and the like), if as-built drawings are not available T&I CONTRACTOR shall record actual details.
- c) Anything else necessary and or required for the performance of the post-installed riser WORK.

T&I CONTRACTOR shall prepare and issue a pre-engineering survey report no later than fourteen (14) days after the completion of the pre-engineering survey.

##### 9.10.2.3 Post-engineering Survey of Existing Host Facilities

The T&I CONTRACTOR may perform a post-engineering survey of the existing host facilities prior to completion of detailed engineering and construction engineering for the post-installed riser WORK.

The purpose of the post-engineering survey of the existing host facilities is for the T&I CONTRACTOR to identify changes made since the pre-engineering survey (if any) and to update the detailed engineering and construction engineering for the post-installed riser WORK accordingly.

The schedule for post-engineering site surveys in principle shall be no sooner than 4 months prior to offshore execution. This is in order to ensure the information obtaining from the post-engineering facility is the most up-to-date.

The T&I CONTRACTOR shall update the pre-engineering survey report to post engineering survey report for COMPANY review no later than fourteen (14) days after the completion of the applicable survey visit.

#### 9.10.2.4 Offshore Transportation and Accommodation

For pre-engineering and post-engineering surveys of existing host facilities the COMPANY shall provide free of charge;

- a) Transportation for T&I CONTRACTOR PERSONNEL either by crew boat or helicopter (subjected to availability) to and from the COMPANY's onshore base to COMPANY's offshore location, for one (1) visit each for the pre-engineering and post engineering surveys for each NTP. Maximum four (4) CONTRACTOR per visit.
- b) Offshore accommodation and infield transportation by crew boat from the COMPANY's location to the existing host facilities.

Additional visits shall be back-charged to T&I CONTRACTOR except for separate survey groups and/or times caused by COMPANY SITE condition and or POB constraints.

#### 9.10.3 Other Detailed Engineering for Post-Installed Riser

The T&I CONTRACTOR shall perform other detailed engineering of post-installed riser include but not limited to, with the following specific requirements:

- a) Detail Structural engineering of the Riser Protector and its support shall comply with the existing platform structural Basis of Design including Local in-service analysis, boat impact analysis and preservice analysis as minimum

T&I CONTRACTOR shall provide Load from the post-install riser and riser protector in native modelling/calculation for COMPANY and/or EPC CONTRACTOR to verify the global structural integrity.

T&I CONTRACTOR shall provide calculation and engineering drawing for COMPANY and/or EPC CONTRACTOR to incorporate as as-built drawing

#### 9.11 **Detailed Engineering for Pipeline Walking**

For pipeline walking as part of global buckling analysis (base scope), T&I CONTRACTOR to perform detailed engineering for pipeline walking.

- a) Conduct transient analysis with OLGA to support pipeline mechanical design and pipeline walking analysis refer to Section 9.9.4.
- b) Perform pipeline walking analysis to assess the potential pipeline walking range throughout the pipeline design life for spool design. Note that the spool design to sustain pipeline walking shall be part of the base scope (item 9.9)

#### 9.12 **Detailed Engineering for Operation and Maintenance**

Not used

## 10.0 PROCUREMENT SERVICES AND SUPPLY

### 10.1 General Requirements

The T&I CONTRACTOR shall perform all required and necessary procurement services and shall supply all required and necessary T&I CONTRACTOR ITEMS in a correct and timely manner in accordance with the requirements of:

- a) AGREEMENT sub-article 14.5 (Procurement and Supply of T&I CONTRACTOR ITEMS),
- b) this Exhibit A and Annex 12
- c) Exhibit J (List of VENDORS and SUBCONTRACTORS),
- d) Exhibit G Annex-2 (Procurement and Materials Control), and
- e) the other terms and requirements of the CONTRACT, APPLICABLE LAWS.

COMPANY reserve its right to utilize COMPANY available long term agreement with any VENDORS or SUPPLIERS for Material Group 1 (refer to Exhibit A, Annex 12) and T&I CONTRACTOR shall provide the procurement service accordingly.

#### 10.1.1 Work Package 1:

T&I CONTRACTOR shall be responsible for Procurement services and supply for Work Package 1 and deliver to EPC CONTRACTOR WORKSITE as following and except the material supply by EPC CONTRACTOR:

- supply of all ASME B31.8/B31.4 pipeline, Riser, Bends, subsea flanges & blind flanges and bolts, nuts, gaskets
- Installation Aids
- providing information, be represented for consulting, verifying and witness as stipulated in Exhibit A, Exhibit A Annex 10, AGREEMENT and EXHIBITS

EPC CONTRACTOR shall be responsible for Procurement services and supply of all material require for performance of the Work Package 1 (all material for new Wellhead Platform) except the material supplied by T&I CONTRACTOR. EPC CONTRACTOR shall include below items for the scope of supply;

- Sea fastening and grillage
- Steel material for installation aids fabrication (e.g. beam, shape, plate, tubular, pipe)

#### 10.1.2 Work Package 2:

T&I CONTRACTOR shall be responsible for Procurement services and supply for all material require for performance of the WORK of Work Package 2 as following:

- Supply of all line pipe (including Coating as required) and bend material for all pipeline system from Pig launcher (New Wellhead Platform side) to sub-sea tie-in spools (Existing facilities side) EPC CONTRACTOR shall provide MTO for Line pipe and bend required for pre-installed riser and topside fabrication within the timeframe in Exhibit C.
- Supply of all Subsea fittings for pipeline system which is below the first weld joint above the hanger Clamp e.g. Flange, valve, bolt, nuts, gaskets and etc.
- Supply of any other material required for pipeline system which is not provided by EPC CONTRACTOR as identified above and in Exhibit A Annex 10

For Optional scope of WORK, T&I CONTRACTOR shall be responsible for Procurement services and supply for items below refer to the detailed in Exhibit E, Annex-10,

- Any Subsea structure/Equipment for pipeline system as required e.g. Subsea PLEM/WYE, Pipeline crossing sleepers. (except subsea Valves, WYE, Bends and pipeline material)
- Support structure for Post Installed riser such as riser protector, clamps, riser stubs for the existing wellhead platform up to the first weld joint above hanger clamp

10.1.3 Work Package 3:

This Work Package shall be responsible by EPC CONTRACTOR as optional scope if require.

10.1.4 Work Package 4:

EPC CONTRACTOR shall provide material require for Topside Relocation refer to Exhibit A, Annex 11, Annex 12 and Exhibit E Annex 11 which include but not limit to:

- Jacket, Boatlanding, Piles and etc. (requirement shall similar with Work Package 1)
- Hook up material for Platform Completion items such as ladder, stairs, piping and miscellaneous items
- Grillage, Temporary support and Sea-fastening material require for transportation of Topside include items require to install on the transportation barge and ship loose items such as dock plates, bracing, etc require for T&I CONTRACTOR install at SITE.
- Steel material for installation aids fabrication (e.g. beam, shape, plate, tubular, pipe)
- Navigation Aid Platform and its sea fastening

T&I CONTRACTOR shall provide material require for Topside Relocation refer to Exhibit A, Annex 11, Annex 12 and Exhibit E Annex 11 shall include but not limit to:

- supply of all ASME B31.8/B31.4 pipeline, Riser, Bends, subsea flanges & blind flanges and bolts, nuts, gaskets for new Jacket (requirement shall similar with Work Package 1)
- Installation Aids
- Other material required for Transportation and Installation exclude material supplied by EPC CONTRACTOR.

10.1.5 Work Package 5:

COMPANY shall supply material require for Work Package 5 in accordance with Exhibit I as base case. However, COMPANY may instruct T&I CONTRACTOR to procure such material in Exhibit I as optional scope of WORK.

T&I CONTRACTOR shall provide other material except COMPANY ITEMS require for new FSO pipeline, PLEM and Tie-ins WORK refer to Exhibit A, Annex 12, Annex 13 and Exhibit E Annex 12 which include but not limit to:

- Line pipe coating supply and service
- Miscellaneous material for Pipe-in-Pipe include but not limit to centralizer, bulkhead, insulation media, etc
- Pipe in pipe assembly service
- Flexible spools
- Supply of all Subsea fittings for new FSO pipeline system e.g. Flange, valve, bolt, nuts, gasket and etc.
- Supply of all Subsea miscellaneous equipment/structure for new FSO PLEM, Flange protector, Crossing sleeper, concrete mattress, etc.

## 10.2 Procurement Services

The procurement services to be performed by the T&I CONTRACTOR are further described in Exhibit G Annex-2 and include but are not limited to:

- a) Establishment of the T&I CONTRACTOR's Procurement and Supply Organization.
- b) Mobilization and demobilization of the T&I CONTRACTOR's Procurement PERSONNEL.
- c) Procurement Management Plan (to be issued within thirty (30) days after EFFECTIVE DATE)
- d) Procurement control, status monitoring and reports
- e) Selection and minimum criteria for selection of VENDORS and SUBCONTRACTORS
- f) Tendering, evaluation, APPROVAL and award of Purchase Orders and SUBCONTRACTS
- g) VENDOR and SUBCONTRACTOR Correspondence and Technical Documents
- h) Expediting, inspection and testing
- i) Shipping documents, logistics and transportation
- j) Logistics and importation procedures
- k) Spare parts and SPIR forms
- l) WORKSITES procurement services
- m) Provide RFQ, TBE for tagged equipment, Technical deviation (if any)
- n) Conduct expediting meeting for all packages by weekly basis. It may request for daily basis based on project situation.
- o) KOM between T&I CONTRACTOR and VENDORS shall be conducted within seven (7) days after PO or LOI.
- p) Table summary for Priced PO including bulk materials (by discipline, by tagged items, etc.)

## 10.3 Green Procurement

T&I CONTRACTOR, SUBCONTRACTOR, VENDORS, SUPPLIERS shall use their best endeavors to comply with best practice Green Procurement Criteria and to promote and implement best practice criteria and environmental management throughout the entire supply chain in order to provide more environmentally responsible products.

The Green Procurement aims for procurement of products and services that impose less environmental burden through the proper use of chemical substances, preservation of ecosystems, energy efficiency, longer durability, resource conservation, ease of recycling, disassembling, and disposing of parts, from suppliers who are positively addressing environmental activities. (see also Exhibit G Annex-2)

The T&I CONTRACTOR shall cascade the above requirements down to VENDORS, SUBCONTRACTORS and SUPPLIERS and ensure compliance.

## 10.4 Supply of T&I CONTRACTOR ITEMS

### 10.4.1 General Requirements

The T&I CONTRACTOR shall procure and supply all required and necessary T&I CONTRACTOR ITEMS comprising packaged equipment, itemized (tagged) items and materials and non-itemized (bulk) items and materials, and anything else required for the WORK and the PLANT.

The T&I CONTRACTOR shall plan and schedule in advance and shall ensure VENDOR documents submissions for APPROVAL, review, and the incorporation of COMPANY



comments as well as procurement, manufacturing, testing, transportation and delivery to the WORKSITE is done in a correct and timely manner in accordance with the APPROVED Procurement Plan, the final AFC Technical Documents and the requirements of the CONTRACT, APPLICABLE LAWS and GOVERNMENT.

#### 10.4.2 Major SUBCONTRACTS

Major SUBCONTRACTORS shall be those identified as such in Exhibit K. Appointment of all SUBCONTRACTORS and the award of all SUBCONTRACTS shall be subject to the prior APPROVAL of the COMPANY in accordance with the process stipulated in Exhibit G Annex-2.

#### 10.4.3 Quantities of T&I CONTRACTOR ITEMS

The T&I CONTRACTOR shall procure sufficient quantities of T&I CONTRACTOR ITEMS in a timely manner, including allowance for waste, contingency, over, shortage, damage and all other risks, together with sufficient quantities of construction spare parts, first fills and consumables and overbuy per type of bulk materials so as to prevent hold-ups or disruption in the performance of the WORK that applicable for Material Group 2. For Material Group 1, T&I CONTRACTOR shall propose the sufficient quantities for COMPANY APPROVAL prior proceed the procurement process.

#### 10.4.4 Quality and Type of T&I CONTRACTOR ITEMS

All T&I CONTRACTOR ITEMS shall be new and of proven design and shall be procured from APPROVED VENDORS. Prototypes, new designs, extensive modifications of standard designs and the like shall be specified in TBE and subject to COMPANY APPROVAL prior placing P.O. The T&I CONTRACTOR shall cascade this requirement as part of PO terms and conditions.

#### 10.4.5 Kick off Meeting for VENDORS and SUBCONTRACTORS.

The T&I CONTRACTOR shall arrange a separate kick-off meeting for each VENDOR's and SUBCONTRACTOR's package. The purpose of such kick of meetings are:

- a) To check conformity of technical documents provided to / to be provided to VENDORS and SUBCONTRACTORS with latest issue of AFC documents.
- b) To review the inspection program and reports and identify critical items.
- c) To review corrective actions carried out or proposed by T&I CONTRACTOR for such critical items.
- d) To review the Factory Acceptance test procedures and check the test records.
- e) Verify accuracy of the Materials Control Procedure.
- f) Review SSHE mode, risk analysis and SSHE MS arrangements
- g) All other technical and schedule aspects.

#### 10.4.6 Inspection and Testing of T&I CONTRACTOR ITEMS at Place of Manufacture

Inspection shall be done subject to and in accordance with the requirements of Exhibit H, APPROVED ITPs and the other applicable terms of the CONTRACT.

Use of Third-Party Agencies for inspections other than T&I CONTRACTOR PERSONNEL shall subject to prior written APPROVAL from the COMPANY.

#### 10.4.7 Factory Acceptance Tests

FAT shall be performed subject to and accordance with the requirements of Exhibit H and the terms of the CONTRACT.

For Material Group 1, T&I CONTRACTOR shall arrange the reasonable number of T&I CONTRACTOR PERSONNEL for FAT for the package in accordance with the requirement in Exhibit A, Annex 12. The cost for T&I CONTRACTOR PERSONNEL shall include in the Procurement Management and Expediting Service cost, except the travelling and accommodation cost which shall be reimbursed once the location is confirmed during execution.

Attending the FAT activities for COMPANY PERSONNEL, travelling fares, accommodation during FAT visits, will not be in the T&I CONTRACTOR scope.

Before each FAT to be attended by COMPANY PERSONNEL, the T&I CONTRACTOR shall ensure that a FAT has been fully and successfully conducted for all critical items/functions and witnessed by VENDOR and T&I CONTRACTOR. Any additional FAT inspection visits shall be made as required to fulfill inspection point requirements, or to confirm correction of all deficiencies.

In the event of additional FAT inspection visits including cost for COMPANY PERSONNEL as mentioned above is required to fulfill the correction of all deficiencies, it shall be the T&I CONTRACTOR to accommodate such cost incurred and/or the CONTRACT PRICE shall be adjusted accordingly.

Unless otherwise agreed to by the COMPANY all notifications for attending FAT shall be officially submitted to COMPANY no later than thirty (30) days before the planned date for commencement of the FAT. All costs and expenses arising from the failure to notify as per the foregoing and any delays arising shall be for the T&I CONTRACTOR's account and borne by the T&I CONTRACTOR.

Documents required for the FAT shall be early identified in the package KOM with VENDOR. The T&I CONTRACTOR shall ensure all documents required for FAT are in AFC status prior FAT as schedule therein.

Any deficiencies or defects shall be immediately listed and summary part of FAT report including action plan for the close out and target date. FAT punch lists shall all be closed before dispatched to WORKSITES, unless mutual agreed by COMPANY in writing where delivery with punch list conditions could be allowed. Formal submission of Release Note including close out evidence of all the punch list shall be submitted to COMPANY prior release of shipment.

10.4.8 Supply of First Fills and Consumable Materials

Not used.

**10.5 Ship Loose Materials, Spare Parts and Associated Items**

T&I CONTRACTOR shall prepare and handover ship loose material to COMPANY the following.

10.5.1 Hook-Up Flow Line

Not used.

10.5.2 Spare Parts for Offshore Commissioning and Start Up

Not used.

10.5.3 Operational Special Tool/ Material Handling Equipment

Not used.

10.5.4 Two-Years and Operational Spare Part List

Not used.

10.5.5 Spare Pipeline Spool for Emergency Pipeline Repair

COMPANY shall instruct T&I CONTRACTOR for the Q'ty and detailed of coated line pipe, bends and etc. if require to supply by T&I CONTRACTOR during execution phase. T&I CONTRACTOR shall arrange the transportation and deliver spare material to COMPANY designated location as per section 10.6.

10.5.6 COMPANY ITEM Spare Parts

Not used

**10.6 Transportation and Delivery of Ship Loose, Spare Parts and Associated Items**

The T&I CONTRACTOR immediately on completion of the applicable WORK activities shall deliver surplus and ship loose items to COMPANY designated Supply Base in Songkhla or other location in Thailand as per instructed by COMPANY via DAP (Delivery At Place) INCOTERMS 2010.

All such items shall be itemized and containerized and weights of filled containers shall not exceed 10 tonnes (metric tons). Delivery arrangements shall be subject to APPROVAL and the T&I CONTRACTOR shall co-ordinate delivery so as to avoid disruption to COMPANY shore-based operations.

All the above shiplooses shall be provided with Material Test Certificate (MTC), Material Data Book and relevant Certificate and submitted in advanced for COMPANY Review. Subsequently, T&I CONTRACTOR shall make all required document as listed above to be available at the time of shiploose handover to COMPANY Supply Base. T&I CONTRACTOR shall notify in writing to COMPANY, at least two weeks, prior handover such shiploose items to COMPANY Supply Base for preparation and arrangement.

COMPANY may instruct T&I CONTRACTOR to hand over above each of above ship loose categories to COMPANY Supply Base in separate time and occurrence at COMPANY convenient schedule.

**10.7 Procurement Monitoring and Control**

The T&I CONTRACTOR shall monitor and report procurement progress (POs and subcontracts) and prepare and maintain a Procurement Status Report (PSR) which shall show progress (planned and actual) for all procurement items and issue updated PSR on a weekly basis.

The format and content of the PSR shall comply with the requirements of Exhibit G Annex-2 and shall be proposed by the T&I CONTRACTOR for APPROVAL.

The T&I CONTRACTOR shall propose and implement mitigating actions / activities for procurement items for which actual progress is less than planned progress.

**10.8 VENDOR and SUPPLIER Assistance**

The T&I CONTRACTOR shall provide all required and/or necessary VENDORS' service representatives for assistance during fabrication, pre-commissioning and commissioning. The T&I CONTRACTOR's execution plan for VENDOR assistance shall form part of the PROJECT Procurement Plan and shall be subject to APPROVAL.

## **11.0 Onshore Construction**

### **11.1 General Requirements**

The T&I CONTRACTOR shall perform onshore construction as per the above Scope of WORK including but not limited to line pipe coating, fabrication, assembly, construction, testing, pre-commissioning and commissioning, preservation, Loadout and Sea-fastening in accordance with the requirements of:

- a) AGREEMENT sub-article 14.6
- b) this Exhibit A and Annex 10
- c) Exhibit A Annex-5 (Pre-commissioning / Commissioning Responsibilities)
- d) Exhibit A Annex-6 (Preservation and Protection)
- e) Exhibit A Annex-7 (Services and Facilities for the COMPANY)
- f) Exhibit H Quality Management
- g) Exhibit K T&I CONTRACTOR's Organization and Resources
- h) Exhibit L SSHE requirement
- i) SPECIFICATIONS
- j) APPLICABLE LAWS
- k) APPROVED AFC (Category C) T&I CONTRACTOR DOCUMENTS
- l) the other terms and provisions of the CONTRACT

The interface scope of work between EPC CONTRACTOR and T&I CONTRACTOR, T&I CONTRACTOR shall refer to Interfacing Matrix, shown on Exhibit A Annex 10.

#### **11.1.1 Work Package 1:**

All Onshore Construction for Work Package 1 shall be performed by EPC CONTRACTOR. However, T&I CONTRACTOR shall be responsible to support EPC CONTRACTOR for the Onshore Construction activities such as providing the interface information, be represented for consulting, verifying and witness at EPC CONTRACTOR WORKSITE as stipulated in this Exhibit A.

#### **11.1.2 Work Package 2:**

Scope of this Work Package for the new pipeline systems from the first connection of first tie-in spool at the new Wellhead Platform to the last tie-in flange at the subsea PLEM/WYE, existing bottom riser of existing Wellhead Platform as base scope including flange protectors shall be responsible by T&I CONTRACTOR.

For Optional scope of WORK, T&I CONTRACTOR shall be responsible for onshore construction activities for below items refer to the detailed in Exhibit E, Annex-10,

- Any Subsea structure/Equipment for pipeline system as required e.g. Subsea PLEM/WYE, Pipeline crossing sleepers.
- Post-installed riser, riser protector and its support structure at the existing wellhead platform up to the first weld joint above hanger clamp
- For clarity, this shall except the pre-installed riser and its support structure of new Wellhead Platform that is base scope and include in Work Package 1

#### **11.1.3 Work Package 3:**

This Work Package shall be responsible by EPC CONTRACTOR as optional scope if require.

#### **11.1.4 Work Package 4:**

EPC CONTRACTOR's onshore construction scope of WORK in this work package shall include all pre-fabrication to complete the WORK but not limit to;

- Jacket, Boatlanding, Piles and appurtenances (requirement shall similar with Work Package 1)
- Hook up items for Platform Completion such as riser hook up spools, ladder, stairs, piping and miscellaneous items
- Grillage, Temporary support and Sea-fastenning require for transportation of Topside include items require to install on the transportation barge and ship loose items such as dock plates, bracing, etc require for T&I CONTRACTOR install at SITE.
- Navigation Aid Platform and its sea fastenning

Refer to detailed scope of WORK at Exhibit A, Annex-11

T&I CONTRACTOR's onshore construction scope of WORK in this work package shall include all pre-fabrication to complete the WORK but not limit to;

- Other fabrication items require to support Transportation and Installation WORK exclude EPC CONTRACTOR ITEMS.

#### 11.1.5 Work Package 5:

T&I CONTRACTOR's onshore construction scope of WORK in this work package shall include all pre-fabrication to complete the WORK but not limit to;

- Line pipe coating
- Fabricate and assembly Pipe-in-Pipe as per specification and requirement in Exhibit A, Annex 13 and Exhibit E, Annex 12.
- Fabricate miscellaneous equipment/structure require for new FSO pipeline system e.g. FSO PLEM, Flange protector, Crossing sleeper, concrete mattress (if require), etc.

### 11.2 **Onshore Construction Execution Plan**

The T&I CONTRACTOR shall prepare and submit a fully developed, detailed and comprehensive onshore construction execution plan not later than ninety (90) days after the EFFECTIVE DATE to the COMPANY for APPROVAL.

The onshore construction execution plan shall as minimum describe:

- a) The onshore construction engineering and onshore construction WORK to be performed
- b) List of WORKSITES and onshore construction WORKSHOPS
- c) Onshore construction resources and time scaled resource plan and histograms (T&I CONTRACTOR PERSONNEL and CONSTRUCTION EQUIPMENT).
- d) Material handling, receiving, transportation, storage and preservation and tracking procedure. For COMPANY ITEMS, tagged items and packaged equipment, the procedure shall incorporate VENDOR/SUPPLIER recommendation as minimum
- e) Proposed list and scope of work of SUBCONTRACTORS, VENDOR and SUPPLIER and their mobilization/demobilization plan
- f) Sequence of fabrication, assembly, welding, erection, commissioning/pre-commissioning and Loadout
- g) List the onshore construction procedures and plans to be prepared by the T&I CONTRACTOR
- h) Interfaces and interface management.
- i) Quality management plan including the following as minimum:

- i) Inspection test plan
  - i) Proposed arrangements for management, implementation, monitoring, control, inspection testing and APPROVAL.
  - ii) Welding Procedure Qualification (WPQ) test plan
  - iii) Zero punch list program
  - iv) Daily QC Database and progress tracking
- j) Onshore construction SSHE management Plan as per requirement in Exhibit L

The same shall apply to Major fabrication SUBCONTRACTORS (if any) who shall prepare the onshore construction/fabrication execution plan with the same detail for the specific scope of WORK not later than ninety (90) days after EFFECTIVE DATE for APPROVAL.

### 11.3 Onshore Construction Engineering

For Clarity, section 11.3.1 and 11.3.3 are applicable only for fabrication of T&I CONTRACTOR ITEM (i.e. Pipeline, post-installed riser, riser protector, PLEM/WYE, flange protector and Brownfield modification related) and not applicable for EPC CONTRACTOR ITEM (i.e. Wellhead Platform fabrication)

#### 11.3.1 Fabrication Engineering

T&I CONTRACTOR shall perform all required and necessary fabrication engineering for the detailed definition and performance of the WORK and submit for COMPANY APPROVAL. Fabrication engineering shall include, but not limited to the following scopes:

- a) Fabrication yard layout at each major stage
- b) Pipeline Coating, including repair procedures
- c) Shop drawings and Cutting plans, and Calculation note including the preparation and issue of documents necessary for the pre-fabrication, fabrication and erection WORK, such as the following;
  - i) Temporary supports
  - ii) Structural panel and appurtenance pre-fabrication
  - iii) Riser and Pipeline pre-fabrication
  - iv) Temporary templates, jigs, and the like,
  - v) installation aids, guiding and protective structures,
- d) Assembly plan of the structural WORK
- e) Lifting plans and method statement of Heavy lifting and Site move activity
- f) Weight Monitoring and Control procedure (if require)
- g) Quality control/assurance procedure as per the requirement in section 8.0 and exhibit H
- h) Painting and repair procedure
- i) T&I CONTRACTOR ITEMS and COMPANY ITEMS storage, preservation and records

#### 11.3.2 Load out Engineering

##### 11.3.2.1 Load out Engineering of EPC CONTRACTOR ITEMS

T&I CONTRACTOR shall support the Load out Engineering of EPC CONTRACTOR as following:

- a) Provide the detail of the transportation barge structure, barge layout, sea fastening design and drawings (internal and external) including cut-lines and any other detail requested by EPC CONTRACTOR no later than the time frame in Exhibit C.
- b) Verify the Load out procedure especially the barge integrity and the ballast plan during the Loadout activity.

Coordinate between EPC CONTRACTOR and the Marine Warranty Surveyor for MWS review and MWS approval then to the COMPANY for APPROVAL for Loadout procedure and get MWS to witness at EPC CONTRACTOR WORKSITE for READY FOR LOADOUT and READY FOR TRANSPORTATION CERTIFICATE.

If T&I CONTRACTOR fail to support the EPC CONTRACTOR as detail above and timeline in accordance with Exhibit C, the consequence of such fault shall be reimbursable to T&I CONTRACTOR.

#### 11.3.2.2 Loadout Engineering of T&I CONTRACTOR ITEMS

The T&I CONTRACTOR shall perform load-out engineering for all components under its scope of WORK to ensure that integrity of transportation barge shall meet the requirement for loadout operation and submit to the Marine Warranty Surveyor for review and MWS approval then to the COMPANY for APPROVAL. Load out engineering shall include, but not limited to the following:

- a) Verification of the barge stability and barge strength for all loading cases.
- b) Review and verify Loadout Procedures including Ballasting sequences with actual tidal and current
- c) Analysis for temporary reinforcement of transportation barge if require
- d) Specific CONSTRUCTION EQUIPMENT and SUBCONTRACTORS
- e) Skidding or lifting analysis
- f) Strength analysis/check for all Load-out related component e.g. Skid ways, dollies or trailers, sliding shoe, Quay side, link beam, Pad-eyes/ears, trunnions, shackles, slings, Jetty's Bollard and other temporary appurtenances
- g) Barge grillage, ballasting and stability
- h) Environmental data and weather forecasting
- i) Develop sea fastening design and drawings (internal and external) including cut-lines to allow re-use of sea fastening where applicable
- j) Coordinate between EPC CONTRACTOR and the Marine Warranty Surveyor
- k) Bathymetric Survey of Loadout's jetty

The T&I CONTRACTOR shall prepare and submit loadout engineering and detailed procedures for load-out, and sea fastening for each vessel voyage no later than sixty (60) days before the planned loadout date for APPROVAL. The loadout engineering and detailed procedures shall be submitted for APPROVAL after review and APPROVAL by MWS.

#### 11.3.3 Pre-Commissioning & Commissioning Engineering

T&I CONTRACTOR shall develop general construction completion verification check sheet which to be used as pre-requisite condition to initiate pre-commissioning activity. The verification shall include COMPANY APPROVAL of general construction partial or full completion of sub system.

The T&I CONTRACTOR shall issue Pre-commissioning and Commissioning Procedures for the WORKS under T&I CONTRACTOR scope for COMPANY review at least one hundred



and twenty (120) days before the commencement of any Pre-commissioning and Commissioning operations. Procedures shall follow project document review cycles.

The Pre-commissioning Engineering shall incorporate VENDOR and SUPPLIER recommendations and requirements and shall include, but is not limited to the following:

- a) Pre-commissioning and Commissioning Procedures for each discipline, and equipment incorporating VENDORS procedures for APPROVAL.
- b) Scheduling mobilization of T&I CONTRACTOR's Representative and VENDOR's representatives in accordance with the requirements of the WORK TIME SCHEDULE.
- c) Identify pre-commissioning and commissioning spare parts for both onshore at WORKSITE and offshore at SITE in accordance with Exhibit A Annex-8, VENDOR and SUPPLIER recommendations in sufficient quantities so as not to jeopardize the timely performance of the WORK, the WORK TIME SCHEDULE and COMPLETION DATES.
- d) Pre-commissioning and Commissioning job cards, including scope, test values, reference drawing or other document, testing equipment, test duration, and other test parameters, referred to Exhibit A Annex-5 (Pre-commissioning / Commissioning Responsibilities).

The T&I CONTRACTOR shall develop onshore commissioning completion verification which require COMPANY APPROVAL. This verification shall be part of the requirement for Load Out Certificate.

The T&I CONTRACTOR shall ensure that pre-commissioning and commissioning status monitoring is performed efficiently using project information management system.

## **11.4 Other Requirements**

### **11.4.1 WORKSITES preparation**

WORKSITES shall be clear dedicated for PROJECT, sufficient areas, clear access and consider long period for fabrication and assembly. Concrete pavement, flooding precaution, proper drainage shall be taken into consideration when working thru raining season. Sub-assembly shall consider working under shading/ roof as much as possible so as to maximize the productivity in raining season. Number of site moves during major part's assembly shall be minimized so as to reduce transportation risks.

T&I CONTRACTOR shall provide soil bearing reports with respect to construction and loadout area and sequence specified below to verify the capacity of WORKSITES foundation areas are suitable for construction and loadout. The soil bearing report shall be not be older than 1 years before commencement of the fabrication.

T&I CONTRACTOR shall provide quayside and waterway bathymetry survey report with respect to loadout and transportation to verify WORKSITES capacity to Loadout and transport. The bathymetry survey report shall be not be older than 1 years before commencement of the fabrication and shall be re-verified just before first loadout and transportation if the bathymetry is marginal.

T&I CONTRACTOR shall submit preparation plan of the WORKSITES specified in Exhibit K to fill in the gap(s) in the above WORKSITES requirement for COMPANY APPROVAL within sixty (60) days after EFFECTIVE DATE.

### **11.4.2 Dimensional Control**

The T&I CONTRACTOR shall effectively implement, manage dimensional control for the fabrication WORKS. The dimensional control procedure shall be completed and submitted for APPROVAL no later than sixty (60) days before the planned start date for onshore fabrication. The procedure shall define in following detail as minimum:

- a) Methodology and tool for dimensional control
- b) Establishing of permanent and stable survey benchmark stations and submit for COMPANY APPROVAL prior to the commencement of assembly WORK. T&I CONTRACTOR shall engage independent third party surveyor for verification of the benchmark station.
- c) Dimensional checks frequency and acceptable tolerance to ensure that tolerances specified in the SPECIFICATION, design drawings and proper fit-up during the installation offshore of the overall PLANT shall be satisfied.
- d) Dimensional inspector qualification and competency
- e) Calibration of dimension control equipment and instrument
- f) Specific project formats for dimension control report

#### 11.4.3 Welding and NDT Qualification

The scope of WORK includes Welding, Welder and NDT qualification to meet the requirement define in detail in Exhibit H.

#### 11.4.4 Weighing (applicable for Work Package 1)

In accordance with the APPROVED Weight Control Procedure (see Exhibit A Section 9.8.13 and the requirements of SPECIFICATION 10008-STD-6-OSS-019, T&I CONTRACTOR shall witness weighing of the PLANT to verify the weight and center of gravity.

As regard to weighing operations for final installation, EPC CONTRACTOR shall give COMPANY and T&I CONTRACTOR (who will further inform Marine Warranty Surveyor) three weeks prior written notice to enable them to witness such operations. The document recording the final weight values will be signed by T&I CONTRACTOR and co-signed by COMPANY and Marine Warranty Surveyor.

Produce weighing report and update weight control report to reflect the weighing results for all weight conditions and produce the final weight control report in "as-weighing stage".

#### 11.4.5 Onshore Construction SUBCONTRACTORS

Scope of works for major onshore construction/fabrication SUBCONTRACTOR as identified in Exhibit K, milestone/ schedule, terms & conditions, progress payment method, specific SSHE requirements bridging to the main CONTRACT, shall be submitted to COMPANY for review within sixty (60) days after EFFECTIVE DATE.

Other onshore construction SUBCONTRACTORS list and strategy shall be submitted for COMPANY APPROVAL within ninety (90) days after EFFECTIVE DATE.

COMPANY reserve right to request other onshore construction subcontracting RFQ (including scope of scope of work, scheduling, term and condition, term of payment and SSHE requirement) for APPROVAL or review prior launching of subcontracts tendering process.

TBE for onshore construction subcontracts may also be requested for COMPANY's APPROVAL for any specific scope of work, in such case T&I CONTRACTOR shall not award sub-contracts without COMPANY APPROVAL.

#### 11.4.6 Technical and Readiness Review for Onshore Construction

The purpose of this review will be:

- a) To review any document not available during the above engineering review and to confirm compliance with that review
- b) To review changes to the specifications and designs post Approved For Construction
- c) To confirm that the preparation of plans and procedures for onshore pre-commissioning and commissioning is in progress in accordance with schedules.
- d) To check correctness of documents used for fabrication/construction.
- e) To review the welding/NDT procedures.
- f) To check conformity of welding operation with welders qualification.
- g) To check storage conditions for COMPANY and T&I CONTRACTOR ITEMS, and ensure that VENDORS instructions are complied with.
- h) To review SSHE procedures and SSHE Risk Management to ensure meet with standards.
- i) To check conformity of fabricated elements with AFC documentation.

The technical readiness review for Onshore Construction shall be held no later than thirty (30) days before planned first commencement of onshore fabrication.

#### 11.4.7 SSHE Commencement and Restoration Certificates for Fabrication Yards

##### 11.4.7.1 SSHE Commencement Certificates

Before commencement of WORK at a Fabrication Yard a pre-commencement SSHE review meeting shall be held to be attended by COMPANY and T&I CONTRACTOR PERSONNEL.

The purpose of the pre-commencement SSHE review is to verify compliance with SSHE Requirements including but not limited to the Fabrication Yard and facilities, CONSTRUCTION EQUIPMENT, PERSONNEL, training, tools, inspection/certificates, medical check-up report etc., all to be as per the APPROVED SSHE Execution Plan.

The results of the SSHE review shall be recorded in the SSHE Commence Certificate which shall be issued by the COMPANY. The T&I CONTRACTOR shall implement any corrective action items in a timely manner. The rights and obligations of the PARTIES with regard to SSHE Commencement Certificates shall be as stated in Exhibit L.

##### 11.4.7.2 SSHE Restoration Certificates for Fabrication Yards

Upon completion of WORK at a Fabrication Yard a SSHE Review meeting shall be held, attended by COMPANY and T&I CONTRACTOR PERSONNEL to verify that demobilization and site restoration are complete and satisfy all requirements. Whereupon the COMPANY will issue a SSHE Restoration Certificate. The rights and obligations of the PARTIES with regard to SSHE Restoration Certificates shall be as stated in Exhibit L.

#### 11.5 **Fabrication for Wellhead Platform**

Fabrication for Wellhead Platform shall be performed by EPC CONTRACTOR except fabrication of post-installed riser, associated riser clamp and associated riser protector.

However T&I CONTRACTOR shall witness and verify the quality, integrity and dimension of the PLANT according to the APPROVED procedure and SPECIFICATION to ensure that EPC CONTRACTOR's work shall not interfere/obstruct/defect T&I CONTRACTOR WORK in the transportation and installation phase as detailed in section 12.

Once the PLANT is handed over from EPC CONTRACTOR to T&I CONTRACTOR in the sail-away date as the mechanism in READY FOR TRANSPORTATION CERTIFICATE. T&I CONTRACTOR shall be responsible for the result of the WORK, T&I CONTRACTOR PERSONNEL, and related defect on the PLANT which arisen afterward.

The T&I CONTRACTOR shall perform all required and necessary to support fabrication WORK at the EPC CONTRACTOR WORKSITE in compliance with terms and provisions of the CONTRACT, including but not limited to:

11.5.1 Structural fabrication WORK for Jackets and Piles

T&I CONTRACTOR shall witness and verify the Jacket, Piles and appurtenances fabrication at EPC CONTRACTOR's WORKSITE including the following activity as minimum:

- a) Installation aids arrangement, erection and pre-installed on the Jacket or Piles which related to Transportation and installation i.e. Pad-eye, Lifting Trunnion, Floatation device, Sea Fastening and etc.

Dimensional control of the mating points between Jacket, Topside, Piles and Boat Landing to ensure smooth of offshore installation for the Wellhead Platform  
Trial fit of Boat landing, Pile/ Jacket Connection (Crown Shim), Pile Stabbing Guide  
Etc.

11.5.2 Structural WORK for Topside

T&I CONTRACTOR shall witness and verify the fabrication as seem necessary at EPC CONTRACTOR's worksite as same as section 11.5.1.

11.5.3 Equipment Installation

Not used.

11.5.4 Piping, Fabrication and Erection

Not used.

11.5.5 Riser Fabrication and Erection

11.5.5.1 *Pre-installed riser at New Wellhead Platform*

T&I CONTRACTOR shall witness and verify the quality, integrity and dimension of the pre-installed riser, topside pipeline and also its riser hook up spool piece according to the APPROVED procedure and SPECIFICATION to ensure that EPC CONTRACTOR's work shall not interfere/obstruct/defect T&I CONTRACTOR WORK in the transportation and installation phase as detailed in section 12.

11.5.6 Electrical, Instrument, Telecommunication and Safety

Not used.

11.5.7 Safety Equipment

Not used.

11.5.8 Painting, Coating, and Miscellaneous Works

Not used.

11.5.9 Onshore Pre-commissioning and Commissioning

Not used.

11.5.10 Preservation

Not used.

11.5.11 Zero Punch List program

The T&I CONTRACTOR PERSONNEL shall participate the Zero Punch List program at EPC CONTRACTOR WORKSITE and shall use his best endeavors to verify and witness all EPC CONTRACTOR WORK and list down any defect he found before the sail away date to avoid conflict at later stage.

Remarks for Work Package 1, 3 and 4:

“Onshore punch list” shall be defined as the remaining work which can be done by EPC CONTRACTOR at onshore but was not done before the sail away and “the defect which are found after the sail away but was proved to be EPC CONTRACTOR fault”. Onshore Punchlist shall be under EPC CONTRACTOR’s scope of work.

“Offshore punch list” shall be defined as the remaining work which can’t be done onshore and shall be done by T&I CONTRACTOR i.e. hook up for Wellhead Platform completion, WORK which have to be done after PLATFORM hook up and “defects which are found after sail away but can’t be proved to be EPC CONTRACTOR fault” Offshore Punchlist shall be under T&I CONTRACTOR’s scope of WORK.

11.5.12 Load-out and Sea Fastening

EPC CONTRACTOR’s scope of load-out operation, sea fastening fabrication and installation for Wellhead Platform shall include all activities and provision of EPC CONTRACTOR PERSONNEL and resources required and necessary for the preparation and load-out operations for the PLANT, Part of PLANT, necessary spare part, CONSTRUCTION EQUIPMENT.

Load-Out and Sea Fastening WORK shall include but is not limited to:

- a) Provision of load-out and sea fastening procedures, analysis, drawings and reports.
- b) Performance of functional and capacity tests and/or load tests of all loadout equipment such as Self-Propelled Modular Trailer (SPMT), bogies, ballasting pumps, winches, hydraulic jacks, slings, cranes, and etc.
- c) Preparation of suitable mooring arrangements before, during and after the load-out. The mooring utilized during load-out shall be a system allowing re-tensioning of the mooring at any time.
- d) Load out temporary structures, supports and other means require for load-out
- e) Movement of jackets, topside, and any other items to be loaded out from fabrication or storage area(s) to loading area(s)
- f) All required reinforcements for Load-out, securing WORK (including the internal sea fastening of PLANT) and voyage protection (if applicable).
- g) Load-out onto transportation barges including provision of installation and removal of all temporary works, materials and equipment, necessary for load-out operations.
- h) Placing and sea-fastening for the Loaded-out Part of the PLANT as per the SPECIFICATION and/or direction form MWS
- i) Provision and installation of all temporary equipment, material and tools for sea fastening on cargo barges.

- j) Inspection and testing of sea fastening shall be approved and endorsed by T&I CONTRACTOR, MWS and COMPANY.
- k) Remove all temporary padeyes/trunnion for Loadout and sea-fastening activity
- l) Achieving of READY FOR LOAD-OUT CERTIFICATE and READY FOR TRANSPORTATION CERTIFICATE(S) as per article 19.1.1 in the AGREEMENT prior to proceed with load out and transportation, respectively.
- m) Arrangement of assist tug or vessel to bring transportation barge (provided by T&I CONTRACTOR) from the Designated Anchorage Point (port in location) to alongside with EPC CONTRACTOR' jetty, up on the completion of loadout operation, complete sea fastening installation and ballasting the transportation barge to transportation condition, EPC CONTRACTOR shall assist to bring transportation barge with Wellhead Platform out to the Designated Anchorage Point (port out location).

T&I CONTRACTOR shall responsible to obtain the Gas Free Certificate prior to handover the transportation spread (transportation barge and associated towing anchor handling tug) for EPC CONTRACTOR at the Designated Anchorage Point (out of the port and before pilot embarking, custom clearance and immigration) by notification EPC CONTRACTOR in accordance with the requirement and notification window in Exhibit C and the following requirement:

- For the first trip of each barge for each installation year, Barge shall be delivered as clean flat barge condition
- For the subsequence trip of the barges, EPC CONTRACTOR and T&I CONTRACTOR may mutual agree to reuse the installed grillage and sea fastening as seem appropriate. EPC CONTRACTOR shall be responsible to clear, modify and reuse the agreed grillage and sea fastening.
- EPC CONTRACTOR shall return the barge to the Designated Anchorage Point with completed load-out, sea fastening and custom clearance of the part of the PLANT and ballast the barge to be ready for sail-away on the planned sail-away date
- Topside and Jacket are combined in the same transportation barge as base case, the duration above shall be increased as per Exhibit C.
- Transportation barge with grillage and sea fastening of last PHASE for each installation year shall be return to EPC CONTRACTOR WORKSITE. EPC CONTRACTOR shall remove and clean the barge and hand over the barge back to T&I CONTRACTOR as clean flat barge condition.
- EPC CONTRACTOR shall reconcile grillage and sea fastening after completion of Installation of each year in order to identify the quantity of reusable which shall be preservation and storage at EPC CONTRACTOR WORKSITE for next Installation year and quantity of scrap that require to dispose in accordance with the Article 14.5 of AGREEMENT.
- T&I CONTRACTOR shall confirm and notify EPC CONTRACTOR thirty (30) days prior the last transportation barge for each Installation year will arrive the EPC CONTRACTOR WORKSITE and EPC CONTRACTOR shall complete removal of grillage and sea fastening within seven (7) days.

T&I CONTRACTOR shall support EPC CONTRACTOR who is responsible for overall load out and sea-fastening activities of wellhead platform as defined below:

- Provide Grillage and Sea-fastening engineering drawing which is the result of the installation engineering WORK stipulated in section 12.3.2 for EPC CONTRACTOR to prefabricate and install accordingly
- Monitor EPC CONTRACTOR in pre-fabrication and installation of the grillage and sea fastening to ensure its quality and integrity

- EPC CONTRACTOR shall be responsible for supply of material and pre-fabrication of the grillage and sea fastening up to 100 metric tons (base weight) for each jacket and Piles transportation barge and 50 metric tons (base weight) each topside transportation barge only. EPC CONTRACTOR shall maximize the reuse of the grillage and sea fastening structure.
- T&I CONTRACTOR shall be responsible for the optimization design of the grillage and sea-fastening material and fabrication. Any excessive requirement from his design for the additional material and fabrication of grillage and sea fastening, cost incur shall be compensated by T&I CONTRACTOR.
- EPC and T&I CONTRACTOR shall use his best endeavor to maximize reuse of the Grillage and Sea-fastening as much as reasonable. EPC CONTRACTOR shall reuse and modify of the existing grillage and sea-fastening on the barge and shall be responsible to preserve and reinspection of the grillage and sea fastening.
- Co-ordinate with MWS to Achieving of READY FOR LOAD-OUT CERTIFICATE and READY FOR TRANSPORTATION CERTIFICATE(S) as per article 19.1.1 in the AGREEMENT prior to proceed with load out and transportation, respectively.
- Other T&I CONTRACTOR responsibilities as defined in Exhibit-A Annex10

Loadout operation shall complete within the duration in accordance with the requirement in Exhibit C.

The T&I CONTRACTOR shall also ensure to arrange the Transportation Spread to the loadout quay, that decks are clear of obstructions and ready for installation of barge grillage steelwork, and any required internal reinforcement or barge reinforcement is completed. In order to ensure the accessibility of access way/water way, the transportation barge provided by T&I CONTRACTOR shall be managed and controlled the maximum draft of towing condition from anchorage point to EPC CONTRACTOR loadout quay and EPC CONTRACTOR loadout quay to anchorage point. "Maximum Draft of Towing Condition" is 3.8 m.

Or otherwise subject to mutual agree between EPC and T&I CONTRACTOR, tide of water way to EPC CONTRACTOR shall be confirmed and managed together by both parties in order to allow transportation barge access to EPC CONTRACTOR loadout quay safely.

In the other hand, EPC CONTRACTOR shall be responsible to take all necessary actions to provide the access for transportation barge without obstacle and ensure that the water level of water way (access way) from anchorage point to EPC CONTRACTOR loadout quay shall be minimum of "Maximum Draft of Towing Condition" plus Zero point five (0.5) meter.

#### 11.5.13 Installation aids fabrication and erection

EPC CONTRACTOR shall Supply (refer to Exhibit A, Annex 10), fabricate and install installation aids for Wellhead Platform including as applicable:

- i) Diaphragm leg closures
- ii) Buoyancy aids
- iii) Lifting trunnions
- iv) Flooding/ballasting and up-ending systems
- v) Jacket Levelling Systems (if applicable) and their commissioning
- vi) Main and secondary pad-eyes (if applicable)
- vii) Lifting devices (slings, shackles and the like)
- viii) Rigging platforms and temporary working platforms
- ix) Transition Pieces

T&I CONTRACTOR shall support the EPC CONTRACTOR who is responsible for installation aids fabrication and erection activities of wellhead platform as defined below:

- Provide installation aid engineering drawing which is the result of the installation engineering WORK stipulated in section 12.3.2.1 for EPC CONTRACTOR to prefabricate and erect accordingly
- Monitor EPC CONTRACTOR in pre-fabrication and erection of Installation Aids to ensure its quality and integrity
- EPC CONTRACTOR shall be responsible for supply of material and pre-fabrication of the installation aids up to 50 metric tons (base weight) for each Wellhead Platform installation only. EPC CONTRACTOR shall maximize the reuse of the installation aids structure.
- T&I CONTRACTOR shall be responsible for the optimization design of the installation aids up to 50 metric tons (base weight) for each Wellhead Platform. Any excessive requirement from his design for the additional material and fabrication of installation aids, cost incur shall be compensated by T&I CONTRACTOR.
- EPC and T&I CONTRACTOR shall use his best endeavor to maximize reuse of the Installation Aids as much as reasonable. EPC CONTRACTOR shall reuse and modify of the existing Installation Aids on the barge and shall be responsible to preserve and reinspection.

EPC CONTRACTOR shall reconcile Installation Aids after completion of Installation of each year in order to identify the quantity of reusable which shall be preservation and storage at EPC CONTRACTOR WORKSITE for next Installation year and quantity of scrap that require to dispose in accordance with the Article 14.5 of AGREEMENT.

#### 11.5.14 Dropped ESDV, Valves and spading of export line for Pipeline Offshore Pre-Commissioning

Upon completion of pre-commissioning Topside, EPC CONTRACTOR shall drop ESDV, related valves of export line, provide and install dummy spools and spading which cover from pig launcher to ESDV. This will support offshore pipeline pre-commissioning that will be performed by T&I CONTRACTOR. T&I CONTRACTOR shall be responsible to verify, witness and supervise during EPC CONTRACTOR perform this scope of WORK at EPC WORKSITE to ensure that EPC CONTRACTOR fulfill T&I CONTRACTOR pipeline pre-commissioning requirement.

### 11.6 **Fabrication of Linepipe and Associated Items**

The T&I CONTRACTOR shall perform onshore fabrication of the new pipeline system components which are risers, pipelines (coatings and anodes), subsea tie-in spools, flange protections, and anything else required to complete pipeline system.

#### 11.6.1 Coatings:

The scope of pipeline coating WORK includes, but not limited to,

- a) Arrange T&I CONTRACTOR Representative to station at coating yard and ensure coating activities are perform in accordance with the requirement
- b) Transportation of linepipes/bends from VENDOR premises or storage area to coating area
- c) Prepare and ensure the line pipes and bends are in good condition, suitable for coating and does not hinder coating performance
- d) Coating Procedure qualification including repair procedure
- e) Coating of pipes and bends including overbuys, checking and repair when necessary
- f) Testing and marking
- g) Provision and installation of Anode



- h) Protective devices for handling, transport, stock piling, including end caps
- i) Storage, preservation and regular inspection as per SPECIFICATION
- j) Preparation and issue of report, including protection and repair procedure qualification

#### 11.6.2 Subsea Tie-in Spools:

The scope of pipeline subsea tie-in spool includes, but not limited to,

- k) Spool prefabrication including cutting, profiling and welding
- a) Spool piece weld tests
- b) Dimensional controls
- c) Pre and Post WHT as per SPECIFICATION's requirement
- d) Inspection, NDT and hydrostatic leak test
- e) Field Join Coating
- f) Repair of coatings
- g) Identification marking
- h) Cleaning, flushing, hydrotesting
- i) Drying and closing for protection
- j) Preservation with Nitrogen
- k) Temporary closures, protection and supports

#### 11.6.3 Flange Protections:

The scope of flange protection includes, but not limited to,

- a) Cutting, profiling, and welds preparation
- b) Assembling and welding
- c) Inspection, NDT and dimensional controls
- d) Identification marking
- e) Coating and Corrosion protection as per SPECIFICATION

#### 11.6.4 Protection and Preservation of Linepipes and Associated Materials

Linepipes shall be stored in the conditions to avoid water ingress, and free from long storage in the water which may cause surface deterioration, quality issues and rejected. Proper concrete support shall be provided with stopper. End caps shall be provided with peelable varnish for corrosion protection on both sides of each linepipes and bends. Area where to locate and storage linepipes shall clearly segregate. Preservation report including pipeline condition, quantity, and preservation check list as per above section 11.4.11 shall be submitted for COMPANY review. T&I CONTRACTOR shall develop the preservation procedure to cover T&I CONTRACTOR ITEM as well as COMPANY ITEM for COMPANY APPROVAL.

#### 11.6.5 Load-out of Linepipes and Associated Materials

The T&I CONTRACTOR shall perform loadout, sea fastening in accordance with and subject to AGREEMENT sub-article 19.1.1, this Exhibit A, the SPECIFICATIONS, APPROVED procedures, AFC documents and drawings, the PROJECT Safety Requirements, APPLICABLE LAWS and the other requirements of the CONTRACT.

Prior loading pipeline and associated material, T&I CONTRACTOR shall confirm the provision for load-out and sea fastening documents to be APPROVED by MWS and COMPANY. It is T&I CONTRACTOR scope to provide the provision and installation of all temporary equipment, material and tools for sea fastening on cargo barges. Such sea fastening shall be tested attended by MWS and COMPANY. The T&I CONTRACTOR shall obtain the

APPROVAL from the MWS and COMPANY and the related READY FOR LOAD-OUT CERTIFICATE shall be signed by MWS prior proceed the load-out activity.

Load-out and sea fastening operations for linepipe and associated materials shall include all activities and provision of T&I CONTRACTOR PERSONNEL and resources required and necessary for the preparation, load-out operations and sea fastening including but not limited to:

- a) Linepipes including temporary preservation provision
- b) Equipment which, for any reason, was not incorporated into the PLANT on yard
- c) Any other loose items to be installed on SITE
- d) Related Bulk Material and prefabricated pieces

## **11.7 Fabrication of Optional Scope of WORK**

### **11.7.1 Structural WORK for Deck Extension for Pig Receiver**

T&I CONTRACTOR shall fabricate and erect at the WORKSITES of deck extension required for pig receiver and its facilities. The scope of work shall include:

- a) Materials cutting for deck extension and related appurtenances (floor plate, handrail and the like) profiling and welds preparation
- b) Pre-fabrication, Fabrication and assembling of deck extension and related appurtenances
- c) Abrasive blasting and painting application
- d) Inspection, NDT and dimensional control
- e) Marking
- f) Supply, fabricate and install all applicable and necessary loadout, transportation and installation aids for deck extension

### **11.7.2 Piping, Fabrication and Erection for Pig Receiver**

Piping preparation, sub-assembly prefabrication and erection shall include as applicable:

- a) Spools prefabrication including cutting, profiling, and welding of pipes, fittings and valves and internal cleaning as per the requirement in SPECIFICATION
- b) Water jet cleaning of pipe spool is required before erection
- c) Pickling for stainless steel welded joint
- d) Spool piece weld tests
- e) Pipe support prefabrication including cutting, profiling, welding of supports, pipe guide and I-rod.
- f) Prefabrication of manifolds and other piping sub-assemblies.
- g) Dimensional controls
- h) Fit-up and field joint welding
- i) Preheat and Post Weld Heat Treatment as per SPECIFICATION requirement
- j) Inspection, NDT and line check
- k) Hydrostatic leak tests as per onshore pre-commissioning and commissioning requirement.
- l) Pipe flushing before valve installation to ensure no welding slack, debris, metal contamination remains in the piping and witness by COMPANY
- m) Valves passing (seat) tests at workshop before installation
- n) System service leak tests
- o) Repair of coatings
- p) Re-instatement
- q) Line identification marking and color coding
- r) Temporary closures, strainers

- s) Piping system preservation before sail away

#### 11.7.3 Instrument and Telecommunication for Pig Receiver

- a) Prefabrication and installation support of all instruments and instrument related accessories for pig receiver.
- a) Calibration of instrument items
- b) Hook-up of instruments items
- c) Installation of instrument items including tubing and associated covers
- d) Instrument installation on equipment, including fixing, identifications, termination.
- e) Laying of the instrument, control and safety related cables in instrument cable trays, fastening, cutting to length, ends preparation, fitting and connection.
- f) Glanding, terminating, and marking of all cables
- g) Identification, tagging, labelling of all equipment
- h) Laying of instrument earthing cables, fastening, cutting to length, ends preparation, fitting and connection.
- i) Installation of control and safety systems cabinets as per VENDORS' recommendations.
- j) Installation of packages related control systems cabinets as per VENDORS' recommendations.

For clarity, T&I CONTRACTOR's scope shall be responsible for all onshore construction physical work related with instrumentation work require for pig receiving facilities.

#### 11.7.4 Post-installed riser

Riser preparation, sub-assembly prefabrication and erection shall include as applicable:

- a) Spool prefabrication including cutting, profiling and welding
- b) Spool piece weld tests
- c) Riser support prefabrication including cutting, profiling and welding of supports
- d) Dimensional controls
- e) Preheat and Post Weld Heat Treatment as per SPECIFICATION requirement
- f) Inspection, NDT and hydrostatic leak test
- g) Riser splash zone coating and repair of the coating
- h) Riser joints coating and Repair of coatings
- i) Identification marking
- j) Temporary closures and supports
- k) Installation of the risers on wellhead platform topside and jackets. For jackets, the scope shall include provision and installation of permanent blind flange at both the bottom of riser and the cap on top of riser. Pressure gauge shall be installed at the top of future riser with environmental protection
- l) Hook-up pieces prefabrication and final preparation, including preparation of all items for hook-up

#### 11.7.5 Navigation Aids Platform

Refer to Exhibit A, Annex-11

#### 11.7.6 PLEM or WYE

The general requirement shall refer to Section 11.7.1 and 11.7.2 as applicable.

## 12.0 Transportation and Offshore Installation

### 12.1 General

The T&I CONTRACTOR shall perform marine transportation and offshore Installation using APPROVED MARINE SPREAD in accordance with the requirements of:

- a) AGREEMENT
- b) this Exhibit A
- c) Exhibit H Quality Management
- d) Exhibit K T&I CONTRACTOR's Organization and Resources
- e) Exhibit L Project SSHE requirement
- f) General Marine Instructions for Great Navamindra Field (10009-OLG-WIS-4101),
- g) Marine Operational Safety Guideline, 12007-GDL-SSHE-540/02-001-R1.1
- h) SPECIFICATIONS
- i) Applicable APPROVED T&I CONTRACTOR DOCUMENTS including but not limited to Offshore Execution Plan, related procedures, transportation engineering and procedures and APPROVED AFC (Category C) T&I CONTRACTOR DOCUMENTS
- j) MWS directions and APPROVALs
- k) GOVERNMENT and APPLICABLE LAWS
- l) the other terms and provisions of the CONTRACT

#### 12.1.1 Work Package 1:

T&I CONTRACTOR shall be responsible for transportation and installation of new Wellhead Platform which shall cover from arrangement of transportation barge to EPC CONTRACTOR WORKSITE, towing new Wellhead Platform from EPC CONTRACTOR WORKSITE to SITE and perform offshore installation in accordance with the requirement in the CONTRACT. Transportation of new Wellhead Platform shall be arranged for combined shipment of Topside, Jacket, Piles, Boatlanding and appurtenances as base case. However, T&I CONTRACTOR may require to arrange separate shipment if EPC CONTRACTOR WORKSITE for Topside and Jacket is in different location.

#### 12.1.2 Work Package 2:

T&I CONTRACTOR shall be responsible for transportation and installation of pipeline system including subsea tie-ins at new Wellhead Platform and existing facility which shall cover from arrangement of transportation barge to pipeline coating yard, loadout, towing pipeline and tie-in spools to SITE and perform offshore installation in accordance with the requirement in the CONTRACT.

For Optional scope of WORK, T&I CONTRACTOR shall be responsible for offshore installation of items below,

- Any Subsea structure/Equipment for pipeline system as required e.g. Subsea PLEM/WYE, Pipeline crossing sleepers.
- Post-installed riser, riser protector and its support structure at the existing wellhead platform up to the first weld joint above hanger clamp
- For clarity, this shall except the pre-installed riser and its support structure of new Wellhead Platform that is base scope and include in Work Package 1

#### 12.1.3 Work Package 3: (Optional)

T&I CONTRACTOR shall be responsible for transportation and installation of brownfield modification which shall confirm on a PHASE by PHASE from the issuance of NOTICE TO

PROCEED. The optional scope of WORK shall refer to Section 3.1.3 of this Exhibit. The detail of requirement refer to Section 12.11 of this Exhibit, Annex-14 of Exhibit A and Annex-6 of Exhibit E.

#### 12.1.4 Work Package 4 – Existing Topside Relocation (Optional)

T&I CONTRACTOR shall be responsible for transportation and installation for existing Topside Relocation which shall be included but limited to,

- i) Arrange the transportation barge for combine shipment of New Jacket, piles, boatlanding, appurtenances, Navigation Aids Platform and space for existing Topside
- ii) Transportation to SITE and perform existing Topside Recovery and load on to the transportation barge and secure by sea fastening
- iii) Perform Navigation Aids Platform Installation
- iv) Tow the existing Topside and new Jacket, Piles, boatlanding and appurtenances to new Platform Location
- v) Perform offshore installation for new Jacket, Piles, boatlanding, existing Topside, hook up for platform completion and miscellaneous WORK.

Detailed scope of WORK shall refer to Exhibit A, Annex 11.

#### 12.1.5 Work Package 5 – New FSO pipeline, PLEM and Tie-ins

T&I CONTRACTOR shall be responsible for transportation and offshore installation for new FSO pipeline, PLEM and tie-ins system which shall be included but not limited to; pipeline (pipe in pipe), flexible pipe, coatings, anodes, pigging, hydro testing, new FSO PLEM, subsea tie-in spools (with flange protector) at Central Processing Platform and FSO PLEM side. Detailed scope of WORK refers to Exhibit A, Annex 13.

### 12.2 **Transportation and Installation Project Management**

#### 12.2.1 Offshore Execution Plan

The T&I CONTRACTOR shall prepare and submit a fully developed Offshore Execution Plan no later than one hundred fifty (150) days after the EFFECTIVE DATE for APPROVAL. The Offshore Execution Plan shall, as a minimum describe:

- a) The transportation and installation WORK to be performed, including Transportation and Installation engineering and Offshore Transportation and Installation for the scope of WORK
- b) T&I CONTRACTOR's (and SUBCONTRACTOR) organization for management, transportation and installation engineering, procurement, support and control of Transportation and Installation scope of WORK
- c) Lists and details of all the MARINE SPREAD (KEY VESSELS and other MARINE SPREAD)
- d) First draft of detail offshore WORK schedule included minimum of planned windows for mobilization of MARINE SPREAD for offshore installation.
- e) Work plan of transportation barge for Wellhead Platform
- f) Transportation and Installation resources and time scaled resource plan and histograms (T&I CONTRACTOR and SUBCONTRACTOR PERSONNEL and CONSTRUCTION EQUIPMENT).
- g) Proposed list and scope of work of SUBCONTRACTORS, VENDOR and SUPPLIER and their mobilization/demobilization plan
- h) Lists of deliverables to be prepared by T&I CONTRACTOR for offshore WORK i.e. Engineering calculation, drawing, procedures and plans

- i) Interfaces and interface management.
- j) Quality management plan including the following as minimum:
  - i) Inspection test plan
  - ii) Proposed arrangements for management, implementation, monitoring, control, inspection testing and APPROVAL.
  - iii) Welding Procedure Qualification (WPQ) test plan
  - iv) Zero punch list program
- k) Daily QC Database and progress tracking
- l) Offshore SSHE management plan including plan as per requirement in exhibit L and bridging document as minimum

#### 12.2.2 The T&I CONTRACTOR's Offshore Management Team

The T&I CONTRACTOR shall supply a suitably qualified, experienced and dedicated Offshore Installation Manager and SITE Engineers, Supervisors, SSHE and QA/QC team to prepare offshore procedures and documents as mentioned in this Transportation and Installation scope of work and Exhibit A Annex-1.

T&I CONTRACTOR shall allocate the completed offshore team as listed above on full time basis minimum six (6) months before the target sail away date of the wellhead platform for advance and comprehensive offshore WORK preparation.

#### 12.2.3 Co-ordination

The T&I CONTRACTOR shall give the COMPANY full information on progress of the WORK to allow COMPANY to co-ordinate with others and reduce where feasible reduce conflicts and interference with MARINE SPREADS.

In the event of conflict / interference of activities, the COMPANY shall decide the operational priorities and the order in which and at what times the respective parts of the offshore works shall be performed out and the T&I CONTRACTOR shall immediately comply with such decisions.

#### 12.2.4 Daily Progress Reports (DPR)

The T&I CONTRACTOR shall propose the format and content of the DPR for APPROVAL. DPRs for each MARINE SPREAD vessels shall be prepared and submitted by the T&I CONTRACTOR via the PROJECT EDMS after review and or signature by the COMPANY's SITE Representative.

DPRs (KEY VESSELS) shall be mutually reviewed and discussed in the next daily progress meeting before signature (for record purposes only) by the COMPANY's SITE Representative. DPRs for the other MARINE SPREAD vessels shall be presented to the COMPANY's SITE Representative for review and comment before formal submission via EDMS.

As attachment to DPR for each MARINE SPREAD, T&I CONTRACTOR shall provide a detailed daily WORK plan and three (3) days look ahead plan to the COMPANY.

#### 12.2.5 Offshore Accommodation and Facilities for COMPANY PERSONNEL

The T&I CONTRACTOR shall prepare offshore accommodation and facilities for COMPANY PERSONNEL, as described and in accordance with Exhibit A section 6.6, Exhibit A Annex-7, Exhibit B and the other applicable terms of the CONTRACT.

### 12.2.6 Offshore Accommodation and Facilities for EPC CONTRACTOR

The T&I CONTRACTOR shall prepare offshore accommodation and transportation for one (1) EPC CONTRACTOR PERSONNEL during offshore installation for each installation year.

### 12.2.7 Weather Forecasts

T&I CONTRACTOR shall provide and utilize accurate weather forecasts and reports at SITE for safe installation and comply COMPANY safety regulations and General Marine Instructions throughout the offshore WORK.

## 12.3 **Transportation and Installation engineering**

### 12.3.1 Marine transportation engineering

The T&I CONTRACTOR shall perform all required and necessary marine transportation engineering in accordance with SPECIFICATIONS, coordinate with EPC CONTRACTOR to gather the necessary information for T&I WORK and the other terms and provisions of the CONTRACT, including but not limited to:

- a) Design environmental criteria
- b) Barge equipment layout and PLANT components layouts on the barges (stowage plan) including orientation and marking.
- c) Voyage study including environmental data for transportation analysis (fatigue data is required for long towing) and security concerns
- d) Barge/vessel stability/motion
- e) Loads under transportation
- f) Motion response criteria, study and combinations
- g) Barge strength, stiffening, grillage, launch and skidways (both global and local strength)
- h) Sea fastening Design tow resistance
- i) Ballasting plan
- j) Bollard pull calculation
- k) Voyage protection
- l) Tow arrangements
  - i) Weather forecasts and weather routing
  - ii) Towage routes
  - iii) Tow winches
  - iv) Towing Wires / synthetic ropes
  - v) Barge tow connections
  - vi) Fairleads
  - vii) Tow bridle
  - viii) Intermediate tow pennant
  - ix) Shackles
  - x) Barge bridle recovery arrangements
  - xi) Barge emergency tow arrangement
  - xii) Manning requirements
- m) Transportation MARINE SPREAD List and arrangement for each shipment including CONSTRUCTION EQUIPMENT and SUBCONTRACTOR for installations
- n) Procedures
- o) Anything else required and or necessary not stated above.

The T&I CONTRACTOR shall submit the transportation engineering and procedures for COMPANY and MWS REVIEW and APPROVAL.

All Offshore procedures and documents, including method statements, job cards, HAZID, JSA, etc., shall be completed and APPROVED by COMPANY sixty (60) days before the target sail away date of the wellhead platform.

#### 12.3.2 Wellhead Platform Installation Engineering

The T&I CONTRACTOR shall prepare installation engineering for all wellhead platform installation WORKS and develop installation methods/sequences for all activities. Installation Engineering shall include, but not limited to the following scopes:

- a) Preparation of Pre-Installation underwater survey of the wellhead PLATFORM locations.
- b) Design for pre-rigging the PLANT at the WORKSITES. Design drawings shall be reviewed and verified by EPC CONTRACTOR and APPROVED by COMPANY and MWS prior to start of the pre-rigging operation.
- c) Calculation notes, analyses and study as required for all installation operations including;
  - i) Installation design criteria
  - ii) floatation, ballasting, upending and levelling of jacket,
  - iii) Jacket on-bottom stability and mudmat design
  - iv) Pile upending tools,
  - v) Pile handling, self-penetration, pile driving, , and pile refusal.
  - vi) Levelling analysis based on gripping sequences
  - vii) Motion analysis for critical lifting (Factored lift weight is more than eighty percent (80%) of crane load chart certified by CA)
  - viii) Rigging calculation
  - ix) Installation aids
  - x) Mooring calculations/analysis
  - xi) Layout plans on marine vessels of PLANT and equipment for installation
  - xii) Pile static capacity check and evaluation in installing condition will be carried out with the software CAPWAP.
- d) Preparation of installation procedures, and drawings for all installation operations including weather criteria for the critical activity
- e) Preparation of barge layout plans, anchor plans, designs and procedures required for lifting and installation of the Wellhead Platform for APPROVAL.
- f) Limited Environmental data and weather reports
- g) Operational (Installation) Check List
- h) NDT procedures
- i) QA/QC documents

The T&I CONTRACTOR shall submit the Installation engineering and procedures for COMPANY and MWS review and APPROVAL.

All Offshore procedures and documents, including method statements, job cards, HAZID, JSA, etc., shall be completed and APPROVED by COMPANY three (3) months before the target sail away date of the 1st wellhead platform.

##### 12.3.2.1 Wellhead Platform Installation aid design



The T&I CONTRACTOR shall perform engineering design and drawing of all installation aids including

- All floatation devices e.g. buoyancy tank, flooding system, rubber diaphragm, additional buoy (if required)
- Any installation aid structure which is not part of permanent structure nor platform rigging structure

### 12.3.3 Pipeline Installation Engineering

The T&I CONTRACTOR shall be responsible for the preparation of installation drawings, detailed procedures for surveys, seabed preparation, permanent protection, assembling and laying of pipelines, connecting pipeline to riser with subsea tie-in spools, remedial work, span reduction, tests, QA/QC including calculations and any other document necessary for the performance of the WORK in accordance with the CONTRACT.

Pipeline Installation Engineering shall include, but not limited to the following calculations:

- a) Materials load-out, transportation and sea-fastening (linepipes, prefabricated Sections of the subsea tie-in spools)
- b) Pipeline laying including start-up and lay down
- c) Pipeline lifting and lowering for abandonment and recovery (through stinger)
- d) Pipeline lifting and lowering for pipe repair alongside the barge/vessel (with davits)
- e) Pipeline lateral pulling
- f) Supports, Subsea tie-in spools, lifting and installation
- g) Mooring analysis
- h) Seabed preparation/intervention

The procedures for pipeline installation shall include engineering analyses sufficient to document the pipeline, stinger and lay vessel configuration, and abandonment and recovery including both static and dynamic load effects, installation fatigue. The design shall also consider all possible critical locations such as crossings, fault, scarp, and area near existing facility. Drawings of stinger, pipeline, roller and lay vessel configuration shall be incorporated in the procedures.

The procedures shall identify the sea state severity at which pipeline laying should cease and the sea state severity at which abandonment operations should be initiated. Sea state conditions used shall reflect anticipated conditions for the installation period. The installation procedure shall also cover anchoring of the laying barge, including documentation of adequate anchor holding power along the pipeline route and anchor patterns.

The procedures for tie-in spool, etc. shall be necessary for transportation, lifting, metrology, on-bottom stability, positioning such items on the seabed at the design location, levelling, and orientation.

The T&I CONTRACTOR shall prepare repair procedures for corrective actions covering all foreseeable types of damage which may occur during pipeline laying including line pipe repair, coating repair, dry buckle or wet buckle repair and repair of leaks discovered during pressure tests.

T&I CONTRACTOR shall also be responsible for the preparation of the Pre-installation underwater survey of pipeline corridors.

All Offshore procedures and documents, including method statements, job cards, HAZID, HIRA, JSA, etc., shall be completed and APPROVED by COMPANY three (3) months before the target date of the 1st pipelaying.

12.3.4 Post Installed riser Installation Engineering (Optional Scope)

The T&I CONTRACTOR shall be responsible for the preparation of installation drawings, detailed procedures and any other document necessary for the performance of the WORK in accordance with the CONTRACT for post installed riser, riser clamps and riser protector. T&I CONTRACTOR shall refer to Exhibit E, Annex 10 for more detailed of post installed riser as the basis for T&I CONTRACTOR proposal.

12.3.5 PLEM and WYE Installation Engineering (Optional Scope)

The T&I CONTRACTOR shall be responsible for the preparation of installation drawings, detailed procedures and any other document necessary for the performance of the WORK in accordance with the CONTRACT for PLEM and WYE. T&I CONTRACTOR shall refer to Exhibit E, Annex 10 for more detailed of PLEM and WYE as the basis for T&I CONTRACTOR proposal.

12.3.6 Existing Topside Brownfield Modification Installation Engineering (Optional Scope)

The T&I CONTRACTOR shall be responsible for the preparation of installation drawings, detailed procedures and any other document necessary for the performance of the WORK in accordance with the CONTRACT for brownfield modification base on detailed engineering package from EPC CONTRACTOR. T&I CONTRACTOR shall refer to Exhibit E, Annex 6 for more detailed of each brownfield modification option as the basis for T&I CONTRACTOR proposal.

12.3.7 Topside Relocation Installation Engineering (Optional Scope)

The T&I CONTRACTOR shall be responsible for the preparation of installation drawings, detailed procedures and any other document necessary for the performance of the WORK in accordance with the CONTRACT for new Jacket, Piles, Topside Relocation and Navigation Aid Platform. T&I CONTRACTOR shall refer to Work Package 1, Exhibit A, Annex 11 and Exhibit E, Annex 11 for more detailed of Topside Relocation as the basis for T&I CONTRACTOR proposal.

12.3.8 New FSO Pipeline, PLEM and Tie-ins Installation Engineering

The T&I CONTRACTOR shall refer to the general requirement in Section 12.3.3. For the particular requirement and detailed shall refer to Exhibit A, Annex – 13, T&I CONTRACTOR shall perform and provide drawings, procedure, calculation and other document necessary for the performance of the WORK shall include but not limit to:

- FSO Pipe-in-pipe installation
- PLEM installation
- Tie-ins between pipe-in-pipe and PLEM
- Tie-ins between pipe-in-pipe and riser at PLCPP by flexible spool

**12.4 MARINE SPREAD**

T&I CONTRACTOR shall provide the MARINE SPREAD to complete scope of WORK in compliance with requirement in this Exhibit A section 12, Marine Operational safety Guideline (12007-GDL-SSHE-540/02-001), General Marine Instructions for Great Navamindra Field (10009-OLG-WIS-4101), APPLICABLE LAWS , Exhibit K and the other terms and provision of CONTRACT.

12.4.1 Readiness of MARINE SPREAD

The T&I CONTRACTOR shall provide fully manned and fully equipped MARINE SPREADS, complete with CONSTRUCTION EQUIPMENT, fuels, greases, lubricant, consumables, spare parts, and with operation, marine, construction and maintenance crews, and anything else required or necessary for the safe, correct and timely performance of the load-out, sea fastening, transportation, SITE installation and brownfield WORKS in accordance with and subject to the terms of the CONTRACT and APPLICABLE LAWS.

The T&I CONTRACTOR shall ensure that before commencing individual marine operations each related MARINE SPREAD are fully in compliance with the load-out, transportation and installation engineering requirements, has undergone and successfully completed OVID inspection, project suitability surveys, DP assurance audit, etc. by MWS and is in compliance with the requirements of the CONTRACT and APPLICABLE LAWS. For clarity APPROVAL of the above audit, inspection and survey by either MWS and COMPANY so not release T&I CONTRACTOR Responsibility to rectify any non-compliance fault, defect or finding which is found later under T&I CONTRACTOR account.

The T&I CONTRACTOR shall also ensure to arrange the Transportation Spread for Wellhead Platform in accordance with the requirement in Section 11.5.12.

#### 12.4.2 MARINE SPREAD Mobilization Manual

The T&I CONTRACTOR shall compile a MARINE SPREAD Mobilization Manual and submit for APPROVAL no later than thirty (30) days before Approved Mobilization Date.

The MARINE SPREAD Mobilization Manual shall include as a minimum;

- a) Detailed technical documentation on all major CONSTRUCTION EQUIPMENT to be used for installation WORK.
- b) Certificates of all lifting and installation equipment shall include slings, shackles, winch, NDT etc.
- c) Vessels/Barge certificates, including the certification of internal reinforcement by the Classification Society of the vessel, as applicable.
- d) Spread inspection reports, including, but not limited to, the OVID inspection report and project suitability survey report, DP assurance audit report, DP mobilization trials report.
- e) Inspection and test procedures for items of marine equipment with SPECIFICATION, spare parts list etc.
- f) MGO Plan including, but not limited to, bunkering plan, utilization plan, MGO procurement strategy, etc.
- g) Agreement and authorizations of the relevant authorities consistent with local requirements and international maritime practices.
- h) Any other relevant information.

#### 12.4.3 Tests, Inspection and Suitability Surveys

The T&I CONTRACTOR shall perform all required and necessary tests and inspections of MARINE SPREAD and associated CONSTRUCTION EQUIPMENT in accordance with requirement in this Exhibit A section 12, Marine Operational safety Guideline (12007-GDL-SSHE-540/02-001), General Marine Instructions for Great Navamindra Field (10009-OLG-WIS-4101) , APPLICABLE LAWS, Exhibit K section 1.0 , and the other terms and provision of CONTRACT.

Main pieces of equipment shall be tested (including function test and load testing) and inspected and certified not more than ninety (90) days prior the Approved Mobilization Date. Such equipment shall include, but not limited to, as applicable:

- a) Mooring winches, mooring line, rigging gear , line out meters and tension meters
- b) Dynamic Positioning system
- c) Survey and Positioning equipment and calibration
- d) Communication equipment
- e) Diving equipment
- f) ROV equipment
- g) Welding and NDT equipment
- h) Primary lifting crane and davits
- i) Tensioners
- j) A&R winch
- k) Ramp/Stinger/Buckle detector load cells and TV camera
- l) Ballasting pumps
- m) Pile driving and monitoring equipment
- n) Levelling facilities
- o) Safety equipment

Loading test of main crane of installation KEY VESSELS can be exempted subject to MWS APPROVAL with condition that earlier load test report shall be available for verification, and validation of class certificates shall valid and cover period of installation campaign.

Each MARINE SPREAD shall be inspected by MWS and COMPANY as applicable. The T&I CONTRACTOR shall co-operate fully with these parties for inspection activities and provide all required access and facilities. T&I CONTRACTOR shall plan the MARINE SPREAD inspection campaign as batch by batch and issue plan to COMPANY for approval. Audit shall include, but not limited to, OVID inspection, project and SSHE Vessel Suitability Audit, DP assurance audit, etc. in compliance with MWS and COMPANY SPECIFICATION and requirements, subject to and in accordance with the CONTRACT. In case T&I CONTRACTOR propose to change the MARINE SPREAD after the parties performing inspection, any cost or expenses of COMPANY for the additional inspection shall be responsible by T&I CONTRACTOR.

To minimize adverse findings from the inspection, the T&I CONTRACTOR shall perform pre-inspection to ensure that all MARINE SPREAD and associated CONSTRUCTION EQUIPMENT is fully in accordance with requirements before notifying the COMPANY and MWS of ready for inspection / survey. The T&I CONTRACTOR shall notify the COMPANY in writing of the inspection date(s) no later than the planned date for inspection.

If, after performing such inspection load test and function tests, that MARINE SPREAD and associated CONSTRUCTION EQUIPMENT is assigned to perform the other T&I CONTRACTOR's work. T&I CONTRACTOR may be required to repeat equipment inspection, load & function tests prior to commencing Work subject to COMPANY APPROVAL. Any Cost and expenses of COMPANY from additional inspection shall be responsible by T&I CONTRACTOR. Any delay and/or impact of MARINE SPREAD and the performance of the WORK from the T&I CONTRACTOR default shall be at the T&I CONTRACTOR's own cost and expense.

#### 12.4.4 APPROVAL of MARINE SPREAD to Perform the WORK.

All inspection and survey findings requiring T&I CONTRACTOR action shall be rectified prior to mobilization of MARINE SPREAD to SITE. The T&I CONTRACTOR shall prepare a register of such items, update on a weekly basis and submit to the COMPANY for REVIEW.

After MARINE SPREAD mobilize to SITE at approved area, T&I CONTRACTOR shall perform a mooring or DP positioning trial followed by a survey positioning calibration trial to verify the function and holding abilities of the installation spread mooring /positioning, survey transition fix and survey systems in accordance with Company approved procedure.

If T&I CONTRACTOR fails to close all the above-mentioned inspection and survey findings items before mobilization to the SITE, and mitigation plan has not been APPROVED, the COMPANY reserve its right to not issue the SSHE Commencement Certificate which compliance to COMPANY SSHE Contractor Management Procedure. Any delay and/or impact of MARINE SPREAD and the performance of the WORK from the T&I CONTRACTOR default shall be at the T&I CONTRACTOR's own cost and expense.

#### 12.4.5 Mobilization

The mobilization shall include but is not limited to:

- a) Provision, mobilization and movement of all MARINE SPREADS, PLANT and associated CONSTRUCTION EQUIPMENT required for the RESULT OF THE WORK, including but not limited to spare hammers, from the port(s) of mobilization to the WORKSITES. End of Mobilization is when the MARINE SPREAD, PLANT and associated CONSTRUCTION EQUIPMENT required for the RESULT OF THE WORK are on SITE and fully ready to commence the WORK with the COMPANY's APPROVAL
- b) Mobilization and preparation as necessary for the performance of installation WORK, in particular internal reinforcement of barges (if necessary) and/or adaptation for load-out/launching with certification by the Classification Authority of the barges(s).
- c) All stand-by, movements and operation of MARINE SPREADS prior to departure from the port(s) of mobilization and at the port(s) of demobilization.
- d) Provision, mobilization and movements of tugs, transportation cargo barges, crew boat and supply boats for transportation between WORKSITES and SITE (including all necessary moorings and standby up to complete off-loading, and all intermediate transportation and/or movements anywhere up to the state of readiness to commence SITE installation).
- e) Movement of the MARINE SPREADS on and between the SITE locations as necessary for setting up safely in place, ready to commence the WORK, including mooring and protection of existing facilities in areas exposed to anchors and anchor wires of vessels.
- f) Weather standby, evacuation due to TRS and operational down time which shall be subject to compensation in accordance with and is described in Exhibit B.
- g) Preparation and issue of all manifests, insurance documents, on-hire and off-hire reports, requests for Vessel Entry APPROVAL to enter the Kingdom of Thailand, SITE vessel entry permits, CIQ, daily progress reports and all required and necessary T&I CONTRACTOR DOCUMENTS for and in connection with MARINE SPREAD.

The T&I CONTRACTOR shall afford the COMPANY the opportunity to witness and monitor mobilization preparations for the MARINE SPREAD in port and during voyage to SITE.

The T&I CONTRACTOR shall update the planned mobilization window to COMPANY as specified in Exhibit C prior to commencement of installation WORKS and submit to the COMPANY for REVIEW.

The T&I CONTRACTOR shall coordinate with the COMPANY and with any third party activities. If T&I CONTRACTOR's MARINE SPREAD will interact with third party operations or facilities, the T&I CONTRACTOR shall also appraise said third party of the mobilization window.

COMPANY PERSONNEL will mobilize onto MARINE SPREAD upon its arrival at the Gulf of Thailand. T&I CONTRACTOR shall be responsibility to assist COMPANY PERSONNEL from designated port to onboard the MARINE SPREAD.

#### 12.4.6 Anchoring, Berthing and Mooring

Anchoring berthing mooring and access to restricted areas shall be in accordance with and subject to the requirements of General Marine Instructions for Great Navamindra Field (10009-OLG-WIS-4101) and the other applicable terms of the CONTRACT including but not limited to:

- a) Mooring analysis
- b) Handling procedures for anchors
- c) Procedures for berthing alongside or mooring to offshore structures
- d) Standby moorings
- e) Position fixing equipment
- f) Range finding equipment
- g) Procedures at moorings
- h) Control of mooring tensions

The T&I CONTRACTOR shall prepare and submit all required and necessary full developed documents, drawings, calculation procedures and plans for APPROVAL.

Before considering an Installation barge as safely moored, all anchors shall be performed Tension Test which has previously been approved by COMPANY's Marine Control. The anchors must be proved to the agreed tension test at the designated standoff position as indicated on the Approved anchor pattern.

The T&I CONTRACTOR shall notify the COMPANY SITE REPRESENTATIVE at least seven (7) days in advance whereas the COMPANY SITE REPRESENTATIVE may select to witness such anchor Tension Test.

When T&I CONTRACTOR is allowed to move alongside for the installation activities, the Installation barge, subject to permissions, will be moved to a position approximately 30 meters away from the installation location. In this position, anchors must be proved to the agreed tension test in order to minimize the "bow" created in the line when the unit moves over a significant distance.

This will further reduce the risk of any bights of loose wire lying on the sea-bed, which could subsequently cause loss of tension on a line with resultant excursion of the unit.

The T&I CONTRACTOR shall install covering materials as temporary protection for existing facilities in areas exposed to anchor wires of construction vessels. Such temporary protection shall be removed by T&I CONTRACTOR when necessary for the achievement of the WORK, and at the latest when cleaning the SITE.

The T&I CONTRACTOR shall plan anchor patterns in coordination with the wellhead platform and pipeline installation, brownfield modifications and other field operators' requirements. All anchor plans and tests shall be subject to APPROVAL.

#### 12.4.7 Mobilization of T&I CONTRACTOR Offshore PERSONNEL to the SITE

The T&I CONTRACTOR shall prepare and submit a Dossier to demonstrate that all T&I CONTRACTOR offshore PERSONAL (i.e. construction crews, marine crews etc.) have valid required documents for offshore working in the Thailand under Thailand Regulation.

The T&I CONTRACTOR shall prepare and maintain a register of details of T&I CONTRACTOR offshore PERSONAL and shall load the details into PTTEP Safety & Health Verification (SHV) database (<https://shv.pttep.com/>) before mobilization.

- a) The requirements of Fitness to Work Guideline (11003-GDL-SSHE-561-005 Rev.01) shall apply for all T&I CONTRACTOR offshore PERSONNEL, this shall include but is not limited to: PTTEP Medical Examination Check List (Offshore)
- b) PTTEP Approved Doctor (PAD) / Hospital
- c) PTTEP Offshore Medical Fitness Certificate

The T&I CONTRACTOR shall also comply with the requirements of Exhibit L and the other applicable terms of the CONTRACT.

#### 12.4.8 Survey and Positioning

The T&I CONTRACTOR shall provide, maintain, calibrate and operate a suitable APPROVED positioning system with a minimum of two reference stations ensuring the installation and positioning of the RESULTS OF THE WORK and the PLANT with the required accuracy detailed in APPROVED T&I CONTRACTOR DOCUMENTS and SPECIFICATIONS.

The T&I CONTRACTOR shall propose the location of reference stations and frequencies no later than ninety (90) days before commencing the offshore installation WORK for APPROVAL.

The T&I CONTRACTOR shall obtain and use the latest issue of necessary charts, nautical aids navigational warnings and signs, etc. required to properly perform the WORK.

The positioning system shall continuously monitor the geographic position, orientation and levels of the RESULTS OF THE WORK and the PLANT throughout installation. It shall also provide on the installation vessel a continuous, real-time graphic display of positions, orientation and levels necessary for the performance of the WORK.

#### 12.4.9 Demobilization of MARINE SPREAD

Demobilization of the MARINE SPREADS shall commence when the vessel leaves the SITE en-route to the port of demobilization and shall include the movement of the MARINE SPREADS from the SITE to the port of demobilization. Demobilization shall be considered completed when the vessel berths at the port of demobilization

- a) Demobilization of MARINE SPREADS and associated CONSTRUCTION EQUIPMENT from the WORKSITES to the port(s) of demobilization and the correct disposal of debris, wreckage and surplus, waste and scrap, T&I CONTRACTOR ITEMS and if applicable COMPANY ITEMS. Demobilization starts when the MARINE SPREADS is completed the WORKS and depart from SITE.

- b) Request for MARINE SPREADS RELEASE CERTIFICATES upon completion of the respective offshore WORK and cleaning by T&I CONTRACTOR of all SITE areas where T&I CONTRACTOR has performed the WORK.
- c) T&I CONTRACTOR shall demobilize the MARINE SPREADS from the SITE upon the completion of the WORK or termination or extinguishment of CONTRACT.
- d) Making the transportation MARINE SPREADS free for other work.

Up on the MARINE SPREAD towing to the border of the SITE, T&I CONTRACTOR shall arrange transportation to either Living Quarter Platform or designated port in Songkhla which will be confirmed by COMPANY.

#### 12.4.10 MARINE SPREAD RELEASE CERTIFICATES

Demobilization of the MARINE SPREAD from the SITE shall be subject to APPROVAL in the form of a MARINE SPREAD RELEASE CERTIFICATE signed by COMPANY SITE REPRESENTATIVE.

The T&I CONTRACTOR shall not demobilize any vessel of the MARINE SPREAD until in possession a valid MARINE SPREAD RELEASE CERTIFICATE.

#### 12.4.11 On-hire and Off-hire Reports

The T&I CONTRACTOR shall use the services of qualified and experienced marine surveyor to prepare On-hire and Off-hire Survey Reports for each MARINE SPREAD and shall submit to the COMPANY for REVIEW. The T&I CONTRACTOR shall propose the marine surveyor and the pro-forma survey report formats for APPROVAL, no later than thirty (30) days before conducting the first on-hire survey. The on-hire and off-hire reports shall be in accordance with or equal to the requirements of SS 600 Singapore Standard Code of Practice for Bunkering.

### 12.5 **Marine transportation**

#### 12.5.1 APPROVAL to Sail Away

T&I CONTRACTOR shall provide all MARINE SPREADS and CONSTRUCTION EQUIPMENT required for all transportation and installation of the PLANT.

Each MARINE SPREAD shall consist as a minimum of all vessels and equipment necessary for the successful and safe performance of the WORK for which it is intended and shall be in accordance with the requirements of General Marine Instructions for Great Navamindra Field (10009-OLG-WIS-4101).

T&I CONTRACTOR shall ensure that the MARINE SPREADS are fully in compliance with CONTRACT requirements prior to delivery to the loadout quay including in particular that the decks are clear of obstructions ready for installation of barge grillage steelwork and that any required internal reinforcement is complete.

Sail away is to commence only when achieving of READY FOR TRANSPORTATION CERTIFICATE(S) prior to proceed transportation activity.

#### 12.5.2 Tow Reporting

Each day during the tow to and from the SITE, the T&I CONTRACTOR shall prepare and submit a Daily Progress Report (DPR) for each vessel of the MARINE SPREAD in



accordance with the requirements of 10008-STD-6-OSS-016-R00 and 10008-STD-6-PLR-030-R00 for REVIEW.

## **12.6 Mobilization to the SITE**

### **12.6.1 Technical and Readiness Review**

The T&I CONTRACTOR shall convene a Technical and Readiness Review Meeting no later than sixty (60) days before the planned first mobilization of the heavy lift, pipeline and brownfield MARINE SPREAD to review is to verify readiness for new wellhead platforms, pipelines, brownfield modifications and tie-ins WORK.

The agenda for the technical and readiness review shall include but is not limited to:

- a) To review the mobilization manual
- b) To review the construction manual and ensure that latest revisions of specifications, procedures and drawings are included.
- c) To ensure that required MARINE SPREADS are available in due time and comply with requirements.
- d) To verify and ensure that MARINE SPREAD and other CONSTRUCTION EQUIPMENT is complete and complies with requirements and safety regulations.
- e) To ensure that the maintenance routines and safety verifications are applied to CONSTRUCTION EQUIPMENT during execution of the WORK.
- f) SSHE MS, applicable SSHE requirements and
- g) To ensure that APPROVED mooring patterns and procedures will be implemented by the T&I CONTRACTOR.
- h) To ensure effective SSHE and risk management including SIMOPS control.

### **12.6.2 SSHE Offshore SITE Commencement and Offshore SITE Restoration Certificates**

#### **12.6.2.1 SSHE SITE Commencement Certificates**

Before commencement of WORK at an Offshore Site a pre-commencement SSHE review meeting shall be held to be attended by COMPANY and T&I CONTRACTOR PERSONNEL.

The purpose of the pre-commencement SSHE review is to verify compliance with SSHE Requirements including but not limited to CONSTRUCTION EQUIPMENT, VESSEL EQUIPMENT, PERSONNEL, training, tools, inspection/certificates, medical check-up report, Kick off meeting at SITE, SSHE introduction etc., as per the APPROVED SSHE Execution Plan and the other applicable terms of the CONTRACT.

The results of the SSHE review shall be recorded in the SSHE SITE Commence Certificate which shall be issued by the COMPANY. The T&I CONTRACTOR shall implement any corrective action items in a timely manner. The rights and obligations of the PARTIES with regard to SSHE Commencement Certificates shall be as stated in Exhibit L.

#### **12.6.2.2 SSHE Restoration Certificate for Offshore SITE**

Upon completion of WORK at an offshore SITE a SSHE Review meeting shall be held, attended by COMPANY and T&I CONTRACTOR PERSONNEL to verify that demobilization and site restoration are complete and satisfy all requirements. Whereupon the COMPANY will issue a SSHE Restoration Certificate. The rights and obligations of the PARTIES with regard to SSHE Restoration Certificates shall be as stated in Exhibit L.

## 12.7 New Wellhead Platform Installation

### 12.7.1 Platform Installation

The T&I CONTRACTOR shall install the structures in accordance with procedures and AFC T&I CONTRACTOR DOCUMENTS and in accordance with COMPANY and MWS APPROVALS.

Platform installation shall include, but not be limited to, the following:

- a) Preparation, including acquisition and updating, of all certificates, permits and other APPROVAL documents as requested by the COMPANY and MWS. All such documents shall be valid throughout the duration of the WORK.
- b) Pre-Installation Surveys
- c) Removal of wreckage, debris and obstructions (if applicable)
- d) Protection of any existing COMPANY assets in the immediate vicinity of the SITE.
- e) Removal of sea-fastening, T&I CONTRACTOR shall cut the sea-fastening as per the approved cut-off lines marking.
- f) MWS shall issue a Certificate of APPROVAL to T&I CONTRACTOR to start removal of sea-fastenings which shall be submitted to COMPANY for review.
- g) Return all sea fastening back to EPC CONTRACTOR fabrication yard. T&I CONTRACTOR shall return all sea fastening elements back in good condition for re-use in further WHP loadouts
- h) MARINE SPREAD testing before entering to 500m. safety zone i.e. anchor holding test, DP trial, and etc.
- i) Installation of the structures, material, equipment and other items of WORK including appurtenances complete with shipped loose items.
- j) Jacket installation:
  - i) Jacket Lifting and Floation
  - ii) Jacket upending
  - iii) Provision of buoyancy tanks as part of installation aids
  - iv) Jacket positioning
  - v) Removal of riggings, buoyancy tanks, etc. (if any)
- k) Piles installation:
  - i) Pile stabbing
  - ii) Drive piles to target penetration
  - iii) Pile restrike test pile driving, monitoring (initial restrike test)
  - iv) Re-strike of one piles per jacket
  - v) Continuous monitoring of two (2) piling operations per platform from start to end of penetration,
  - vi) Pile monitoring
  - vii) Hammer monitoring
- l) Levelling jacket by levelling tools.
- m) Perform MSL determination by tidal measurement and define cut-off level
- n) Top of jacket cutting.
- o) Installation of appurtenances, including boat landing structure.
- p) Top of jacket level surveys and necessary corrections.
- q) Topside installation:
  - i) Topside Lifting
  - ii) Welding and NDT
  - iii) Field joint coating/ painting / Repairs

- iv) Hook up works e.g. Riser hook up, Stair way installation, Topside padeye removal/ closure
- v) Ship loose installation (safety equipment, etc.)
- vi) Install and adjust the length of swing ropes
- vii) Energize solar power system and activate navigation aids lighting
- r) Rectification of all damage occurring during the WORK execution, including touch-up of surface preparation and painting in accordance with the SPECIFICATIONS.
- s) Removal of all rigging tools, temporary installation aids, access the PLATFORM, equipment and any scrap material after the completion of installation WORK.
- t) Clean-up, jacket and seabed and casing guide survey and removal of debris, if required, prior to demobilization.
- u) Post-Installation Surveys
- v) Preparation of all completion documentation and as-built dossier.

After completed new Wellhead Platform installation, T&I CONTRACTOR shall support Telecommunication and/or SCADA VENDORS for the accommodation and crew boat for the offshore pre-commissioning/commissioning for such system.

#### 12.7.2 Installation SITE Surveys for Wellhead Platform

##### 12.7.2.1 Pre-installation SITE Surveys

The T&I CONTRACTOR shall conduct a survey of the structures upon arrival at the SITE and shall rectify as necessary damage sustained during transportation. The survey report shall be APPROVED by COMPANY prior commencement of the sea fastening removal.

The T&I CONTRACTOR shall perform wellhead platform's Pre-installation SITE Survey for a minimum of one hundred (100) meters radius from the designed center position of the new Wellhead Platform and for tie-in spools prior to installation activity as per 10008-STD-6-OSS-016-R00 (Load-out, Transportation and Installation of Offshore Structures) and 10008-STD-6-PLR-022-R00 (Fabrication, Transportation and Installation of Risers, Spool Pieces and Associated Structural Items).

SITE Pre-installation Survey shall be performed by ROV and/or divers to verify seabed topography and to ensure no wreckage, debris and/or obstructions are in the planned jacket setting location or would interfere with the installation activities.

The T&I CONTRACTOR shall identify any constraints to installation present on the SITE and shall propose remedial action for APPROVAL prior to implementation.

##### 12.7.2.2 Post-installation SITE Surveys

The T&I CONTRACTOR shall perform wellhead platform's Post-installation SITE Survey in accordance with:

- a) 10008-STD-6-OSS-016-R00 (Load-out, Transportation and Installation of Offshore Structures) i.e. Platform positioning, Platform orientation, Platform elevation, video surveys on completion of the WORK including but not limited to seabed survey, anodes, jacket frame including inside casing guide, etc. and to verify that no wreckage, debris and/or obstructions are remaining from the T&I CONTRACTOR's operations.
- b) 10008-STD-6-PLR-022-R00 (Fabrication, Transportation and Installation of Risers, Spool Pieces and Associated Structural Items). to verify that the tie-in spools have been installed in accordance with the APPROVED T&I CONTRACTOR Technical Documents and the other terms and requirements of the CONTRACT.

Post-installation SITE Survey shall be for a minimum of one hundred (100) meters radius from the designed center position of the new Wellhead Platform and fifty (50) meters both sides along the route of the tie-in spools. Non-identified wreckage, debris and obstructions reported during pre-installation survey that found during post-installed survey shall be deemed caused by T&I CONTRACTOR activities and hence shall be removed from SITE by T&I CONTRACTOR at his own account.

#### 12.7.3 Offshore Preservation

The T&I CONTRACTOR shall check the preservation conditions at SITE after transportation and installation WORK completion, including cleaning, maintenance and preservation of all parts of the PLANT as required by the SPECIFICATIONS, VENDORS or SUPPLIER's Manuals and recommendation. Defects shall be identified and rectified by the T&I CONTRACTOR.

### **12.8 Pipeline Installation**

#### 12.8.1 Pipeline Installation Surveys

##### 12.8.1.1 Pre-installation Survey

Prior commencing the pipeline installation, The T&I CONTRACTOR shall perform a pre-installation survey with side scan sonar system in accordance with the applicable Specification. The survey area shall be a minimum of fifty (50) meters each side of the planned pipeline route.

During the performance of pre-installation surveys the T&I CONTRACTOR shall identify the position of wreckage, debris and obstructions, (if any), in the vicinity of the proposed pipeline installation activities and shall propose remedial action to the COMPANY for instruction prior to removal of the debris and/or obstructions by the T&I CONTRACTOR.

If the wreckage, debris and obstructions are not caused by the T&I CONTRACTOR then the T&I CONTRACTOR shall be compensated for the removal of wreckage, debris and obstructions instructed by the COMPANY in the manner described in Exhibit B.

This survey shall also identify and locate the existing facilities, pipelines and subsea structures in the pipeline laying area and the MARINE SPREAD anchoring area.

The T&I CONTRACTOR shall prepare and issue any documents required by the COMPANY for supervision of this survey.

##### 12.8.1.2 Pre-Flooding Surveys

After pipeline laying of each particular pipeline, pre-flooding surveys shall be performed by side scan sonar (as minimum). This is to ensure / determine whether the seabed intervention is required before flooding and hydrotesting. If any pipeline free span exceeds the acceptance criteria for pipeline flooding, pre-flooding rectification shall be commenced as per Section 12.8.6.2.

##### 12.8.1.3 As-Built Survey (Optional)

COMPANY may instruct T&I CONTRACTOR to perform As-Built Survey as optional scope with the following requirement.

As-built surveys shall be performed after all subsea tie-ins and hydrostatic tests have completed on each pipeline system generally.

As-built Survey shall include but not be limited to, the following activities;

- a) Performance of survey of pipeline, tie-in spools, free spans, free spans supports, protections, field joints and tie-in points. All pipeline length to be video surveyed, including anodes, field joints (with identification) and free spans correcting arrangement
- b) Performance of survey of cathodic protection reading along pipeline at every anode and flanges
- c) Verification that no wreckage, debris and/or obstructions are remaining from the T&I CONTRACTOR's operations
- d) Preparation and issue of marked-up drawings and survey report
- e) Identification/location of all installation debris and temporary aids to be removed from SITE by T&I CONTRACTOR before demobilization of MARINE SPREAD off the SITE

Immediately after completion of the Installation and Pre-commissioning WORK, T&I CONTRACTOR shall issue and hand over to COMPANY REPRESENTATIVE the as-installed report including as a minimum:

- a) Summary of WORK performed
- b) APPROVED deviations from SPECIFICATION and/or T&I CONTRACTOR Procedures
- c) Sea lines welding book
- d) Laying report
- e) Sub-sea photographs of pipeline, tie-in spools, connections to risers and free span reductions
- f) Video survey records
- g) Platform, pipelines coordinates, elevation and necessary information
- h) Test Reports

Non-identified wreckage, debris and obstructions reported during pre-installation survey that found during post-installed survey shall deem causing by T&I CONTRACTOR activities and hence shall be removed from SITE by T&I CONTRACTOR at his own account.

In case, pipeline as-built survey is not performed by T&I CONTRACTOR, T&I CONTRACTOR shall record the final condition of the entire route of pipeline before demobilization by side-scan sonar. Pipeline as-laid condition report shall be issued to record the overall condition of pipeline such as pipeline/tie-in spool configuration and free span location / length.

T&I CONTRACTOR shall arrange one (1) T&I Representative onboard survey vessel which will be perform by COMPANY other CONTRACTOR in order to coordinate and verify with COMPANY SITE REPRESENTATIVE on survey vessel while performing As-Built survey. Upon As-Built Survey and free-span rectification completion by COMPANY other CONTRACTOR. COMPANY will provide the data of As-Built Survey to T&I CONTRACTOR for complying such data as FINAL DOCUMENT.

#### 12.8.2 Temporary Protection

T&I CONTRACTOR shall install covering materials as temporary protection for existing facilities in areas exposed to risk from installation. Such temporary protection shall be removed by T&I CONTRACTOR when necessary for the achievement of the WORK, and at the latest when cleaning the SITE.

12.8.3 Seabed Preparation

Not Used.

12.8.4 Pipeline laying and Installation

The scope shall include, but not be limited to, the following activities;

- a) Lay barge anchoring / DP vessel positioning
- b) Pipeline laying initiation
- c) Pipeline Laying within pipeline corridor
- d) Pipeline abandonment and recovery in case of emergency
- e) Pipeline laying termination, including shifting into the final position at platforms approaches as necessary in both empty pipe case and flooded case
- f) Installation of pipeline global buckling prevention as required

12.8.5 Crossing Sleeper and Mattress Installation (if applicable)

The scope shall include, but not be limited to, the following activities:

- a) Pre-lay survey before the crossing installation
- b) Installation of crossing sleepers as per design dossier
- c) Removal of temporary protection, installation aids and etc.
- d) Install grout bag as part of crossing support

T&I CONTRACTOR shall also strictly follow the APPROVED mooring/anchoring procedure and/or DP vessel positioning procedure and use temporary protection as necessary to avoid damages to existing facilities.

12.8.6 Free Span Correction and Post Intervention Work (optional)

T&I CONTRACTOR's lump sum price shall not include any free span correction WORK. However, Final cost of free span correction shall be subject to final price adjustment via CHANGE ORDER based on the actual WORK done with the unit rates provided in Annex 3 of EXHIBIT B.

All additional free span corrections if COMPANY instruct T&I CONTRACTOR to perform shall be performed in the same mob/demob of the free-span correction MARINE SPREAD. For clarity, COMPANY shall not compensate any mob/demob of MARINE SPREAD for the additional free span corrections.

The T&I CONTRACTOR shall submit details (datasheet) of grout bags and its installation procedure for COMPANY APPROVAL prior to installation. These documents may be included in the pipeline installation procedure.

In case T&I CONTRACTOR finds any free spans which need to be corrected, but installation of the grout bag is not possible. T&I CONTRACTOR shall propose the feasible solution subject to APPROVAL by COMPANY Site Representative at SITE.

12.8.6.1 Pre-installation rectification

Seabed topography identified during pre-installation survey resulting in spans exceeding the allowable length for installation load cases shall be rectified by T&I CONTRACTOR prior to pipeline laying. T&I CONTRACTOR shall propose the seabed intervention method and procedure to COMPANY for review and APPROVAL prior to proceeding.

12.8.6.2 Pre-flooding rectification

After laying, T&I CONTRACTOR shall survey and rectify all pipeline free spans which exceed the maximum allowable length for flooding condition along the entire route prior to filling the pipeline for hydrotesting. The spans shall be either permanently rectified by the grout bags as per the T&I CONTRACT (subject to COMPANY's instruction / APPROVAL) or temporarily rectified by sand bags at T&I CONTRACTOR's decision and own cost.

In such event that sand bags are installed by T&I CONTRACTOR for temporarily rectify spans. Then, after pipeline flooded and hydro-tested, T&I CONTRACTOR shall verify such spans rectified by sand bags by ROV to record its conditions. In any cases that pipeline slip or fall from sand bags or grout bags, such cases shall be rectified immediately at T&I CONTRACTOR's own cost.

#### 12.8.6.3 Post-flooding/hydrotesting rectification

After pipeline flooded and hydrotested, T&I CONTRACTOR may be instructed to perform pipeline as-built survey as per 12.8.1.3. Any free spans that exceed the acceptance criteria for operation shall be permanently rectified by grout bags, subject to COMPANY's instruction.

#### 12.8.7 Subsea Tie-In Spools and Subsea Flange Protection Installation

The scope shall include, but not be limited to, the following activities:

- a) Adjustment of subsea tie-in spools on the basis of as-laid survey of pipeline and risers' extremities, as per SPECIFICATION
- b) Installation of temporary facilities as necessary
- c) Installation of subsea tie-in spools and connection to pipelines and risers
- d) Leak test at flange joints.
- e) Installation of flange protector with and without insulation mattress
- f) Removal of temporary facilities, including removal of temporary riser support at the bottom riser of each pre-installed riser, including temporary supports installed in existing platforms if any.

The T&I CONTRACTOR shall also strictly follow the APPROVED mooring/anchoring procedure and/or DP vessel positioning procedure and use temporary protection as necessary to avoid damages to existing facilities.

The T&I CONTRACTOR shall aware that the installation and connection of subsea tie-in spools shall be performed while existing platforms are in production servicing. T&I CONTRACTOR shall therefore take this constraint into consideration for the execution of this part of the WORK and strictly adhere to the APPROVED procedure and more generally to the COMPANY safety regulations.

#### 12.8.8 Pipeline Pre-Commissioning and Preservation

The pre-commissioning of pipeline shall be performed to cover from pig launcher at New Wellhead Platform to last flange of sub-sea tie-in spool connected to the existing facility either riser at existing Wellhead Platform or existing PLEM/WYE as base scope of WORK. For optional scope, the pre-commissioning of pipeline shall be performed alternatively either from pig launcher at New Wellhead Platform to Riser top (First weld joint above the riser clamp at existing Wellhead Platform), the existing receiving facilities or last flange of the last tie-in spool depend on T&I CONTRACTOR technique and subject to COMPANY approval. The scope shall include, but not be limited to, the following activities:

- a) Pipeline hydrostatic testing: These activities shall be performed as per SPECIFICATION with the following specific requirements:

- i) Pipeline cleaning, gauging and hydrostatic testing
  - ii) If pre-commissioning through pipeline main valves on platform, they shall be removed and replaced with dummy spools. (refer to Section 11.5.14)
  - iii) Upon successful completion of the pipeline cleaning, gauging and hydrostatic testing, dummy spools shall be removed, and pipeline main valves shall be reinstated with bolt tensioning equipment.
  - iv) After reinstatement, leak test shall be performed using KaMOS gasket at 1.4 times of design pressure and tightness of related flanges shall be checked.
- b) Cleaning and preservation of pipelines with filtered, inhibited water for pipeline system and N2 for topside pipeline
  - c) Submission of the completed Pre-commissioning Dossier

## **12.9 Damages and Repairs**

### **12.9.1 General Requirements**

The T&I CONTRACTOR shall repair all damage sustained by the existing and new structures, pipelines, wellhead platform, risers, topside piping, electrical, instrument, telecom installation and tie-in spools during performance of the WORK. All repair WORK activities shall subject to prior written APPROVAL and shall be witnessed and APPROVED by COMPANY.

However, the compensation for the repair of the damage may be reimbursable by fault base basis subjected COMPANY's APPROVAL

### **12.9.2 Dents and Buckles**

Dents and buckles shall be removed from the pipe by cutting the damaged length from the line. The cutout shall be the length of the damaged area plus one pipe diameter minimum on each side. After cut back, the T&I CONTRACTOR shall perform UT for lamination check and the pipe shall then be rejoined by girth weld in accordance with the SPECIFICATIONS. The pipe ovality or damage shall then be checked by the passing of a buckle detector plate. After repair of a buckle, the coating shall be repaired as described herein.

### **12.9.3 Damages Detected Below Water**

The T&I CONTRACTOR shall provide repair procedures for damage discovered after the pipe has been laid in water. The procedures must be APPROVED by the COMPANY.

### **12.9.4 Wet Buckling**

The T&I CONTRACTOR shall submit a detailed procedure for APPROVAL and thereafter shall dewatering and retrieving the line and the repairs in the event of a wet buckle.

## **12.10 Installation of Post-Installed Riser (Optional of Work Package 2)**

### **12.10.1 General Requirements**

BROWNFIELD modification and tie-in WORK shall include design, engineering (section 9.10), procurement (included in section 10.4), onshore fabrication and pre-commissioning (included in section 11.7) and offshore installation of existing facilities (included in this section 12.10).

If the scope in this section is exercised, T&I CONTRACTOR shall be responsible for all WORKS related to the transportation and installation of post-installed riser, riser clamp and riser protector at the existing PLATFORMS including riser hook up (by welding up to 3 offshore weld joints) with the pipeline on the topside to be ready for pipeline tie-in and pre-



commissioning (flushing and hydrotesting) as per the scope of pipeline installation stipulated in section 12.8.

The T&I CONTRACTOR shall provide the resources, included MARINE SPREAD (included accommodation, transportation and installation), PERSONNEL, CONSTRUCTION EQUIPMENT and be responsible for completion of the WORK detailed above.

The T&I CONTRACTOR shall be aware that said WORKS shall be performed while facilities are producing hydrocarbon fluids. The T&I CONTRACTOR shall therefore take under consideration the following constraints for the preparation of related procedures, and for execution of the WORK.

COMPANY safety procedures/ policies and regulations have to be strictly complied with, in particular; T&I CONTRACTOR shall obtain from COMPANY all required WORK permits. The requirement for shut-down a line / system when the spools are to be tied in to existing facilities e.g. ESDV, riser, etc. is subject to JSA results which shall be performed during execution phase.

### **12.11 Installation of Brownfield Modifications (Optional of Work Package 3)**

T&I CONTRACTOR scope of BROWNFIELD Modifications WORK shall include pre-installation site survey at existing Wellhead Platform, site preparation, transportation and installation of pig receiving facilities including and deck extension. T&I CONTRACTOR shall refer to Exhibit E, Annex 6 as the basis for the proposal.

The offshore Brownfield Modifications WORK shall include any associated modifications and demolition WORK including material handling scope of work (if any)

Monorail Trolley Hoist for handling New Pig Receiver & New ESDV is part of T&I CONTRACTOR's scope of WORK. T&I CONTRACTOR shall provide manual trolley hoist for Brownfield platforms of required capacity as per manufacturer standard.

The location and details of Brownfield Modification and Tie-in WORK shall be instructed by COMPANY on a PHASE by PHASE basis by the issuance of NOTICE TO PROCEED for each PLATFORM within a PHASE.

The T&I CONTRACTOR shall be aware that said WORKS shall be performed while PLATFORMS are producing hydrocarbon fluids. The CONTRACTOR shall therefore take under consideration the following constraints for the preparation of related procedures, and for execution of the WORK.

T&I CONTRACTOR shall prepare and issue Brownfield Modification Work Package that include all necessary technical document, drawings, procedure, man-power plan, equipment/tools list, JSA, and other related for COMPANY APPROVAL ninety (90) days prior commencement of Brownfield Modification WORK.

COMPANY safety procedures/ policies and regulations have to be strictly complied with, in particular; CONTRACTOR shall obtain from COMPANY all required WORK permits.

#### **12.11.1 Telecommunication, SCADA, PLC and Control System modification**

T&I CONTRACTOR scope of WORK shall be responsible to support VENDOR PERSONNEL (VENDOR will be supplied by EPC CONTRACTOR) for the accommodation and crew boat for the commissioning of telecommunication on New Wellhead Platform,

SCADA, PLC and control system modification on existing Wellhead Platform and Central Processing Platform.

T&I CONTRACTOR shall be responsible to provide suitable man-power, tools and scaffolding (if require) to support VENDOR for offshore Telecommunication antenna adjustment at New Wellhead Platform, communication test link between New Wellhead Platform and Central Processing Platform and Control system modification on Central Processing Platform modification.

Refer to detailed scope of WORK in Exhibit A, Annex-14 and DESIGN DOSSIER at Exhibit E, Annex 6.

#### 12.11.2 Pig Receiver and its facilities modification

T&I CONTRACTOR scope of WORK shall be responsible to perform offshore modification on existing Topside which shall be included the installation of new Pig Receiver and its associated facilities (piping, electrical, instrumentation, miscellaneous structural work).

Refer to detailed scope of WORK in DESIGN DOSSIER at Exhibit E, Annex 6.

#### 12.11.3 Deck Extension for Pig Receiver

T&I CONTRACTOR scope of WORK shall be responsible to perform offshore modification on existing Topside which shall be included the installation of deck extension used to support new Pig Receiver mentioned in Section 12.11.2.

Refer to detailed scope of WORK in DESIGN DOSSIER at Exhibit E, Annex 6.

### 12.12 **Sunken Items**

When removal of wreckage or debris including fishing nets, concrete blocks, anchors and the like, not caused by the T&I CONTRACTOR INDEMNIFIED PARTIES, is compulsory under APPLICABLE LAWS or when the COMPANY considers that the wreckage or debris may interfere with any COMPANY's operations, or the performance of the WORK, the COMPANY may instruct and the T&I CONTRACTOR shall forthwith raise and/or remove the same. In such event T&I CONTRACTOR may request a CHANGE ORDER in accordance with articles 15 and 22.

Any craft and/or object sunken or made derelict by the act or omission of the T&I CONTRACTOR shall be raised and removed by the T&I CONTRACTOR in accordance with directions to be issued by the COMPANY. Until such sunken craft and/or object is raised and removed, the T&I CONTRACTOR shall set such buoys and display such lights and do all such things for the safety of navigation as may be required by the authorities concerned or by the COMPANY. The fact that a sunken craft or object is insured and has been declared a total loss shall not absolve the T&I CONTRACTOR from his obligations to raise and remove the same.

If the T&I CONTRACTOR fails to immediately inform the COMPANY or fails to diligently comply with the COMPANY's instructions or if the T&I CONTRACTOR have been involved in any way by any act or omission directly or indirectly in the sinking or wrecking of any craft or dropping of any items at sea, the T&I CONTRACTOR shall not be entitled to make any CLAIMS or request a CHANGE ORDER hereunder and shall perform the above operations at his own costs, risks and expenses.

## 13.0 FINAL DOCUMENTATION

### 13.1 General Requirements

The T&I CONTRACTOR shall compile all FINAL DOCUMENTATION including that from VENDORS, subcontractors and SUPPLIERS, in accordance with;

- a) AGREEMENT sub-articles 14.4.5 and 14.4.6,
- b) This Exhibit A, Exhibit A Annex-1 & 2
- c) 10008-STD-6-GEN-002, Coding Protocol for Project Specific Documents and Drawings
- d) 10008-STD-6-GEN-004, Min. Requirements for Contractor's Documentation,
- e) PEGS-0710-DWG-002 Standard Symbols and Legend for P&ID
- f) 10008-STD-6-DWG-001, AutoCAD Standard and Procedures
- g) any other applicable term of the CONTRACT

#### 13.1.1 Work Package 1, 3 and 4:

Final documentation for Work Package 1, 3 and 4 shall be performed by EPC CONTRACTOR. However T&I CONTRACTOR shall be responsible to provide the offshore as-built survey result of the wellhead platform after installation (i.e. Platform position, Platform elevation, Platform orientation), platform installation record (i.e. Pile driving record, offshore welding record and QA/QC record, platform hook up redline marked up) and other related information as requested by EPC CONTRACTOR to complete its final documentation scope of WORK

#### 13.1.2 Work Package 2 and 5:

Final documentation for Work Package 2 and 5 shall be performed by T&I CONTRACTOR. However, if pipeline as-built survey is performed by COMPANY other CONTRACTOR, the data and information will be provided to T&I CONTRACTOR to complete its final documentation scope of WORK.

The minimum list of FINAL DOCUMENTS is indicated in Exhibit A Annex-1.

FINAL DOCUMENTATION shall comprise;

- a) the latest APPROVED T&I CONTRACTOR and SUBCONTRACTOR Technical Documents,
- b) native software, input and databases (error free) for all reports, calculation and simulation listed in the Exhibit-A Annex-2
- c) VENDOR Technical Documents
- d) SUPPLIER Technical Documents

The above compilation shall include updated revisions and or changes made during the performance of the WORK based on as-builts.

The T&I CONTRACTOR shall prepare As-Built documents/drawings based on Red Line Mark-ups made during the WORK. T&I CONTRACTOR shall update/revise all engineering and construction documents, including PDMS model, VENDOR documents and QA/QC documents as results of modifications that arise in the course of construction/onshore pre-commissioning, commissioning, and installation

FINAL DOCUMENTATION structure (MDDR) and procedure shall be submitted for APPROVAL prior to start preparation and consolidation of FINAL DOCUMENTATION.

The FINAL DOCUMENTATION shall include soft copies with the number of copies as specified in EXHIBIT G. The soft copies shall include both in PDF format (printed from PDF program and searchable with signed& scanned cover page) and their native files such as word, AutoCAD, computer program input files.

The T&I CONTRACTOR shall provide the summary priced table of all package items, tagged items, and bulk materials as part of the FINAL DOCUMENTATION. The COMPANY may request and the T&I CONTRACTOR shall provide COMPANY access to and sight of the back-up documents, subcontracts, Purchase Order, etc.

### **13.2 FINAL DOCUMENTATION Index and Execution Plan**

#### **13.2.1 Index**

The T&I CONTRACTOR shall prepare, propose and submit a comprehensive index of FINAL DOCUMENTATION (dossiers, documents and drawings) no later than ninety (90) after the EFFECTIVE DATE for APPROVAL. The FINAL DOCUMENTATION Index shall be developed along with Master Deliverable Register in similar format and arrangement.

#### **13.2.2 FINAL DOCUMENTATION Execution Plan**

The T&I CONTRACTOR shall prepare and submit a comprehensive fully developed FINAL DOCUMENTATION Execution Plan no later one hundred and twenty (120) days after the EFFECTIVE DATE for APPROVAL. The FINAL DOCUMENTATION Execution Plan shall:

- a) Describe, categorize and explain how all FINAL DOCUMENTATION from the T&I CONTRACTOR, and that from VENDORS, subcontractors and SUPPLIERS will be prepared, expedited, reviewed, verified and submitted for APPROVAL.
- b) Describe and explain how comments from the COMPANY will be incorporated, actioned and FINAL DOCUMENTS updated.
- c) Contain a time scaled plan comprising a categorized list of FINAL DOCUMENTS and the planned / target dates for activities 14.2.2 a) and b) above.

Such APPROVAL shall not limit or restrict the number and type of FINAL DOCUMENTS to be submitted by the T&I CONTRACTOR, VENDORS, subcontractors and SUPPLIERS.

#### **13.2.3 Submission Deadlines**

FINAL DOCUMENTATION shall be submitted for APPROVAL as follows:

- |  |   |
|--|---|
| a) For non-itemized (bulk) T&I CONTRACTOR ITEMS :                          | No later than thirty (30) days after delivery to the WORKSITE               |
| b) For itemized (tagged) T&I CONTRACTOR ITEMS :                            | No later than sixty (60) days after delivery to the WORKSITE                |
| c) T&I CONTRACTOR and subcontractor fabricated items and coated linepipe : | No later than thirty (30) days after sail away from the applicable WORKSITE |
| d) Completion of FINAL DOCUMENTATION                                       | No later than 90 days after platform sail away                              |

The T&I CONTRACTOR shall cascade the above requirements down to VENDORS, subcontractors and SUPPLIERS to ensure compliance with the required submission dates to COMPANY.

### **13.3 Number and Types of Copies**

#### **13.3.1 Submission for APPROVAL**

All FINAL DOCUMENTS shall be submitted for APPROVAL in electronic format (searchable PDF, index bookmarks and native file) via the PROJECT EDMS and in accordance with the Exhibit A Annex-1 procedure for document control. It is subject to Fabrication requirement, document used at fabrication yard may be also required hardcopy for review. Paper copies are generally not required except during final verification of complied FINAL DOCUMENTATION dossiers.

#### **13.3.2 Compilation and APPROVAL of Dossiers**

Compilation and APPROVAL of complied FINAL DOCUMENTATION dossiers shall be done on a progressive basis, dossier by dossier.

The required FINAL DOCUMENTATION dossiers (set) are:

- a) Project Management Dossier
- b) Engineering Dossier
- c) As-built Drawings Dossier
- d) Vendors Dossier
- e) Quality Dossier
- f) Installation & Hook up Dossier
- g) Pre-commissioning and Commissioning
- h) Operation and Maintenance
- i) Project Close Out Dossier
- j) Correspondence
- k) Software

When all compiled dossiers are APPROVED the T&I CONTRACTOR shall make and deliver five (5) electronic sets of compiled FINAL DOCUMENTATION dossiers (one set per hard disk or suitably sized flash drive) to the COMPANY, each. All FINAL DOCUMENTS in each complied dossier shall be in searchable PDF format (printed PDF from native file, OCR format is unacceptable).

The T&I CONTRACTOR shall reduce size of documents before submitted. All contents in the documents shall be clear, sharp and easy to read with index bookmarks, including native files for input database/ reports/ calculation/ simulation and suitably indexed, referenced and linked.

The T&I CONTRACTOR shall convert all radiographed film to soft files, i.e. via RT digitizer (or Film scanner) and include the digital files in the FINAL DOCUMENTATION soft copies. In case of utilizing RT Film scanner, the following shall apply:

- a) Processing Machine and digital image quality shall comply with ISO 14096 Part 1 and Part 2, ASME Section V, ASTM E2339 and ASTM E1936.
- b) Digital images in DICONDE, JPEG and other formats shall be provided along with applicable viewer software. The T&I CONTRACTOR shall propose the Processing Machine (make, model and type) for APPROVAL no later than twenty (20) days before commencement of the RT film digitization

- c) Procedure for RT film digitization as well as required qualifications and experience of machine operators shall be prepared by RT Level 3 PERSONNEL from T&I CONTRACTOR or NDT subcontractor and submitted for APPROVAL no later than twenty (20) days before commencement of the RT film digitization
- d) Digital images shall be reviewed by qualified RT interpreter and then submitted error free to the COMPANY for APPROVAL.

#### **13.4 Progress Reporting**

The T&I CONTRACTOR shall prepare and submit a Progress Report on a bi-weekly basis showing planned and actual status of each FINAL DOCUMENT with progress summarized by category and dossiers, and overall.

The format and content of the FINAL DOCUMENTATION Progress Report shall be proposed by the T&I CONTRACTOR for APPROVAL. Progress of FINAL DOCUMENTATION shall be an agenda item in the weekly and monthly project management meetings.

## **14.0 COMPLETION OF WORK**

### **14.1 HANDOVER CERTIFICATES**

HANDOVER CERTIFICATES shall be issued for the following major parts of the PLANT:

- a) New Wellhead Platform
- b) New sub-sea pipeline and Tie-ins
- c) Post-installed riser
- d) Brownfield modification
- e) Topside Relocation and Navigation Aid Platform
- f) FSO2 new pipeline and PLEM

Requests for and issuance of HANDOVER CERTIFICATES shall be in accordance with the procedure stated in AGREEMENT sub-article 19.1.2 i.e.

- a) Seven (7) days prior written notice of anticipated completion
- b) Joint inspection by the PARTIES
- c) Submission of the “inspection Report” by the T&I CONTRACTOR
- d) Issue of HANDOVER CERTIFICATE or “notice of non-conformity”

The effective date of each HANDOVER CERTIFICATE shall be the date when all the applicable requirements of AGREEMENT sub-article 19.1.1 e) have been achieved, minor WORK items excepted.

The effective date of each HANDOVER CERTIFICATE shall be the day on which the part of the PLANT are fully completed and accepted by the COMPANY.

When requesting INTERIM CERTIFICATES, the T&I CONTRACTOR shall ensure that MWS’ approval /certificate is included with the request prior to submit for COMPANY’S APPROVAL. Refer to Exhibit A Annex-4 for details of MWS responsibility matrix.

### **14.2 PROVISIONAL ACCEPTANCE CERTIFICATES**

Unless otherwise agreed by the PARTIES, a single PROVISIONAL ACCEPTANCE CERTIFICATE shall be issued when all of the WORK and the PLANT has been satisfactorily completed. Issuance of the PROVISIONAL ACCEPTANCE CERTIFICATE shall be subject to and in accordance with the procedure stated in AGREEMENT sub-article 19.2. Notwithstanding the foregoing, for ease of administration, the PARTIES may agree to issue PROVISIONAL ACCEPTANCES on a PLATFORM by PLATFORM basis.

### **14.3 Rectification Procedure for Minor WORK Items and Defects**

The T&I CONTRACTOR shall prepare and submit a “Rectification Procedure” for completion of minor WORK and rectification of defects during the WARRANTY PERIOD.

The Rectification procedure shall be comprehensive, include all aspects and shall be submitted no later than ninety (90) days before the planned date of the first HANDOVER CERTIFICATE.

### **14.4 Tracking Actions and Progress Reports**

The T&I CONTRACTOR shall and maintain an up to date live database of minor WORK items (if any) and defects with the current status and shall update and issue Action Tracking Status Report on a regular basis (bi-weekly) for REVIEW.

The format and content of the action tracking register shall be proposed by the T&I CONTRACTOR and submitted for APPROVAL.

**15.0 Final Assessment and FINAL ACCEPTANCE CERTIFICATE**

The procedure for final assessment shall be as stated in AGREEMENT sub-article 32.6 and the procedure for FINAL ACCEPTANCE shall be as stated in AGREEMENT article 21.



**EXHIBIT B**

**SCHEDULE OF PRICES AND RATES**

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**Annexes to Exhibit B**

Annex-1	Summary of Lump Sum Prices
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Annex-6	Reimbursable at “Cost” and “Cost Plus Fee” Basis
Annex-7	Services and Facilities for the COMPANY

## **1.0 Introduction**

### **1.1 Purpose of Exhibit B**

The purpose of this Exhibit B and Annexes, 1,2,3,4,5,6 and 7 is to describe and explain:

- a) the Initial CONTRACT PRICE and how it shall be calculated,
- b) OPTIONS (also referred to as Optional Items),
- c) compensation method for Material Group 1 CONTRACTOR ITEMS,
- d) adjustment basis, prices, rates and terms for CHANGE ORDERS,
- e) other terms and requirements with regard to compensation for performance of the EPC WORK and the completion of the PLANT components and related items.

## **2.0 CONTRACT PRICE**

### **2.1 General**

The CONTRACT PRICE for each PHASE shall comprise be the Initial CONTRACT PRICE for the PHASE as modified by CHANGE ORDERS Approved and signed by the COMPANY.

The CONTRACT PRICE for each PHASE shall be the entire, full and complete compensation due to the T&I CONTRACTOR for the performance of the T&I WORK and for the completion of the PLANT for such PHASE in accordance with terms and requirements of this CONTRACT.

### **2.2 Initial CONTRACT PRICE**

#### **2.2.1 General**

The Initial CONTRACT PRICE for each PHASE shall be calculated based on the applicable NOTICE TO PROCEED and the Statement of Requirements (SOR) for the PHASE.

#### **2.2.2 Obligations of the T&I CONTRACTOR**

The T&I CONTRACTOR shall prepare and submit the Initial CONTRACT PRICE for a PHASE to COMPANY for APPROVAL no later than thirty (30) days after the date of issue of the relevant NOTICE TO PROCEED. Each Initial CONTRACT PRICE prepared by this CONTRACTOR shall be subject to prior Approval by the COMPANY before use.

Each Initial CONTRACT PRICE shall present the full details of constituent items, quantities, prices and rates and shall be calculated in accordance with Section 2.2.3 of this Exhibit B and shall be in such detail as the COMPANY may require.

If the T&I CONTRACTOR fails to submit the Initial CONTRACT PRICE for a PHASE within the above timeframe, the COMPANY shall have the right but not as an obligation to inform the T&I CONTRACTOR of the Initial CONTRACT PRICE for the PHASE. In such event, the Initial CONTRACT PRICE informed by the COMPANY shall be used for the PHASE and shall be binding on the PARTIES as though it had been prepared by CONTRACTOR and Approved by COMPANY.

#### **2.2.3 Calculation of Initial CONTRACT PRICES**

The Initial CONTRACT PRICE for a PHASE shall comprise as applicable:

- a) T&I WORK Package 1 Wellhead Platform (Base Scope) as per the applicable NOTICE TO PROCEED and Statement of Requirements, priced using applicable Exhibit B Annex-1 Lump Sum Prices and compensation method as per Exhibit B Section 2.3,

- b) T&I WORK Package 2 Associated Pipeline and Tie-ins as per APPROVED preliminary MTO and APPROVED estimated installation pipeline length which the T&I CONTRACTOR shall prepare according to this Exhibit B Section 3.8 below and priced as per the applicable Exhibit B Annex-1 prices and compensation method as per Exhibit B Section 2.3,
- c) T&I WORK Package 3 (OPTION) Existing Topside Brownfield Modification as per the applicable NOTICE TO PROCEED and Statement of Requirements, priced using applicable Exhibit B Annex-1 Lump Sum Prices and compensation method as per Exhibit B Section 2.3,
- d) T&I WORK Package 4 Existing Topside Relocation as per the applicable NOTICE TO PROCEED and Statement of Requirements, priced using applicable Exhibit B Annex-1 Lump Sum Prices and Lump Sum Prices,
- e) Work Package 5 new FSO pipeline, PLEM and tie-ins as per the applicable NOTICE TO PROCEED and Statement of Requirements, priced using applicable Exhibit B Annex-1 Lump Sum Prices and compensation method as per Exhibit B Section 2.3,
- f) Optional Items as per Exhibit B Annex-2 to the extent exercised by the issue of the applicable NOTICE TO PROCEED and Statement of Requirements, priced using the applicable Exhibit B Annex-2 List of Prices for Optional Items.

Having regard to Sections 3.1 and 3.2 of this Exhibit B and the other terms and requirements of this CONTRACT, if there is no price or rate for an SOR item in Exhibit B and/or Annexes 1,2,3,4,5 or 7, the PARTIES may, subject to COMPANY Approval, agree an applicable new sum, price and/or rate to apply which shall be documented in the applicable Initial CONTRACT PRICE and in such case a confirmatory CHANGE ORDER is not required.

However, if the PARTIES are not able to agree on a new price and/or rate as part of the Initial CONTRACT PRICE a provisional amount shall be inserted in the Initial CONTRACT PRICE, and such provisional amount shall be adjusted by CHANGE ORDER at a later date.

**2.3 Summary of Compensation Method**

Table below presents the compensation method for T&I WORK properly performed and each T&I Work Unit (WU).

WU	Description	Compensation Method
1	Project Management & Services	Fixed Lump Sum price per PLATFORM or Pipeline calculated using the applicable Exhibit B Annex-1 sums and prices.
2	Engineering	<p><u>2.1 Generic Detailed Engineering</u> <sup>(Note-1)</sup>                      Fixed Lump Sum price for the PROJECT calculated in using the applicable Exhibit B Annex-1 sums and prices. Shall be paid one time only and not on per PLATFORM or Pipeline basis.</p> <p><u>2.2 Particular Detailed Engineering:</u>                      Fixed Lump Sum Price calculated using the applicable Exhibit B Annex-1 sums and prices.</p> <p><u>2.3 Transportation &amp; Installation Engineering:</u>                      Fixed Lump Sum Price calculated using the applicable Exhibit B Annex-1 sums and prices.</p>

WU	Description	Compensation Method
3	Procurement Services & Supply	<u>3.1 Material Group 1 CONTRACTOR ITEMS</u> (Note-2) 3.1.1 Material: Final Approved Purchase Order Cost and provisional arrangements as per Exhibit B Section 3.6.1.1 3.1.2 Services Fee: Fixed lump sum price per PLATFORM or Pipeline. <u>3.2 Material Group 2 CONTRACTOR ITEMS</u> Fixed Lump Sum price per Unit.
4	Onshore Construction	Fixed Lump Sum Price
5	Transportation & Installation	Fixed Lump Sum Price
6	Mobilization & Demobilization of the MARINE SPREAD	Fixed Lump Sum Price per time

Note-1 Generic detailed engineering shall be performed only once for PROJECT unless otherwise instructed by the COMPANY.

Note-2 Refer to Exhibit A Annex 12 for details of Material Group 1 and 2 CONTRACTOR ITEMS.

Note-3 Only one (1) mobilization and one (1) demobilization of MARINE SPREAD for each installation year (as a single offshore campaign) shall be considered regardless of the number of PHASE(S). In case the installation year comprises more than one (1) PHASE, the price of mobilization and demobilization shall apportion across the applicable PHASE(S).

**3.0 Conditions of Prices and Rates**

**3.1 All Inclusive Nature of the Initial CONTRACT PRICES and CHANGE ORDERS**

**3.1.1 Entirety of the Initial CONTRACT PRICES**

Except for items that are expressly stipulated in this CONTRACT to be the subject of a CHANGE ORDER, the T&I CONTRACTOR has accounted for and has included within the Initial CONTRACT PRICE for all things required, implicit and explicit, and for all things of whatsoever nature if stated or not but which are necessary for the correct, complete and timely performance of the T&I WORK and for the correct and timely completion of the PLANT, in accordance with the terms of this CONTRACT and or may be reasonably inferred therefrom.

**3.1.2 CHANGE ORDERS**

Each CHANGE ORDER shall be deemed to take into account the full and final effects of the modifications described in the CHANGE ORDER upon any and all aspects of this CONTRACT and the T&I CONTRACTOR shall not to make any further CLAIM with respect the content of a CHANGE ORDER nor for any matter arising from and or in connection with the subject matter of the CHANGE ORDER except as may be expressly stated therein.

### 3.1.3 Defective Description and or Omission

Notwithstanding any omission from and or defective description in this CONTRACT DOCUMENTS or in any CHANGE ORDER, all operations, activities and everything required and necessary for the timely and correct performance of the T&I WORK and the correct and timely completion of the PLANT in accordance with this CONTRACT shall be deemed to be included within the applicable Initial CONTRACT PRICE or applicable CHANGE ORDERS as the case may be.

### 3.2 **All Inclusive Prices, Rates and Lump Sum Amounts**

Subject rights of the PARTIES under this CONTRACT including but not limited to AGREEMENT article 22 and except as may be expressly stated in this CONTRACT, all prices and rates set out in this Exhibit B and Exhibit B Annexes 1, 2, 3, 4, 5, 6, and 7, consistent with the lump sum nature of this CONTRACT shall regardless of difficulty be:

- a) fixed and firm for the duration of this CONTRACT,
- b) shall not be subject to any revision for cost and price escalation, currency and exchange rate fluctuations,
- c) shall be “all inclusive” in nature and without limitation and or restriction include for all things required and necessary irrespective of difficulty and irrespective of if such items are stated in this CONTRACT DOCUMENTS or not,
- d) shall be deemed to include for all things required and/or necessary.

### 3.3 **Price Divisions and Price Sub-Divisions**

Under no circumstances shall the price division and subdivisions in Exhibit B Annexes 1 and 2 be read and or construed as a qualification or limitation to the concept of the entirety of the lump sum nature of an Initial CONTRACT PRICE.

### 3.4 **Services and Facilities for COMPANY PERSONNEL**

#### 3.4.1 Lump Sum Prices for Services and Facilities for COMPANY PERSONNEL

Services and facilities to be provided by the T&I CONTRACTOR on a lump sum price basis for COMPANY PERSONNEL are described in Exhibit B Annex-7 and priced in Exhibit B Annex-1. These services and facilities shall not be subject to the Call-Off process described in Exhibit B Section 3.5.2 and shall be provided and when requested to do so by the COMPANY.

The applicable Exhibit B Annex-1 Lump Sums shall not be adjusted for the actual provision: types, quantities and durations of services and facilities unless by operation of AGREEMENT articles 48 and 49.

#### 3.4.2 Provisional Sum for Services and Facilities for COMPANY PERSONNEL

Exhibit B Annex-7 lists non-lump sum (provisional) services and facilities which the COMPANY may require the T&I CONTRACTOR to provide for COMPANY PERSONNEL.

The T&I CONTRACTOR shall be compensated on PHASE by PHASE basis for the actual provision of such services and facilities in the manner explained in this section.

The procedure for provision of services and facilities are as follows:

- a) The COMPANY will instruct the T&I CONTRACTOR by means of Call-Off(s) on a PHASE by PHASE basis for the types, quantities and durations of services and facilities to be provided with the applicable Exhibit B Annex-7 prices and rates. The COMPANY shall issue a CHANGE ORDER for the Call-Off Amount.

- b) The T&I CONTRACTOR shall provide the services and facilities in the manner instructed and shall do so until the COMPANY instructs otherwise.
- c) The T&I CONTRACTOR shall record and document the start and end of provision of each service and or facility and submit details to the COMPANY for APPROVAL.
- d) The T&I CONTRACTOR shall invoice on a monthly basis against Call-Off(s) for actual provision: types, quantities and durations of services and facilities, priced in the manner stipulated in the applicable Call-Off. Such invoices shall be supported by full substantiating documentation and APPROVED summaries (monthly and cumulative).
- e) The CONTRACT PRICE for a PHASE shall be adjusted by CHANGE ORDER at the end of the provision of services and facilities as per actual quantities and duration used.

The T&I CONTRACTOR shall not provide a service or facility that is not priced in the Exhibit B Annex-1 lump sum prices unless the COMPANY has issued an applicable Call-Off order.

### **3.5 Services and Facilities supplied by COMPANY**

Unless any services and facilities provided by the COMPANY to the CONTRACTOR are expressly stated to be as such in Exhibit A the T&I CONTRACTOR shall compensate the COMPANY for any other services and/facilities provided by the COMPANY to the CONTRACTOR, SUBCONTRACTOR and/or VENDOR as the case may be.

The COMPANY will provide details of charges for COMPANY provided services from time to time during the performance of the CONTRACT on an as necessary basis.

### **3.6 Procurement Services and Supply**

#### **3.6.1.1 Material Group 1 CONTRACTOR ITEMS**

The T&I CONTRACTOR shall be compensated for procurement and supply of for Material Group 1 CONTRACTOR ITEMS shall be as follows:

#### **3.6.1.2 Net Purchase Order Cost**

- a) Net Approved Final Purchase Order Cost

The compensation amount to T&I CONTRACTOR for Approved Material Group 1 CONTRACTOR ITEMS procured for a PHASE shall be the aggregate net amounts due and paid by the T&I CONTRACTOR to the applicable VENDORS for Material Group 1 CONTRACTOR ITEMS procured for the PHASE in accordance with the terms and requirements of the applicable Purchase Orders but excluding amounts incurred because of the T&I CONTRACTOR's fault, error, neglect, and or omission (if any), referred to as Final Purchase Order Costs.

- b) Approval of the Final Purchase Order Cost

The T&I CONTRACTOR shall compile and submit details and full substantiation of the Final Purchase Order Costs of Material Group 1 CONTRACTOR ITEMS on a PHASE by PHASE basis to the COMPANY for review, comment and Approval.

- c) Provisional Arrangements Pending Approval of the Final Purchase Order Costs

The T&I CONTRACTOR shall propose provisional amounts for Material Group 1 CONTRACTOR ITEMS which, subject to review and approval by the COMPANY, shall be utilized for the purposes of establishment of the Initial CONTRACT PRICE for the applicable PHASE as per Section 2.0 of this Exhibit B and for progress payments in accordance with Exhibit G Annex-5, Exhibit G



Annex-7 and AGREEMENT article 32, pending adjustment of the applicable Initial CONTRACT PRICE in accordance with sub-article 3.6.1.4

3.6.1.3 Service Fee for Procurement of Material Group 1 CONTRACTOR ITEMS

The T&I CONTRACTOR shall be compensated for procurement services for Material Group 1 CONTRACTOR ITEMS on a PLATFORM by PLATFORM basis by means of the applicable service fee stated in Exhibit B Annex-1 items 3.1.2 and/or 3.1.3 as applicable. The service fee is fixed and firm and shall not be adjusted except if the T&I CONTRACTOR does not procure some of the Material Group 1 CONTRACTOR ITEMS for PLATFORM(S) in the PHASE in such event the Procurement Services Fee will be adjusted accordingly and the Initial CONTRACT PRICE for the PHASE shall be adjusted by means of a negative CHANGE ORDER.

3.6.1.4 Adjustment of Initial CONTRACT PRICE for Each PHASE for Material Group 1 CONTRACTOR ITEMS

Immediately following the Approval of the Final Purchase Order Costs by the COMPANY for a PHASE the Initial CONTRACT PRICE for the PHASE shall be adjusted by means of a CHANGE ORDER for the difference between the provisional amount as per Section 3.6.1.1 c) and the Final Approved Purchase Order Costs for the PHASE and adjustment (if any) of the Service Fee for the PHASE.

3.6.1.5 Details and Arrangements for Material Group 1 CONTRACTOR ITEMS

Refer to AGREEMENT sub-article 14.5 (in particular sub-articles 14.5.7 and 14.5.8), Exhibit A Annex-12 and the other terms and requirements for details of T&I CONTRACTOR responsibilities and arrangements for Material Group 1

The T&I CONTRACTOR shall not award any Purchase Order for Material Group 1 CONTRACTOR ITEMS without first obtaining Approval from the COMPANY to do so.

3.6.1.6 Currency for Payments to T&I CONTRACTOR and CONTRACT PRICE Adjustments

All sums, prices and rates in this Exhibit B with regard to Material Group 1 CONTRACTOR ITEMS are priced in United States Dollars (USD).

Likewise, all payments to the T&I CONTRACTOR for Material Group 1 CONTRACTOR ITEMS and adjustments to the Initial CONTRACT PRICES to be for Material Group 1 CONTRACTOR ITEMS shall be made/done so in USD.

If an Approved Purchase Order for Material Group 1 CONTRACTOR ITEMS is priced in a currency other than USD the Purchase Order prices (for the purposes of this CONTRACT) shall be converted to USD for each invoice. The exchange rate to be used shall be the average of the closing buying and selling rates as published by the Bank of Thailand (BOT) on the invoice date.

For clarity, the prices and terms of the applicable Purchase Order including currencies, governing the relationship between the T&I CONTRACTOR and the VENDOR shall not be changed, irrespective of the foregoing requirements.

3.6.2 Material Group 2 CONTRACTOR ITEMS

Supply of Material Group 2 CONTRACTOR ITEMS and associated procurement services and all related items and matters shall be priced in the applicable Exhibit B Annex-1 Lump Sums as per the terms and requirements of this CONTRACT.

### **3.7 Associated Pipeline**

Upon the receipt of the NOTICE TO PROCEED, the T&I CONTRACTOR shall develop and submit the Preliminary MTO for line pipe materials and the estimated installation pipeline length for a PHASE as per the requirements in the applicable NOTICE TO PROCEED and Statement of Requirements (SOR) for COMPANY APPROVAL within fourteen (14) days.

#### **3.7.1 Preliminary MTO for Line Pipe Materials**

The Preliminary MTO for a PHASE shall present the estimated quantities including but not limited to as follows:

- a) Bare & coated line pipes, bends, field joint coating and anode for subsea pipelines, riser, dog legs and topside pipelines,
- b) Contingency for route deviation,
- c) Contingency for construction spare,
- d) Coating and field joint coating PQT,
- e) WPQT and WQT.

The quantities of items 3.8 a) and 3.8 b) as per APPROVED preliminary MTO for a PHASE shall be the basis for the part of procurement services and supply of the Initial CONTRACT PRICE for Associated Pipeline.

For clarity, items 3.8 c), 3.8 d) and 3.8 e) are deemed to be included in the T&I CONTRACTOR's prices and rates and shall not be therefore be compensable separately.

Following COMPANY APPROVAL of preliminary MTO for line pipe materials for a PHASE, the T&I CONTRACTOR shall be, subject to the other terms of this CONTRACT, permitted to place the purchase order for line pipe materials.

#### **3.7.2 Estimated Installation Pipeline Length**

The APPROVED estimated installation pipeline length for a PHASE shall be the basis for the part of transportation and installation of the Initial CONTRACT PRICE for Associated Pipeline.

#### **3.7.3 Adjustment of the Initial CONTRACT PRICE**

The Initial CONTRACT PRICE shall be adjusted after the completion of the offshore installation campaign by means of a CHANGE ORDER for the difference in quantities, if any, between estimate (i.e., APPROVED preliminary MTO and estimated installation pipeline length) and actual as-installed at the applicable prices, conditions and compensation methods in Exhibit B Annex-1.

### **3.8 Free Span Correction**

As referred to Exhibit A Section 12.8.6, the Exhibit B Annex-1 lump sum Initial CONTRACT PRICE shall not include any provisional quantity of free span correction after flooding by grout bags for pipeline. The CONTRACT PRICE shall be adjusted after completion of the offshore campaign by means of a CHANGE ORDER for the difference, if any instruction by COMPANY to perform after flooding free span correction at the applicable rates and prices in Exhibit B Annex-3.

The free span correction is solely attributable to SITE condition shall be compensated. However, in case such activities are required due to defective performance by the T&I CONTRACTOR, all costs and expenses incurred shall be under T&I CONTRACTOR's responsibility.

### **3.9 Lump Sum Price for the Optional Scopes (Exhibit B Annex-2)**

The prices and rates in Exhibit B Annex-2 are for use in the calculation of the Initial CONTRACT PRICE for a PHASE, as applicable and, subject to prior Approval by the COMPANY, for use in the evaluation of CHANGE ORDERS.

### **3.10 Currency**

All prices and rates in this Exhibit B are priced in United States Dollars (USD) only. Likewise, All sums, prices and rates in this Exhibit B are priced in United States Dollars (USD).

All payments to be made by the COMPANY to the T&I CONTRACTOR pursuant to this CONTRACT shall be paid in United States Dollars (USD), or if mandatory in Thai Baht or such other currency as may be required and/or necessary to comply with regulations and/or APPLICABLE LAWS.

If it is necessary to convert from a currency other than USD to USD for CHANGE ORDER(S) or for the payment of separately invoiced "cost" and/or "cost plus fee" amounts to be paid in USD, Thai Baht or such other currency as aforesaid, the exchange rate to be used shall be the average of the closing buying and selling rates as published by the Bank of Thailand (BOT) on the actual date of the cost was occurred.

The foregoing paragraph shall not apply to Material Group 1 CONTRACTOR ITEMS which if priced in a currency other than USD, shall be paid in accordance with the Compensation Method stipulated in Section 2.3 and AGREEMENT article 32.

### **3.11 Thai Value Added Tax**

All prices and rates set out in this Exhibit B and Exhibit B Annexes 1, 2, 3, 4, 5, 6, and 7 do not include for Thai Value Added Tax payable by the COMPANY i.e. that which is levied on payments to the T&I CONTRACTOR and payable in the Kingdom of Thailand (which shall be invoiced separately, in accordance with AGREEMENT sub-article 32.1, if applicable).

### **3.12 Withholding Tax and Statutory Deductions**

Without limitation and without restriction to the requirements of AGREEMENT sub-article 31.1 the COMPANY will deduct Withholding Tax from payments due to T&I CONTRACTOR at the rate or rates required by Department of Revenue of the Kingdom of Thailand also other statutory deductions (if any) required by APPLICABLE LAW if applicable, subject to and in accordance with AGREEMENT sub-article 31.2.

### **3.13 T&I CONTRACTOR's Undertaking**

Without limitation or restriction to the T&I CONTRACTOR's other undertakings made under and or in accordance with this CONTRACT and having regard to the foregoing, the T&I CONTRACTOR hereby undertakes not to request any CHANGE ORDER and not to make any CLAIM whatsoever, on the grounds of; price divisions and price sub-divisions, entirety of the Initial CONTRACT PRICE, further and or other CLAIMS for and / or in respective of any and all CHANGE ORDERS (unless to the extent as may be stated therein), defective description and or omission, all-inclusive nature of the prices, rates and lump sum amounts, the services and facilities priced on a lump sum basis, currency adjustments as per Exhibit B Section 3.11, deduction of Thai Value Added tax, withholding tax and statutory deductions and any other matter whatsoever unless the right to compensation and or payment is stated in writing in this CONTRACT.

**4.0 MARINE SPREAD**

**4.1 Particular Conditions for MARINE SPREAD**

**4.1.1 Mobilization and Demobilization**

The lump sum prices for mobilization in Exhibit B Annex-1 for mobilization and demobilization of the complete MARINE SPREAD to and from the SITE per Offshore Installation campaign regardless of location that MARINE SPREAD mobilization from, or demobilization to. The minimum composition of the parts of the MARINE SPREAD for pricing purposes shall be as specified in Exhibit B Annex-4 Section 3.

**4.1.2 Infield Transit for MARINE SPREAD**

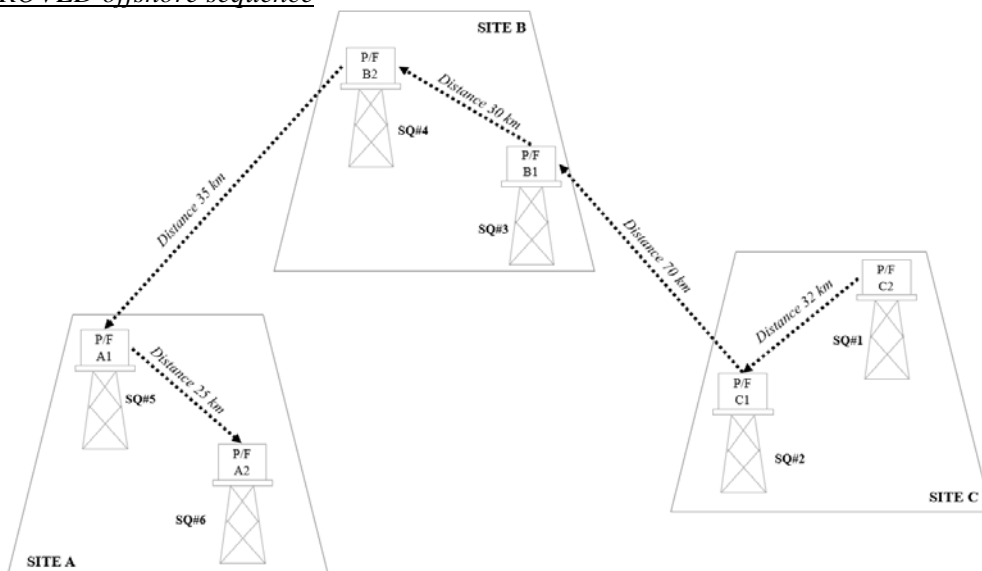
The prices and rates in Exhibit B Annexes 1, 2, 3, 4, 5 and 7 include for infield transit and all movements of MARINE SPREAD between the respective SITE locations except that the applicable Initial CONTRACT PRICE(S) shall be adjusted by means of CHANGE ORDER priced at applicable Exhibit B Annex-4 infield transit rates for the linear distance which is more or less than thirty (30) kilometers between the new Wellhead Platforms as per Approved installation sequence. Only one (1) infield transit shall be considered for each New Wellhead Platform location (regardless of actual movements during the execution).

For clarity, there shall be no adjustment for the infield transit for Pipeline installation, Brownfield Modification and Subsea T&I WORK.

Example of calculation for the distance of the infield transit and all movements between the respective SITE locations for CHANGE ORDER

*If an installation year comprising six (6) wellhead platforms, six (6) subsea pipeline and the APPROVED offshore sequence is as per below. The calculation for the distance of the infield transit and all movements is:*

APPROVED offshore sequence



Infield Transit Calculation

Seq.	Transit Activity	Distance (km)		
		Infield Transit Compensation	Infield <>30 km	Remark
1	Mobilization to SITE "A" at "a1" location	No	N/A	Mobilization
2	Pipeline install for "A1"	No	N/A	Pipeline installation
3	Pipeline install for "A2"	No	N/A	Pipeline installation
4	Pipeline install for "B1"	No	N/A	Pipeline installation
5	Pipeline install for "B2"	No	N/A	Pipeline installation
6	Pipeline install for "C1"	No	N/A	Pipeline installation
7	Pipeline install for "C2"	No	N/A	Pipeline installation
8	Mode change and Platform install at "C2"	No	N/A	No Transit (Mode Change)
9	Platform install at "C1"	Yes	+2	Transit between platform
10	Infield Transit to SITE "B" Platform install at "B1"	Yes	+40	Transit between SITE
11	Platform install at "B2"	Yes	0	Transit between platform
12	Infield Transit to SITE "A" Platform install at "A1"	Yes	+5	Transit between SITE
13	Platform install at "A2"	Yes	-5	Transit between platform
14	Demobilization from SITE "A"	No	N/A	Demobilization
	<b>TOTAL</b>		<b>+42</b>	

From Approved offshore sequence, the distance of the infield transit and all movements between the respective SITE locations where is more or less than thirty (30) kilometers for CHANGE ORDER is calculated as 42.0 kilometers.

4.1.3 Hammers

The prices and rates in Exhibit B Annex-1 include for the provision of the spread of hammers required for the T&I WORK and also for a spare hammer of the largest capacity. If drivability analysis calls for the use of different hammers, the T&I CONTRACTOR shall provide such hammers without price impact to COMPANY.

The size of the hammer will be confirmed during detailed engineering for Generic PLATFORM as per the soil data provided in DESIGN DOSSIER. Upon receipt of COMPANY PROVIDED INFORMATION, i.e., Geotechnical Reports for each platform location, T&I CONTRACTOR shall verify the hammer size accordingly. Notwithstanding the above, if the size of the hammer is required to be changed due to the actual soil condition which is proved to be significantly different from the provided soil data in the DESIGN DOSSIER and impacts hammer selection, it will be dealt with as per article 22 of the AGREEMENT.

4.1.4 MARINE SPREAD Support Activities

The prices and rates Exhibit B Annexes 1, 2, 3, 4 and 7 include for all MARINE SPREAD support activities, including operations outside the country of the SITE and all services relating

thereto including, but not limited to, supply services for material and equipment, supply service for food and MGO, transportation services for T&I CONTRACTOR PERSONNEL, and any other costs and expenses in any way connected with MARINE SPREAD.

#### 4.1.5 Accommodation for COMPANY PERSONNEL Offshore

The T&I CONTRACTOR shall provide all required and necessary services and facilities on board MARINE SPREAD and be compensated as to the extent and in the manner described in Exhibit A Section 6.6, Exhibit A Annex-7 and Exhibit B Annex-7 and otherwise in accordance with this CONTRACT.

#### 4.1.6 Port Duties and Landing Fees

The lump sum prices are fully inclusive of all importation, port duties and landing fees etc. in accordance with AGREEMENT article 23 and 31.

### **4.2 Downtime, Stand-by and Evacuation of the MARINE SPREAD**

#### 4.2.1 General Requirements

The prices and rates in Exhibit B Annex-1 and where applicable the prices and rates stated in Exhibit B Annexes 2, 3, 4, and 7 shall be deemed to include for all downtime and standby of the MARINE SPREAD except as stated in Section 4.2.2, 4.2.3 and 4.2.4 below.

#### 4.2.2 Approved Weather Standby of MARINE SPREAD

The T&I CONTRACTOR shall be compensated by means of a CHANGE ORDER at sixty percent (60%) of the applicable Exhibit B Annex-4 working rates for Approved Weather Standby for Barge/Vessel of MARINE SPREAD when performing T&I WORK at SITE on the critical path (pre-engineering, pre-installation and as-built surveys excluded) calculated as per below section.

The conditions for calculation of Approved Weather Standby for Barge/Vessel are:

- a) The Barge/Vessel of MARINE SPREAD shall mean the composition of each MARINE SPREAD group as per Exhibit B Annex 4 and Weather Standby shall be on a per Barge/Vessel basis.
- b) Weather Standby shall mean the duration that Barge/Vessel of MARINE SPREAD is prevented from performing T&I WORK at the SITE that is on critical path (pre-engineering, pre-installation and as-built surveys excluded) solely because of adverse weather and or sea surface state conditions outside the safe operating limits of such Barge/Vessel.
- c) Weather Standby shall also mean the duration for evacuation, standby and return of Barge/Vessel to SITE caused by Typhoon (see Section 4.2.3 below).
- d) The T&I CONTRACTOR shall record all periods he considers to be Weather Standby together with full details in applicable DPRs signed by COMPANY REPRESENTATIVE.
- e) Approved Weather Standby shall mean periods of Weather Standby Approved by the COMPANY REPRESENTATIVE.
- f) The Approved Weather Standby shall be calculated as the cumulative period(s) a Barge/Vessel performing T&I WORK on the critical path at SITE.
- g) The duration that a Barge/Vessel continue to perform the T&I WORK in the period of 1<sup>st</sup> November to 28<sup>th</sup> February due to the fault or undue delay on the part of the T&I CONTRACTOR shall not be counted as Weather Standby.
- h) The duration that a Barge/Vessel and any other vessel is bunkering shall not be counted as Weather Standby.

- i) The duration that a Barge/Vessel and any other vessel is not fully operable (in full or in part) because of mechanical breakdown or other malfunction or failure shall not be counted as Weather Standby.

#### 4.2.3 Evacuation of the MARINE SPREAD due to TROPICAL CYCLONE

The T&I CONTRACTOR shall be compensated as per Section 4.2.2 above for evacuation of Barges/Vessels of MARINE SPREAD from the SITE instructed by the COMPANY because of TROPICAL CYCLONE.

Evacuation shall be on a per Barge/Vessel basis and shall commence when the Vessel actually sails away from the SITE for the nearest safe location, shall include the period of standby at the safe location (if any) and shall end when the Vessel arrives back at the SITE.

The foregoing shall not apply for any Vessel that does not go directly to the nearest safe location or does not directly return to the SITE from the safe location.

The foregoing shall be the only compensation for, arising from and in connection with evacuation of Vessels of MARINE SPREAD from the SITE TROPICAL CYCLONE.

#### 4.2.4 Approved Operational Standby Time of the MARINE SPREAD

The T&I CONTRACTOR shall be compensated by means of a CHANGE ORDER for Approved Operational Standby of Barge/Vessel of the MARINE SPREAD as the composition of each MARINE SPREAD group as per Exhibit B Annex 4 and priced at ninety percent (90%) of the applicable Exhibit B Annex-4 working rates.

Operational Standby shall mean the period of time Barge/Vessel of the MARINE SPREAD are required to standby solely because of the COMPANY's operational reasons.

Operational standby shall only occur on the direct instruction by COMPANY and shall not include the following:

- a) Weather standby.
- b) FORCE MAJEURE.
- c) Compliance with General Marine Instructions (10009-OLG-WIS-4101) and other similar requirements.
- d) Standby caused by failure, fault, deficiency on the part of T&I CONTRACTOR.
- e) Breakdown and of other downtime of the MARINE SPREAD.
- f) Failure of the T&I CONTRACTOR to comply with the requirement of AGREEMENT sub-articles 28.1 and 28.3, and any other applicable terms of this CONTRACT.

Approved Operational Standby shall mean the periods of Operational Standby approved by the COMPANY REPRESENTATIVE as part of the CHANGE ORDER process.

#### 4.2.5 Decision to Standby and Documenting MARINE SPREAD Downtime

Ultimate responsibility for decision to standby the Barge/Vessel of MARINE SPREAD in respect of weather or unsafe or other conditions rests solely with the vessel Captain. Barge/Vessel of MARINE SPREAD standby shall be categorized and recorded by T&I CONTRACTOR Site Representative at the Offshore SITE in the Daily Progress Reports. Signature of Daily Progress Reports by COMPANY Site Representative shall be for "record purposes only" and shall not constitute approval of Weather Standby and or Operational Standby.

4.2.6 Breakdown and Malfunction of MARINE SPREAD during Standby

The COMPANY's obligations in respect of compensation for the CONSTRUCTION EQUIPMENT shall cease immediately upon the first occurrence of said essential maintenance, equipment failure(s) or mechanical breakdown(s) or unsuitable or unsafe condition of the CONSTRUCTION EQUIPMENT and shall not recommence until such time as the CONSTRUCTION EQUIPMENT restarts the T&I WORK.

**5.0 Marine Gas Oil (MGO)**

**5.1 Base Price for MGO**

The prices and rates in Exhibit B Annexes 1, 2, 3, 4, 5 and 7, applicable to Offshore T&I WORK, have been calculated using a base rate of USD 600 per metric tonne of MGO. This base rate is the net price after deduction of all discounts, handling costs, barge fees etc., taxes and duties.

**5.2 Adjustment (Rise and Fall Mechanism) of Price of MGO**

5.2.1 General

A "rise and fall" mechanism shall apply whereby the amount payable to T&I CONTRACTOR shall be adjusted (up or down) via a CHANGE ORDER upon completion of the offshore T&I WORK for a PHASE taking into account the difference, if any, between the base price of MGO in Section 5.1 and the reference price of MGO in USD per metric tonne paid by the T&I CONTRACTOR for Offshore T&I WORK subject to a maximum quantity as per Section 5.2.2 below. The referenced USD 600 per tonne is for MGO only does not include bunkering costs and/or delivery to offshore.

For clarity, the actual price of MGO paid by the T&I CONTRACTOR shall exclude handling costs, barge fees etc., tax and duties and the exceeding amount of MGO shall not be construed or used either rate or quantity to adjust this CONTRACT PRICE.

This shall result in either an additional payment to the T&I CONTRACTOR or in credit to COMPANY. No markup or fee shall apply. For the avoidance of doubt, no adjustment to all prices and rates in Exhibit B and its Annexes are allowed with respect to the rise and fall of MGO.

For the purposes of the adjustment for the price of MGO only the term "Offshore T&I WORK" shall mean the period in time from the effective date and time of issue of the Marine Surveyor's on-hire report for a vessel when all inspection and preparation activities completed and the vessel is ready to depart the port until the effective date and time of issue of the Marine Surveyor's off-hire report for the vessel which shall be within the first 24 hours from the arrival of the vessel at the port of demobilization.

5.2.2 Maximum MGO Quantity for a PHASE

The T&I CONTRACTOR shall propose the maximum quantity of MGO for a PHASE in accordance with Statement of Requirements (SOR) and Exhibit B Annex-1 Work Package 6 with full supporting details to COMPANY for APPROVAL. The MGO quantity which exceeds this maximum limit will not be considered in the adjustment for the price of MGO.

5.2.3 Adjustment for Price of MGO Procedure

The details for procurement, measurement and price adjustment of MGO shall refer to Exhibit G Annex-8 Adjustment of Price of MGO.



T&I CONTRACTOR shall submit the amount of the adjustment for the price of MGO calculated in accordance with the requirements of Exhibit G Annex-8 immediately after the completion of the offshore installation campaign for a PHASE.

## **6.0 CHANGE ORDERS**

### **6.1 CHANGE ORDER Procedure**

Requests for CHANGE ORDERS shall be administered, evaluated and processed in accordance with the requirements of AGREEMENT article 22, Exhibit G Annex-4, and the other terms and requirements of this CONTRACT and/or as may be otherwise directed by COMPANY.

### **6.2 Evaluation of CHANGE ORDER Amounts**

Subject to the other provisions of this CONTRACT, and COMPANY rights under sub-article 22.3 of the AGREEMENT, the following shall, subject to COMPANY APPROVAL, be used to evaluate the effects of modifications to this CONTRACT on this CONTRACT PRICE:

- a) Summary of Lump Sum Prices (Exhibit B, Annex-1).
- b) Work Unit Rates (Exhibit B, Annex-3).
- c) MARINE SPREAD Rates (Exhibit B, Annex-4).
- d) Time Unit Rates (Exhibit B, Annex-5).
- e) Reimbursable at "Cost" and "Cost Plus Fee" Basis (Exhibit B, Annex-6).
- f) Services and Facilities to COMPANY (Exhibit B, Annex-7).
- g) Adjustment of Price of MGO (Exhibit G, Annex-8).

## **7.0 Invoicing and Payment**

### **7.1 Invoices**

All invoices shall be prepared, calculated and submitted by the T&I CONTRACTOR monthly on a PHASE by PHASE basis in accordance with AGREEMENT article 32, this Exhibit B, and Exhibit G Annex-7 and in accordance with the other requirements of this CONTRACT.

The T&I CONTRACTOR shall separately invoice as follows:

- a) Ninety percent (90%) of the Initial CONTRACT PRICE for a PHASE for the monthly amounts for the actual progress percentage satisfactory achieved calculated in accordance with the requirements of Exhibit G Annex-5 and 7, as documented in a corresponding Work Statement APPROVED by the COMPANY.
- b) Ten percent (10%) of the Initial CONTRACT PRICE for a PHASE in accordance with the Milestone Payment Schedule as per Exhibit B Section 7.3. In this respect separate invoices shall be prepared and submitted for each Payment Milestone satisfactorily achieved as documented in a corresponding Work Statement APPROVED by the COMPANY.
- c) Individual invoices for APPROVED CHANGE ORDERS for which the corresponding T&I WORK has been properly performed and APPROVED as documented in a corresponding Work Statement APPROVED by the COMPANY.

### **7.2 Calculation of the Monthly Progress Percentage**

Each monthly progress percentage shall be calculated in the manner stipulated in Exhibit G Annex-5 and in accordance with the provisions CONTRACT.

### 7.3 Milestone Payment Schedule

The payment condition for Milestone Payment Schedule under this section shall be considered based on full compliance of condition as stated in each milestone, no partial payment/progress shall be allowed.

No.	Description of Payment Milestones	Milestone Percentage
1.	APPROVAL by the COMPANY of the Early T&I CONTRACTOR DOCUMENTS as per Exhibit C Section 10.0 and the receipt by the COMPANY of a performance bank guarantee in accordance with sub-article 33.1 of the AGREEMENT.	0.50%
2.	Issuance and acknowledgement by the applicable VENDORS of all Purchase Orders for T&I CONTRACTOR's procured Long Lead Items as identified in the APPROVED Procurement Plan	0.50%
3.	Delivery of all T&I CONTRACTOR's procured Long Lead Items at T&I WORKSITE	1.00%
4.	Issuance of HANDOVER CERTIFICATE for all Wellhead Platform, Associated Pipeline and Tie-in Work in a PHASE	4.00%
5.	Rectification and clearance of all punch list items of all Wellhead Platforms, Associated Pipelines and Tie-in Works in a PHASE at Offshore	2.00%
6.	Effective Date of PROVISIONAL ACCEPTANCE CERTIFICATE for a PHASE	2.00%
	<b>TOTAL</b>	<b>10.00%</b>

### 7.4 Payment

Payment of amounts from COMPANY to the T&I CONTRACTOR shall be made in accordance with article 32 of the AGREEMENT, this Exhibit B and the other applicable provisions on this CONTRACT.

### 8.0 Liquidated Damages

#### 8.1 Liquidated Damages for Late Completion of the T&I WORK

If the T&I CONTRACTOR should fail to complete the applicable required T&I WORK on or before the applicable required COMPLETION DATE as may have been modified by CHANGE ORDER, the COMPANY shall have the right to apply liquidated damages for late completion of required T&I WORK pursuant to and in accordance with sub-article 34.1 of the AGREEMENT, as follows:

Required COMPLETION DATE		Amount of Liquidated Damages
Reference	Description	
CD1A	Effective date of the HANDOVER CERTIFICATE for Part 1 the new Wellhead Platform <sup>(Note-1)</sup> of the first PLATFORM for a PHASE <sup>(Note-2)</sup>	USD 125,000 for each day of delay <sup>(Note-1)</sup>

Required COMPLETION DATE		Amount of Liquidated Damages
Reference	Description	
CD1B	Required effective date of the HANDOVER CERTIFICATE for Part 2 the Associated Pipeline and Tie-in WORK <sup>(Note-1)</sup> of the first PLATFORM in a PHASE <sup>(Note-2)</sup>	USD 50,000 for each day of delay <sup>(Note-3)</sup>
CD1C	Required effective date of the HANDOVER CERTIFICATE for Part 3 the Brownfield Modifications <sup>(Note-1)</sup> of the first PLATFORM in a PHASE <sup>(Note-2)</sup>	USD 25,000 for each day of delay <sup>(Note-3)</sup>
CD2A	Required effective date of the HANDOVER CERTIFICATE for Part 1 the new Wellhead Platform <sup>(Note-1)</sup> of the last PLATFORM in a PHASE	USD 125,000 for each day of delay <sup>(Note-1)</sup>
CD2B	Required effective date of the HANDOVER CERTIFICATE for Part 2 the Associated Pipeline and Tie-in WORK <sup>(Note-1)</sup> of the last PLATFORM for a PHASE	USD 50,000 for each day of delay <sup>(Note-3)</sup>
CD2C	Required effective date of the HANDOVER CERTIFICATE for Part 3 the Brownfield Modifications <sup>(Note-1)</sup> of the last PLATFORM in a PHASE	USD 25,000 for each day of delay <sup>(Note-3)</sup>
CD3	Required effective the HANDOVER CERTIFICATE for the new FSO Pipeline, PLEM and Tie-ins (between PLEM and FSO Pipeline)	USD 200,000 for each day of delay <sup>(Note-4)</sup>
CD4	Required effective date of the HANDOVER CERTIFICATE for new FSO Flexible Pipe Installation and Tie-in at Central Processing Platform	USD 200,000 for each day of delay <sup>(Note-4)</sup>

Note-1 Part of a PLATFORM as per Section 3.1 of Exhibit C

Note-2 The sequence of PLATFORMS in a PHASE shall be as stated by the COMPANY in the applicable NOTICE TO PROCEED.

Note-3 For clarity, the right of the COMPANY to apply liquidated damages for delay shall apply respectively, as applicable in the event of late completion, to each required COMPLETION DATE individually.

Note-4 Calculated as difference in days between the actual and required COMPLETION DATES.

## 8.2 Liquidated Damages for Late Completion: Stand-by of the Drilling Rig

The COMPANY shall also have the right to apply liquidated damages for each day the Drilling Rig chartered by the COMPANY is actually prevented from accessing the new Wellhead

Platforms beyond the relevant required COMPLETION DATE. Such prevention may include standby of the drill rig. Supporting evidence of such prevention and actual Drilling Rig standby shall be provided by the COMPANY. COMPANY rights under this Exhibit B Section 8.2 are in addition to the COMPANY’s rights under Exhibit B Section 8.1.

Description	Amount of Liquidated Damage for Each Day of Standby
Drilling Rig stand-by	USD 100,000

For clarity, the soil settlement is required approximately one (1) month after the PLATFORM installation completion before Drilling Rig approach. In case that T&I CONTRACTOR delay completion of the PLATFORM installation completion and also causing the Drilling Rig standby, both liquidated damages in section 8.1 and 8.2 shall be applied.

**8.3 Liquidated Damages for Unauthorized Substitution and/or Removal KEY PERSONNEL**

If any KEY PERSONNEL is substituted or removed in violation of the requirements of sub-article 25.2 of the AGREEMENT the COMPANY shall have the right pursuant to sub-article 34.3 of the AGREEMENT, subject to the limitation in Section 8.7 of this Exhibit B, to apply liquidated damages in respect of such default as follows:

Unauthorized Removal and or Substitution of KEY PERSONNEL	Amount of Liquidated Damage to apply per Occurrence
Any Level 1 Key PERSONNEL listed in Exhibit K	USD 50,000
Any Level 2 Key PERSONNEL listed in Exhibit K	USD 25,000

For the purposes of the application of liquidated damages for substitution and/or removal of KEY PERSONNEL, the categories and details of the relevant Key PERSONNEL are listed in Exhibit K or one as may be subsequently approved by the COMPANY. The term KEY PERSONNEL shall have the meaning ascribed to it in AGREEMENT sub-article 2.1.

**8.4 Liquidated Damages for Unauthorized Removal and/or Substitution of a KEY VESSEL**

If the T&I CONTRACTOR should remove or substitute a KEY VESSEL in violation of sub-article 26.4 of the AGREEMENT, the COMPANY shall have the right pursuant to sub-article 34.4 of the AGREEMENT, subject to the limitation in Section 8.7 of this Exhibit B, to apply liquidated damages for each such removal or substitution follows:

Unauthorized Substitution of KEY VESSEL by T&I CONTRACTOR	Amount of Liquidated Damage
Derrick Lay Barge/Vessel, Heavy Lift Barge/Vessel and/or Pipe Lay Barge/Vessel	USD 1,000,000 per occurrence
Another Barge/Vessel	USD 500,000 per occurrence

For the purposes of the application of liquidated damages for removal and/or substitution of KEY VESSEL the details of such KEY VESSELS are listed in Exhibit K or as may be subsequently approved by the COMPANY. The term KEY VESSEL shall have the meaning ascribed to it in AGREEMENT sub-article 2.1.

**8.5 Not used**

**8.6 Liquidated Damages for Unauthorized Change and/or Addition of a T&I Engineering Office Location**

If the T&I CONTRACTOR should change an Engineering Office location, listed in Exhibit K, or as may be subsequently approved by the COMPANY, or if the EPC CONTRACTOR should add Engineering Office, such Engineering Offices not being a major SUBCONTRACTOR's Engineering Office, the COMPANY shall have the right to apply liquidated damages as per sub-article 34.6 subject to the limitation in Section 8.7 of this Exhibit B in respect of each such change.

Description	Amount of Liquidated Damage to apply for Each Change and for Each Addition.
Change of Engineering Office Location and/or Addition of an Engineering Office	USD 300,000

**8.7 Limitation of Liability for Liquidated Damages**

The T&I CONTRACTOR's total aggregate liability under this CONTRACT for liquidated damages shall be as follows:

- a) The combined maximum aggregate liability (i and ii) of the T&I CONTRACTOR for:
  - i) Later than required completion of the T&I WORK as per sub-article 34.1 of the AGREEMENT and Section 8.1 of this Exhibit B, and
  - ii) Standby of drilling as per sub-article 34.2 of the AGREEMENT and Section 8.2 of this Exhibit B,

shall be capped so as not to exceed ten percent (10%) of the Initial CONTRACT PRICE of an applicable PHASE on a PHASE by PHASE basis.
- b) The maximum aggregate liability of the T&I CONTRACTOR for unauthorized removal and/or substitution of Key PERSONNEL as per sub-article 34.3 of the AGREEMENT and Section 8.3 of this Exhibit B, shall be capped so as not to exceed seven hundred and fifty thousand United States Dollars (USD 750,000), for this CONTRACT.
- c) The maximum aggregate liability of the T&I CONTRACTOR for unauthorized removal and/or substitution of KEY VESSEL(S) as per sub-article 34.4 of the AGREEMENT and Section 8.4 of this Exhibit B, shall be capped so as not to exceed two million United States Dollars (USD 2,000,000.00), for this CONTRACT.
- d) The maximum aggregate liability of the T&I CONTRACTOR for unauthorized change of Engineering Office Location and/or addition of an Engineering Office, as per sub-article 34.6 of the AGREEMENT and Section 8.5 of this Exhibit B, shall be capped so as not to exceed one million five hundred thousand United States Dollars (USD 1,500,000) per annum.

**9.0 Not Used**

**10.0 COMPANY REPRESENTATIVE Assessment**

Notwithstanding any other provision in this CONTRACT should there be any difference or disagreement between the PARTIES with regard to the interpretation, application or meaning of this Exhibit B, or the other provisions of this CONTRACT, with regard to an initial CONTRACT PRICE or part thereof, any adjustment of this CONTRACT PRICE to be made by CHANGE ORDER, or with regard to invoicing and payment, it is hereby agreed the decision of COMPANY REPRESENTATIVE shall prevail and be final and binding on the PARTIES subject to the provisions of article 54 of the AGREEMENT.