EXHIBIT V

**DIRECTIVES FOR ACQUISITIONS**

**FPSO PETROBRAS XX (P-XX)**

**SUMMARY**

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# GENERAL

* 1. These directives define the requirements to be complied by SELLER in carrying out at least the following stages of procurement process for all system, equipment, and materials within SELLER’s Scope of Supply:

1. Purchasing;
2. Expediting;
3. Survey Inspection;
4. Quality Audit;
5. Certification, including Classification Society Certification whenever applicable;
6. Painting, Preservation, Packing and Transportation;
7. Customs Clearance;
8. Delivery of Materials;
9. Registration and Control of Punch List Items;
10. Inventory;
11. Documentation;
12. Technical Support;
13. Training for BUYER Operation and Maintenance Team (see I-ET-3010.2D-1200-919-P4X-001 - REQUIREMENTS FOR VENDORS TRAINING CONTENT AND PROGRAM);
14. Warranty.
    1. SELLER Procurement Team shall be mobilized since Agreement Effective Date.
    2. SELLER shall use a single computer-based system for the management, control and integration of all materials, services and activities related to the Project, according to Exhibit XVI - COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM.
    3. Unless defined otherwise herein, all terms applied on this exhibit shall have the meanings defined in the Agreement.
       1. The term “material” or “materials” applied herein is to be understood as a generic expression covering equipment, instruments, materials, consumables, spare parts etc.
    4. SELLER will be responsible for supplying all materials to be incorporated to the UNIT, except those clearly mentioned in the Agreement and its Exhibits that are under BUYER’s responsibility to supply. Prototype, mature, refurbished, obsolete, phased out, discontinued or with an "End-of-Life Notice" equipment is not to be accepted for any part of a system/package of contract scope.
       1. SELLER’s Scope of Supply includes all temporary materials, commissioning spare parts (including filter elements), special tools, Capital Spares and any consumables (including lube oils, diesel and water), hydraulic oils and greases for flushing and operation first filling required for construction, preservation, commissioning, pre-operation and start-up of the UNIT’s systems, according to the requirements described in Exhibit VIII - DIRECTIVES FOR COMMISSIONING.
    5. SELLER shall purchase, as much as possible, standard and same brand for equipment and general fittings within same category, so as to standardize installation, facilitate maintenance and avoid variety of spare parts.
    6. SELLER shall submit within thirty (30) Days after Agreement Effective Date, the Procurement Plan, including at least purchasing, expediting, vendor documentation, customs clearance, delivery, inspection, materials, equipment, commissioning spare parts, special tools and Capital Spares, technical support, training, storage and transportation. The Procurement Plan shall be compatible with and logically reflected within Exhibit VI – DIRECTIVES FOR PLANNING AND CONTROL.
       1. The Procurement Plan shall include all phases of the Procurement Process, since the issuance of the Material Requisitions until delivery at SELLER’s Job Sites, detailing at least the following processes and sub-processes:
15. Issuance of the Technical Documents;
16. Issuance of the Material Requisitions and Request for Proposals;
17. Receipt of Vendors’ Proposals;
18. Analysis and approval of Proposals;
19. Issuance of the Purchase Orders;
20. Kick-Off Meeting with Vendors/Manufacturers;
21. Pre-Inspection Meeting (PIM);
22. Expediting, inspections and acceptance tests;
23. Delivery Logistics;
24. Customs Clearance;
25. Strategy to comply with Project Schedule;
26. Strategy for Long Lead Items;
27. Technical Support during onshore and offshore phases;
28. Training for BUYER’s Operation and Maintenance Team (see I-ET-3010.2D-1200-919-P4X-001 - REQUIREMENTS FOR VENDORS TRAINING CONTENT AND PROGRAM);
29. Storage and Preservation.
30. Vendor manufacturing progress report.
    * 1. Pre-Inspection Meeting (PIM) shall be held at the factory where the equipment, material or system will be manufactured. SELLER shall always invite BUYER, who reserves the right to take part of attend it or not.
      2. For the expediting, factory inspections and factory acceptance tests of materials under SELLER’s scope of Supply, only qualified inspectors and/or technical professionals will be accepted to execute such activities, in accordance with Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM.
      3. BUYER, at its sole discretion, can follow and witness all procurement phases of the materials under SELLER’s Scope of Supply at any sites, including vendors and sub-vendors facilities. In this way, SELLER shall notify the BUYER about any technical meeting and/or inspection with Suppliers and Sub-suppliers. BUYER may request to follow and witness factory inspection and acceptance tests activities presentially and remotely. The Remote Inspection may be Synchronous or Asynchronous, to be decided during Inspection and Test Plan (ITP) analysis. All the infrastructure and resources required to follow and witness the inspection shall be provided by SELLER, what it is included but not limited to internet connection, field operator(s) (personnel to perform the synchronous or asynchronous remote inspection), smartphones, SMART GLASSES and Pictures/Video Cameras.
         1. Synchronous Remote Inspection: activities in which the field operator, using a mobile device (SMART GLASSES, smartphone, PDA - Personal Digital Assistant, etc.) connects to a remote inspector(s), usually on a computer, to share information during inspection, commissioning, operation or maintenance, in a live session.
         2. Asynchronous Remote Inspection: activities carried out through customized forms, workflows or checklists elaborated by BUYER and sent to SELLER execution. These jobs are executed by SELLER using mobile devices (SMART GLASSES, smartphone, PDA, etc.) in online or offline mode. The activities evidence asked in the form are uploaded by SELLER and make available to BUYER.
    1. All UNIT equipment and systems that requires PLC (Programmable Logical Controller), HMI (Human Machine Interface), servers, workstations, industrial switches, special tools according to their respective Technical Specification and related documents, shall be supplied with the complete software licenses, as well as their access passwords to all functionalities, for all kinds of possible programming users. All licenses shall be softkey type and shall comply with cybersecurity aspects. Any deviation shall be submitted to BUYER approval before purchase order signature. After the end of onshore and/or offshore commissioning phase, all licenses shall be delivered to BUYER.
    2. In order to allow configuration, maintenance and troubleshooting, vendors or sub-vendors shall supply specific devices for access such as cables, connectors, special tools, converters, suitable notebook for the application properly licensed, HART communicator or similar device, cable analyzer, network tools for analyzing and certifying according to the Technical Specification and related documents. These pieces of equipment shall be delivered brand new to BUYER. Vendors or sub-vendors shall supply all backups after finishing the onshore and/or offshore commissioning, as Exhibit VIII - DIRECTIVES FOR COMMISSIONING.
    3. SELLER shall plan and control the use of all software licenses during all phases of the project, issuing, in a monthly basis, a report of software licenses status. SELLER shall supply and manage a software for managing, transferring, testing, repairing licenses keys. After the end of onshore and/or offshore commissioning phase, this program shall be transferred to BUYER. SELLER shall issue documentation presenting, for each system, all information about special cables, programmers, converters and licensed software to allow configuration, maintenance and troubleshooting.
    4. All communications and documentation processed between BUYER and SELLER, even when it is concerning to Vendors, shall be in English language.
    5. For all radioactive materials and equipment supplied with the UNIT, SELLER shall comply with applicable CNEN (“Comissão Nacional de Energia Nuclear”, part of Ministry of Science, Technology and Innovation) requirements and is responsible for the collection, management, handling, temporary storage and final disposal of any contaminated waste, including radioactive sources until UNIT handover.
       1. SELLER is fully responsible to obtain the translated version of the latest CNEN standards and requirements.

# APPLICABLE DOCUMENTS

* 1. I-ET-3010.00-1200-956-P4X-002 – GENERAL PAINTING.
  2. I-ET-3010.00-1200-251-P4X-001 – REQUIREMENTS FOR BOLTING MATERIALS.
  3. I-ET-3000.00-1350-94P-P4X-002 – DIGITAL ENGINEERING TECHNICAL REQUIREMENTS FOR DETAILED DESIGN.
  4. Not Applicable
  5. I-ET-3010.00-1200-916-1AL-001 – REQUIREMENTS FOR QUALITY AUDITS IN THE FPSO SUPPLY CHAIN
  6. I-ET-3010.00-1200-978-P4X-005 – REQUIREMENTS FOR MATERIALS TRACEABILITY
  7. NI-381 – PETROBRAS.
  8. Classification Society, Applicable Laws and Standards, Flag Authority and Governmental Authorities.
  9. Brazilian Regulatory Standards (NRs) from Ministry of Labour and Employment: NR-1, NR-3, NR-4, NR-5, NR-6, NR-7, NR-8, NR-9, NR-10, NR-11, NR-12, NR-13, NR-14, NR-15, NR-16, NR-17, NR-18, NR-19, NR-20, NR-21, NR-22, NR-23, NR-24, NR-25, NR-26, NR-28, NR-29, NR-30, NR-31, NR-32, NR-33, NR-34, NR-35, NR-36 and NR-37.
     1. The Brazilian Regulatory Standards (NRs) updated version shall be downloaded on the following Brazilian Government website:

https://www.gov.br/trabalho-e-emprego/pt-br/assuntos/inspecao-do-trabalho/seguranca-e-saude-no-trabalho/ctpp-nrs/normas-regulamentadoras-nrs

* + 1. SELLER is fully responsible to obtain the translated version of the NRs. In case of divergency between the translated version to the original version, the original version (Brazilian Portuguese language) shall prevail.
    2. SELLER shall also comply with the following technical specifications in addition to the Brazilian Regulatory Standards NR-12, NR-13, NR-17 and SGSO. SELLER shall also comply with the requirements for equipment under SPIE control.
       1. NR-12: I-ET-3010.00-1200-970-P4X-012 – COMPLIANCE WITH NR-12 REQUIREMENTS.
       2. NR-13: I-ET-3010.00-1200-970-P4X-013 – COMPLIANCE WITH NR-13 AND SPIE REQUIREMENTS.
       3. NR-17: I-ET-3000.00-5400-947-P4X-012 - HUMAN FACTORS ENGINEERING (HFE), I-ET-3010.2D-1400-196-P4X-001 - ERGONOMICS REQUIREMENTS FOR TOPSIDE. I-ET-3010.2E-1350-196-P4X-002 - ERGONOMICS REQUIREMENTS FOR HULL and I-MD-3010.2D-1200-940-P4X-008 - DESCRIPTIVE MEMORANDUM – ERGONOMICS
  1. I-ET-3010.2D-1200-919-P4X-001 – REQUIREMENTS FOR VENDORS TRAINING CONTENT AND PROGRAM
  2. I-ET-3010.00-1200-955-P4X-001 – WELDING
  3. I-ET-3010.00-1200-970-P4X-003 – REQUIREMENTS FOR PERSONNEL QUALIFICATION AND CERTIFICATION
  4. I-ET-3010.00-1200-970-P4X-004 – NON-DESTRUCTIVE TESTING REQUIREMENTS FOR METALLIC AND NON-METALLIC MATERIALS
  5. I-ET-3010.00-1200-972-P4X-006 – REQUIREMENTS FOR MANUFACTURING SURVEY INSPECTION
  6. I-ET-3010.00-1200-200-P4X-115 – REQUIREMENTS FOR PIPING FABRICATION AND COMMISSIONING
  7. I-ET-3010.00-1200-200-P4X-116 – REQUIREMENTS FOR BOLTED JOINTS ASSEMBLY AND MANAGEMENT

# MATERIAL REQUISITIONS

* 1. SELLER shall include the information listed below in all material requisitions. This information shall also be listed in the respective purchase orders, to be complied with by the suppliers.

1. The scope of supply (detailing, at least, subsystem (SSOP), TAG, description and Identification Code of the material as specified at Engineering Documents and Integrated Management System);
2. Instructions for the technical bids;
3. Classification and certification (the Classification and/or Certification requirements shall be included in all contracts between SELLER and the vendors and/or the sub-vendors. SELLER shall issue an authorization to Classification Society allowing direct and full access of BUYER to all information regarding certification of project and fabrication of equipment and materials);
4. Commissioning spare parts, Capital Spares, consumables, tools and Special tools for Assembly, Commissioning and start up, according to Exhibit VIII - DIRECTIVES FOR COMMISSIONING and equipment technical documentation.
5. Spare parts list document recommended for two (2) years of operation, including a detailed part description, lay-out and sectional drawings indicating the location of part and TAG/reference identification (original manufacturer part number) and subsystem (SSOP);
6. Center of gravity information and lifting plan;
7. Weight limit, maximum dimensions, drawings, documents, advanced instruction, maintenance, operation and installations manuals in Brazilian Portuguese language;
8. List of sub-vendors;
9. Computer aided designs;
10. Warranty conditions;
11. Technical support;
12. Training, according to Exhibit VIII - DIRECTIVES FOR COMMISSIONING (see I-ET-3010.2D-1200-919-P4X-001 - REQUIREMENTS FOR VENDORS TRAINING CONTENT AND PROGRAM);
13. Factory Inspections;
14. Quality assurance requirements;
15. Quality Plan;
16. Motion requirements;
17. Packing and transportation;
18. Delivery conditions;
19. Commissioning requirements;
20. Preservation instructions, also for long-term storage;
21. All Brazilian Regulatory Standards (NR), according to item 2.9 and its subitems, as well as any applicable rule and regulation;
22. Painting requirements in accordance with BUYER General Painting Technical Specification (I-ET-3010.00-1200-956-P4X-002);
23. Construction & Assembly Minimum Requirements, where applicable;
24. Reference List of similar installations;
25. List of Representatives in Brazil and local Service Centers, if available;
26. Directives for Acquisitions, including the Vendors List;
27. Directives for Product Development;
28. Expediting conditions;
29. Commissioning Site Conditions (location, climate, ambient temperature range, relative humidity, average salinity);
30. Operation Site Conditions (location, climate, ambient temperature range, relative humidity, average salinity).
    1. Technical Support
       1. For all equipment and systems, SELLER shall request and guarantee the attendance of vendors’ technicians in order to assist SELLER and BUYER during assembling, onshore and offshore commissioning, start-up and operation specialized support for each equipment, according to the contractual schedule. SELLER must establish the minimum technical support manhours during assembly, onshore and offshore commissioning and start-up for each piece of equipment, subsystem or system, including manhours for supervision of preservation activities whenever applicable. The list of these minimum hours must be informed to BUYER before Purchase Order signature. SELLER shall also request and guarantee the vendors manhours for operation specialized support phase according to Appendix 2 of Exhibit VIII - DIRECTIVES FOR COMMISSIONING.
          1. SELLER shall submit to BUYER for approval, within one hundred and eighty (180) Days after Agreement Effective Date, the list and foreseen schedule for vendors and sub-vendors’ technical support. The technical support services will take place at SELLER’s job sites, integration job site and offshore final location in Santos Basin. Each vendor will be required to describe in detail the activities that are to be supervised by its technicians through assembling, commissioning, start-up and operation specialized support phase.
             1. SELLER shall submit the foreseen schedule for technical support considering the current Wave of Rolling Wave Planning as set forth in Exhibit VI – DIRECTIVES FOR PLANNING AND CONTROL and update it accordingly whenever a subsequent Rolling Planning Wave is issued.
          2. SELLER shall take into account that manhours of vendors and sub-vendors’ technical support that will be used during the phases of assembling, commissioning, start-up and operation specialized support, mentioned in section 3.2.1, shall be included in the lump sum price.
          3. SELLER shall control and guarantee that the amount of hours in the Vendor purchase order is appropriate to perform the technical support services during the phases of assembling, commissioning, start-up and operation specialized support, onshore and offshore including supervision for preservation activities whenever applicable.
       2. SELLER shall provide all necessary Personal Protective Safety Equipment for their workers.
    2. Training for BUYER Operating and Maintenance Teams
       1. SELLER and its respective vendors shall provide training to BUYER technicians, related to Operating and Maintenance teams as per I-ET-3010.2D-1200-919-P4X-001 - REQUIREMENTS FOR VENDORS TRAINING CONTENT AND PROGRAM).
       2. SELLER shall be responsible for the technicians who will conduct the training, including all associated costs.
       3. Training shall comply with SGSO - Resolution of the National Agency of Petroleum, Natural Gas and Biofuels - ANP No. 43/2007 - Operational Safety Management System and IOGP - International Association of Oil & Gas Producers - Report 454 - Human factors engineering in projects requisites.
    3. Vendor Documentation
       1. In additional of all requirements of this Exhibit V, SELLER’s vendors, sub-vendors and subcontractors shall also fully comply with the requirements of Exhibit III – DIRECTIVES FOR PRODUCT DEVELOPMENT.
       2. SELLER shall issue Data Book to be delivered to BUYER five (5) tagged USB flash drives copies and two (02) SSD or other electronic storage media, including all design and construction documentation on all materials, including from package units, purchased by SELLER, vendors, sub-vendors and subcontractors, broken down into five (5) parts and containing at least the following details:
          1. Tagged USB flash drive, SSD or other storage media of data books shall be issued and delivered to BUYER in final version, previously analyzed and approved by SELLER and accepted by BUYER.
          2. BUYER may request 1 (one) printed copy of some Data Books due to law attendance, regulatory agencies exigences, legal conformity, classification society rules or any other international or Brazilian applicable regulation. In these cases, SELLER shall delivery the printed copies without any cost to BUYER.
          3. The first part (section 1) shall list all documents, certificate drawings, data sheets, technical specifications, performance curves and calculation memorandum, as follows:
31. A list of documents;
32. A manufacture and inspection schedule;
33. Data sheets with dimensions and base loads for all equipment;
34. List of spare parts including the reference identification (containing its complete technical specification and original manufacturer part number), drawings, dimensions and weight, quantity per equipment, type of material and coating / surface treatment, if applicable; broken down into two (2) parts. The first part shall list all supplied spare parts for onshore and offshore commissioning and start-up, according to Exhibit VIII - DIRECTIVES FOR COMMISSIONING. The second part shall list spare parts for two (2) years of operation;
35. Cross sectional drawings or "exploded views" showing all components of the equipment and in a way it is possible to identify the recommended spare parts.
36. The general arrangement of the equipment, with design and operation data regarding the maintenance area, connections, and skid limits, dimensions, weight and gravity center of each equipment (for empty equipment, in operating and testing conditions), type of material and coating / surface treatment, description of parts and materials;
37. Construction drawings of equipment, the structure and piping;
38. Construction documents;
39. Cross-sectional drawings, including a list of every item, materials and original manufacturer part numbers;
40. List of all utilities consumed;
41. Calculation sheets for the design process;
42. Drawings of nameplates, including the nameplates in Brazilian Portuguese language, according to NR-12 and NR-13 nameplates requirements;
43. Mechanical calculations (including wave and wind loads);
44. An analysis of all weights conditions (considering the location of the saddles);
45. An analysis of local stress due to nozzle loads (if required);
46. An analysis of local stress due to discontinuities (if required);
47. A fatigue analysis, if required;
48. Weight and gravity center data sheet;
49. Inspection and test plan (ITP);
50. Manual for shipping protection, erection and installation (Lifting Plan);
51. Drawings of all instruments, together with diagrams (logic, loop, cause versus effect), calculation and data sheets, lists, specifications, manuals, etc.;
52. List of water sprays nozzles, including water flow rates and discharge pressures;
53. Drawings of all piping, including supports, isometrics, ladders and platforms, as well as a list of all materials;
54. Drawings and diagrams of the electrical system (including one line, function and interconnection), together with calculations, data sheets, specifications and manuals;
55. List of Lube/Hydraulic Oils;
56. 3D Model according to I-ET-3000.00-1350-94P-P4X-002 – DIGITAL ENGINEERING TECHNICAL REQUIREMENTS FOR DETAILED DESIGN and Exhibit III – DIRECTIVES FOR PRODUCT DEVELOPMENT;
57. List of all special tools, including the reference identification (containing its complete technical specification and original manufacturer part number), drawings, type of material and coating / surface treatment, if applicable, according to Exhibit VIII - DIRECTIVES FOR COMMISSIONING.
58. Hydrostatic test report;
59. MAWP (Maximum Allowable Working Pressure) calculation memory and the minimum thicknesses of the components;
60. All procedures used during manufacturing and/or assembly, such as: welding procedures specification (WPS), welding procedure qualification records (PQR), non-destructive testing (NDT) procedures, procedures for applicable heat treatments, if any, and procedures for hydrostatic testing, painting procedures and others.
61. Drawings: assembly; body details (shell and covers); welding details; connections; appurtenances, supports of internal parts and pressure vessel supports; piping and instrumentation diagram (P&ID).
62. Relief capacity certificates for all relief and safety valves installed to protect equipment designed according to ASME BPVC Section VIII divisions 1 or 2, or other pressure vessel codes;
63. Pressure safety valves and other pressure relief devices data sheet, indicating the valve set point (opening pressure calibration) and the calibration records issued by the manufacturer, as well as the pressure relief device certification.
64. Calibration certificate for pressure relief devices and pressure indicators. The certificates for pressure safety valves and rupture disks shall not be issued per batch, it must be individual per each item.
    * + 1. The second part (section 2) shall include construction, maintenance and operating manuals, instructions for preservation and commissioning, and all catalogs, including the sub-vendors, according to item 4.10, and shall be handed to BUYER, sixty (60) Days prior to Equipment Delivery.
        2. The third part (section 3) shall include all certificates of materials and equipment, certificates of electrical cables and equipment to hazardous areas, all tests, traceability, destructive and non-destructive examinations, test reports (including FAT – Factory Acceptance Test), certificates and reports of classification society, calibration certificates for instruments, certificates of radioactive parts, procedures for welding qualifications and welding processes, according to Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM.
        3. The fourth part (section 4) shall contain the documentation requested by Brazilian Regulatory Standard NR-13, subdivided for equipment. The package of documents, called "NR-13 Data Book", shall be prepared and signed by a Legally Qualified Professional (“Profissional Legalmente Habilitado”) registered with the Brazilian Engineering Council ("CREA"). For the equipment not following NR-13 requirements, but included on the SPIE control, the documentation required shall be present in this section.
        4. The fifth part (section 5) shall contain the documentation requested by Brazilian Regulatory Standard NR-10, subdivided for equipment. The package of documents, called "NR-10 Data Book", shall be prepared and signed by a Skilled Professional (Profissional Habilitado) registered with the Brazilian Engineering Council ("CREA").
      1. Prior to Equipment and Systems start up, SELLER shall deliver to BUYER the “as built” documents in accordance with the guideline on Exhibit III - DIRECTIVES FOR PRODUCT DEVELOPMENT.
      2. SELLER, Suppliers and Sub-suppliers, must keep a record of such documentation for 5 years, after BUYER issue the Final Acceptance Certificate.
      3. SELLER shall comply with the document workflow schedule defined in Exhibit III – DIRECTIVES FOR PRODUCT DEVELOPMENT.
      4. Every document delivered to BUYER from SELLER, Subcontractors, Classification Society, MWS, Vendors and sub-vendors shall be also delivered in electronic format (original version and PDF version) to be included at BUYER PEDM (Petrobras Electronic Document Manager) database.
    1. Warranties for Equipment and Materials
       1. With reference to “INSPECTION AND WARRANTY”clause of the Contract/Agreement, besides complying with purchase orders requirements, SELLER shall make sure that all warranties relating to materials and equipment supplied by the vendors and by their subcontractors, covering the performance of such materials, shall be issued not only in the name of the SELLER but also in the name of BUYER so that the latter shall have the same benefits and protection that such warranties provide to the SELLER.

* + 1. All equipment and respective components or accessories, including those manufactured by subcontractors of the main vendor, shall be warranted for a period of ten (10) months from the date of signature of the Term of Transference and Acceptance of System (TTAS-2). This condition is exclusively applicable for equipment and respective components or accessories and shall not modify any other provision stated in aforementioned clause of the Contract/Agreement. With reference to aforementioned clause of the Contract/Agreement, the deviations identified during warranty periods shall be immediately treated by SELLER.The warranty is to cover any defect or fault of design, manufactured, fabrication, painting, raw material or labor. SELLER shall be responsible to renew or extend the warranty on equipment that loses the warranty before this period.
    2. With reference to aforementioned clause of the Contract/Agreement, the SELLER shall warrant and rectify, for all equipment and materials, all defects or faults in design, performance, manufacture, painting, raw material and labor will be rectified at once, as soon as they have been detected, without any onus to BUYER, by repair or supply, transportation and installation of new equipment, parts or accessories, whenever necessary. The documentation impacted shall be updated by SELLER.
    3. With reference to aforementioned clause of the Contract/Agreement, in case of substitution of equipment or its part covered by warranty, the equipment and/or parts thus replaced shall be guaranteed for a period of twelve (12) months, as from the date of such substitution.
  1. Commissioning Spare Parts, Special Tools, Capital Spares and Spare Part list recommended for 2 (two) years of operation.
     1. SELLER shall procure commissioning spare parts, special tools and Capital Spares, included in the lump sum contract price, as part of the purchase orders for materials and equipment, as following:

a) All commissioning spare parts and consumables required by Exhibit VIII – DIRECTIVES FOR COMMISSIONING, as well others parts also recommended by equipment and materials’ vendors, for assemble, pre-commissioning, testing, commissioning, pre-operation and start-up phases;

b) All spare parts deemed necessary by the Classification Society;

c) All special tools recommended by equipment and materials’ vendors for construction, assembly, testing, pre-commissioning, commissioning, pre-operation, start-up and all levels of maintenance;

d) All special tools, spare parts and consumables shall be delivered together with the main equipment;

e) All spare parts and special tools shall be in accordance with manufacturers’ recommendation and Classification Society requirements, as a minimum. Even in the case that Classification Society has no requirement but only a guide list for spare parts, this guide list shall be considered by SELLER as a mandatory requirement together with manufacturers’ recommendation and shall be supplied at no extra cost to BUYER;

f) All Capital Spares, according to Exhibit I – SCOPE OF SUPPLY.

* + - 1. SELLER shall be responsible for managing, transportation, storage and preservation of all commissioning spare parts, consumables, special tools and Capital Spares. In case any item loses its lifespan (expire date) before TTAS-2, SELLER shall be responsible to promptly replace it without any impact in contract price or schedule.
    1. SELLER shall prepare and submit to BUYER, within 420 days from Agreement Effective Date, a detailed list of all manufacturer and Seller-recommended spare parts necessary for operating all Equipment (the “Operating Spare Parts”), including components and systems of such Equipment for a period of two (2) years after the Handover Date. The list shall also include all items that require periodic replacement (e.g. filters, seals, consumables). In addition to the description, the list shall feature for each item the quantities, subsystem (SSOP), part numbers used by the relevant vendors and their suppliers. The list shall be approved by BUYER. The supply of the spare parts for two (2) years of operation shall not be included in Lump sum price.
  1. In case SELLER need to deliver, after UNIT Sail Away from the Integration shipyard or after Customs clearance of the UNIT in Brazil, any part or piece of equipment or material, consumables, commissioning spare parts, special tool, Capital Spares or any item/material/equipment that shall be replaced under guarantee, SELLER shall be responsible for all the expenses related to transportation, customs clearance, importation taxes and fees, harbor fees, storage, preservation, freight forwarding and handling in order to deliver the items to BUYER in a place to be informed in Brazil. These items will not be admitted under Special Custom Regime “Repetro Sped” in Brazil. Thus, SELLER shall bear all importation taxes fees, storage, handling and custom broker in Brazil. In case of items manufactured in Brazil, SELLER shall consider that no Special Customs Regime will applicable.

# PURCHASING

* 1. SELLER shall submit a detailed Purchasing Procedure to BUYER for approval within thirty (30) Days from the Agreement Effective Date. Any delay in BUYER approval of the Purchasing Procedure shall not jeopardize the beginning of purchasing activities by SELLER.
  2. The Purchasing Procedure shall include all phases in the purchasing process, from issue of material requisitions to delivery to the SELLER job Sites, and the Purchasing Control Map. The Purchasing Control Map shall include at least the stages to be followed and all dates scheduled, foreseen and achieved, as well as the timing of the following:

1. Issue of technical documents;
2. Issue of request for proposals;
3. Receipt of proposals;
4. Issue of technical bid evaluations (TBE);
5. Receipt of BUYER technical bid evaluations;
6. Issue of purchase orders;
7. Establish a kick off meeting with suppliers of main equipment, to be assisted by BUYER;
8. Analysis of vendors documents;
9. Documentation conclusion (for construction);
10. Completion of manufacture;
11. Factory Acceptance Test or final witnessed test (if applicable);
12. Transportation time;
13. Customs clearance;
14. Delivery at SELLER’s job Site;
15. Equipment/Material needed date at SELLER’s job Site.
    * 1. SELLER shall provide the Purchasing Control Map fully updated to BUYER on a weekly basis and whenever requested.

4.2.1.1 Regarding the update of the Purchasing Control Map, SELLER shall use a tool/system that allows online updating.

* + 1. If a scheduled date is not achieved for any process or sub-process, an achievable foreseen date shall be informed in the updated version of Purchasing Control Map maintaining also the originally planned date to evidence the delay. The reason of such delay shall also be informed, as well as the action to solve it when later than Equipment/Material needed date at SELLER’s job Site.
    2. Equipment/Material needed date at SELLER’s job Site shall be compatible with Detailed Project Schedule as set forth in Exhibit VI – Directives for Planning and Control.
    3. Purchasing Control Map shall contain the information mentioned in 4.2 and subitems for all equipment and materials (including bulk material) of the UNIT.
  1. All materials and equipment supplied by SELLER shall be brand new (not overhauled), field proven, free from defects and accepted by BUYER and the Classification Society. Materials and equipment shall be manufactured according to internationally recognized standards for the offshore oil drilling and production industries and shall be in conformance with the Basic Design and Agreement specifications and requirements.
     1. Field proven definition: Systems and equipment shall demonstrate satisfactory operation at least in 3 offshore floating production units, operating under similar conditions of the FPSO to be supplied, for a minimum of 24,000 (twenty four thousand) hours in each unit. Unproven designs or prototypes (including components) without offshore service will not be accepted. As a minimum, the following parameters shall be analyzed to confirm “similar conditions” for each kind of equipment:

1. Process and mechanical static equipment and components: pressure, flow, capacity and fluid characteristics;
2. Rotating equipment (turbomachinery, compressors and pumps): fluid characteristics, flow, suction and discharge pressures;
3. Handling equipment (cranes, winches, reels) and mooring components: maximum load;
4. Valves/piping: diameter, pressure rate;
5. Electric equipment: voltage and power;
6. Batteries: capacity (Ampere-hours);
7. Telecom:
   1. PAGA /Public Address - Acoustic Power;
   2. GMDSS - Approved for operate in area A3 according with SOLAR chapter IV;
   3. VHF Aeronautic radios - power and frequency plan;
8. Automation and Instrumentation:
   1. In general: process conditions (flow, pressure, temperature and fluid characteristics) and additionally, for:
   2. Flare gas ultrasonic meter: accomplishment with Brazilian national regulation (INMETRO and RTM);
   3. Severe service control valve, Choke valve, Pressure relief valve: diameter, material;
   4. HPU: power rate;
   5. MPS/MMS/ Compressor Capacity Control System for Performance, Load Sharing and Anti-Surge: machine power rate and machine flow capacity;
      1. To prove the required operational performance, the SELLER must present for each item the Certificate of Technical Capacity, according to the model in Appendix III.
      2. In case of equipment or material certificated by a Classification Society other than the Classification Society responsible to provide the Unit classification, the acceptance of the certificate by the Unit's Classification Society is solely under SELLER responsibility.
      3. Exceptionally for equipment and vendors listed in Appendix I – Project Vendor List, BUYER at its sole discretion may fully or partially waive SELLER of proving that the equipment is field proven in accordance to definition set forth in 4.3.1.
   6. Material and coating specification for all bolts, studs and nuts shall be selected according to BUYER’s Requirements for Bolt Materials (I-ET-3010.00-1200-251-P4X-001). SELLER shall present a plan, together with PO emission, indicating the suppliers involved and how inspection will be performed. In case of subcontracted scope, the same applies to Subcontractors.
   7. All SELLER’s vendors, sub-vendors and subcontractors shall comply with BUYER General Painting Technical Specification (I-ET-3010.00-1200-956-P4X-002) when fabricating / supplying their equipment / valves / skid / material.
   8. At any time, BUYER can reject any materials or equipment supplied by SELLER, vendors, sub-vendors or subcontractors that do not meet the contract requirements. In case of rejected materials or equipment, SELLER shall replace them, at SELLER’s account, within a time period compatible with the time schedule of the contract.
   9. SELLER and its Subcontractors shall procure materials and equipment established in the Project Vendor List in Appendix I hereto, using the suppliers and vendors indicated on that Appendix.
      1. The vendors of Super Critical equipment established in the Project Vendor List shall not be changed.
      2. SELLER’s compliance with the Project Vendor List does not imply BUYER’s technical approval of the equipment or materials.
      3. For equipment/materials (including bulk materials) not covered by the Project Vendors List, SELLER shall prepare and submit for BUYER's, at an agreed time between the parties, a list of recommended vendors, including the following information:
9. A list of similar installations;
10. Technical capability;
11. Manufacturing capability;
12. ISO 9001 certification or equivalent;
13. Type approval certificates;
14. Classification Society certificates.
    * + 1. BUYER can reject any of the SELLER’s recommended vendors at its sole discretion. In this case, BUYER will inform SELLER its decision and the reason of the rejection, which may include the bunch of documents submitted, BUYER’s known past quality and/or performance issues or other unwanted experiences that may jeopardize the Agreement.
        2. The rejection of a recommended vendor as per item 4.7.3.1 does not imply in the agreement by BUYER of any kind of schedule extension or delay.

* + 1. In case SELLER wants to present a vendor for a critical equipment different (“alternate vendor”) from the ones previously approved by BUYER, it will be necessary to prove that the equipment is field proven, according to the definition given in item 4.3.1. Besides the information requested in item 4.7.3, SELLER shall present, for each alternate vendor, the equipment supply record list with the following information, permitting BUYER to confirm the equipment past performance according to its specifications:

1. Technical data (pressure, flow, temperature) of the equipment;
2. Location of the installation;
3. Number of hours in operation;
4. End User and Facility Location.
   * + 1. The complete set of documents described on items 4.3.1, 4.7.3 and 4.7.4 to present an Alternate Vendor shall be delivered. If any of the documents is lacking, the Alternate Vendor analysis will not be carried out by BUYER.
       2. Notwithstanding the accomplish to item 4.7.4, BUYER reserves the right to approve or reject any presented alternate vendor at its sole discretion. In case of rejection, BUYER will inform SELLER its decision and the reason, which may include BUYER’s known past quality and/or performance issues or other unwanted experiences that may jeopardize the Agreement.
   1. All technical proposals received from potential vendors shall include the following:
5. A complete description of the scope of supply;
6. A list of deviations from technical specifications and standards, including reasons for those deviations; this list shall be tabulated with the following columns: Technical Specification / Standard, Item Description, Deviation and Performance Impact;
7. A complete data sheet, including painting scheme, that shall be in accordance to BUYER General Painting Technical Specification (I-ET-3010.00-1200-956-P4X-002);
8. An outline drawing showing the key dimensions and maintenance area;
9. The weight and the center of gravity;
10. Data on noise and vibration;
11. The delivery schedule;
12. A list of all spare parts (containing its complete technical specification and original manufacturer part number reference) for commissioning and start-up, according to Exhibit VIII - DIRECTIVES FOR COMMISSIONING, as well as another list for two years of operation;
13. A list of all special tools and Capital Spares (when applicable);
14. The name, address, telephone, e-mail address and service network of a contact person from main vendor and its sub-vendors;
15. All documents and drawings required by the Contract;
16. A reference list of similar installations;
17. Required inspections and/or tests (ITP template);
18. The manufacturer’ schedule;
19. Quality/inspection levels;
20. A description of warranties;
21. Technical support and training to be provided;
22. Drawings of the layout;
23. Performance curves;
24. A list of sub-suppliers;
25. Quality plan;
26. List of Lube/Hydraulic Oils;
27. List of Consumable Materials needed during commissioning, pre-operation and start-up;
28. Store and preservation recommendations;
29. List of service centers (Technical Assistance);
30. Environmental required conditions for commissioning and operation.
    * 1. SELLER shall be responsible for analyzing the technical proposals submitted by potential vendors. During the technical analyses of the proposals, SELLER shall take the following factors into account:
31. The potential vendor’s quality, certification (with a “type approval” or similar qualification, whenever required by the Classification Society) and experience in the design and supply of materials of the same or similar magnitude;
32. Proposed delivery time and their conformity with the Detailed Project Schedule;
33. The availability and standardization of spare parts and services for the UNIT, together with the feasibility of maintenance and overhauling in Brazil;
34. Consumable materials and commissioning spare parts regularly demanded by the proposed vendor’s equipment and materials, such as fuses, light bulbs, batteries, etc;
35. Environmental required conditions for commissioning and operation compatible with actual Commissioning and Operation Site Conditions
    * 1. SELLER shall evaluate the technical proposals and submit to BUYER analysis the Technical Bid Evaluations (TBE) for all super critical and critical equipment listed in the Project Vendor List (Appendix I), all project tagged equipment and the following items:
36. Safety Studies;
37. Bell Mouths for risers;
38. Electrical Cables;
39. MCTs, cable trays, cable glands and cable cleats.
    * + 1. The TBE to be submitted for BUYER approval shall contain a bid tabulation with all Technical Requirements and Material Requisition comparing at most three (3) technical proposal for each equipment / material or group of materials. It is SELLER responsibility to assure that the Vendors proposals are in full compliance with contractual requirements.
           1. BUYER will focus its evaluation only in bid tabulation. Therefore, SELLER is responsible for the full adherence of bid tabulation information with the Vendors technical proposals. This strategy shall not constitute a waiver from BUYER the right to object or accept any deviation not clearly presented by SELLER in bid tabulation.
           2. SELLER shall indicate in the TBE which vendor for each equipment / material or group of materials have the best technical proposal.
           3. BUYER reserves the right at its sole discretion to request to be submitted complete technical proposal to BUYER for information.
        2. BUYER will approve all TBE of super critical and critical equipment listed in appendix I. At its sole discretion, BUYER may request for approval the others TBE submitted by SELLER or any other TBE not listed in the item 4.8.2.
    1. SELLER shall produce a final version of the TBE updated, including all BUYER comments in the Technical Bid Evaluation (TBE) and complete and final technical proposal of the awarded vendor. If BUYER identify at any time, any deviation from Technical Specification, Material Requisition and other Contractual requirements, it is SELLER responsibility to correct it in a timely manner.
       1. If SELLER change any item on final technical proposal from the TBE analyzed by BUYER, SELLER shall submit the final technical proposal with changes highlighted for BUYER evaluation and approval.
    2. All “as purchased” documents produced by the vendors or sub-suppliers regarding the following subjects shall be prepared in Brazilian Portuguese language. If the original document is issued in English, it shall be translated into Brazilian Portuguese language, except the One-line Diagrams that shall the issued bilingual (English / Brazilian Portuguese):
40. Operation and maintenance manuals of equipment, packages and their systems;
41. The safety of the equipment, packages and BUYER’s personnel, such as warnings, storage, safety plans, etc;
42. Procedures for commissioning, pre-operation, start-up and shutdown;
43. Procedures for normal operations;
44. Procedures for emergencies;
45. General procedures regarding health, safety and the environment.
    1. SELLER shall deliver to BUYER, on a weekly basis, a digital copy (electronic file) of the signed Purchase Order with each supplier.
    2. Suppliers shall deliver to BUYER copies of all technical correspondence and documentation exchanged between Suppliers and the Classification Society. Correspondence between Suppliers and Classification Society shall be sent to BUYER as the same time as they are issued or received by Suppliers.
       1. SELLER shall guarantee that all Suppliers and Sub-Suppliers celebrate specific contracts (purchase order) allowing Classification Society to send to BUYER the correspondence when requested.
    3. BUYER reserves the right to participate of any meeting or activities to be held among SELLER, Suppliers, Classification Society and any other Sub-Suppliers. SELLER shall advise BUYER within 4 (four) days in advance the date, local and subject and way to connect to the meetings.
    4. Suppliers and Sub-Suppliers shall guarantee the implementation of all improvements required by vendor (e.g. Service Bulletin) or other engineering recommendations, issued during the design and construction phase up to BUYER final acceptance of equipment, without any additional cost to BUYER.

# EXPEDITING

* 1. At its discretion, BUYER will participate in activities to expedite vendors’ performance. SELLER shall permit BUYER to accompany it on expediting visits, whenever BUYER deems necessary.
  2. SELLER shall establish an expediting team immediately after placement of the first Purchase Order. The expediting team shall be responsible to schedule the kick-off meeting with each supplier, within ten (10) Days from the signature of the purchase order. The kick-off meeting will be established to at least:

1. Introduce the Supplier’s Contract manager to the SELLER’s package engineer and BUYER’s procurement team;
2. Review the general contractual requirements applicable to all equipment/systems, i.e., Design code, Brazilian Regulatory Standards (NR) requirements, Painting, Metallization, QA inspectors (painting, welding, Non-Destructive Testing - NDT), according to Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM, Appendix I - Project Vendors List, etc;
3. Review the requirements for the presentation of engineering documents, i.e., documents size, labeling and numbering according to the Exhibit III – DIRECTIVES FOR PRODUCT DEVELOPMENT and NI-381 standard;
4. Review and define of Documents List and Schedule. Vendor shall inform the date of presentation of the main documents prior to the fabrication, such schedule, document list, Inspection and Test Plan (ITP), drawings, among others;
5. Review the requirements for the inspection during fabrication.
6. Establish an expediting schedule and contact personnel;
7. Vendor presentation of fabrication/construction strategy informing sites where, how, who and when entire equipment will be fabricated/constructed;
8. Ensure that the vendors will meet the contractual delivery dates by means of following up Vendor's planning, engineering, procurement, manufacturing and assembly phases;
9. Inform at the earliest stage of any potential problem regarding the vendor performance and propose and implement corrective actions;
10. Any other issues considered relevant to the equipment/system fabrication/construction.
11. Vendor presentation of painting procedures, strategy informing sites where, how, who and when painting works will be performed.
    1. SELLER shall submit a detailed Expediting Procedure to BUYER comments, within thirty (30) Days from the Agreement Effective Date.
    2. SELLER shall provide all information on a weekly basis regarding the progress of the works, from each vendor and / or its sub-vendors, to BUYER.
    3. SELLER shall allow BUYER or its subcontractors to access vendors or sub-vendors facilities to expedite any fabrication phase whenever BUYER deems necessary.
    4. SELLER shall establish periodical meetings with BUYER and vendors in order to follow up the progress of the works.
    5. SELLER shall issue an expediting report to BUYER after each visit to a vendor’s facility or to the job site. The minimum content of such reports must be included in the respective Quality Control Plan, defined in Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM. Additionally, these reports shall also be part of project records.

# MANUFACTURING SURVEY INSPECTION

* 1. SELLER shall review and approve the Inspection and Test Plan (ITP) issued by manufacturer, concerning to each equipment, unit, package and module to be supplied. SELLER shall take part on approval of procedures for fabrication, inspection and test and perform survey inspection, in accordance with I-ET-3010.00-1200-972-P4X-006 and EXHIBIT VII - DIRECTIVES FOR QUALITY ASSURANCE SYSTEM.
     1. At its sole discretion, to check the compliance of Contract specifications and requirements, BUYER may request additional information of any material and equipment.
     2. At any time, BUYER may request the substitution of any material and/or equipment not complying with Agreement specifications and requirements, without any additional charge to BUYER.
     3. The vendors’ Inspection and Test Plan (ITP) shall be issued and submitted for BUYER’s analysis within ten (10) Days before pre-inspection meeting, previously approved by SELLER. The ITP shall be presented at Kick Off Meeting to be held among BUYER, SELLER and Vendor.
  2. For all inspections to be witnessed by BUYER, the inspection date shall be confirmed to BUYER at least eighteen (18) Days prior to the date scheduled for each inspection for vendors located in Brazil, and twenty-eight (28) Days prior to each inspection for vendors located outside Brazil.
     1. The equipment and systems which BUYER intends to carry out inspections during fabrication are stated in I-ET-3010.00-1200-972-P4X-006.
  3. SELLER shall issue an inspection report to BUYER after each inspection or test. The minimum content of such reports must be according to I-ET-3010.00-1200-972-P4X-006 and included in the respective Quality Control Plan, defined in Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM. Additionally, these reports shall also be part of project records.
  4. At its discretion, BUYER may conduct detailed inspections in addition to those mentioned in the approved Inspection and Test Plan;
  5. In addition to the above, and specifically with respect to the equipment described in Section 6.2.1, BUYER can send inspectors to witness all performance tests and any of the subsequent activities including test apparatus removal, final inspection, preservation and preparation for delivery / shipment.
  6. For all inspections that BUYER intends to participate, the SELLER must also send a representative.
  7. The final inspection of all pressure vessels and equipment under Brazilian NR-13 at vendor’s facility shall be carried out by SELLER’s technicians in compliance with Brazilian Regulatory Standard NR-13 and I-ET-3010.00-1200-970-P4X-013 – COMPLIANCE WITH NR-13 AND SPIE REQUIREMENTS and EXHIBIT IV – DIRECTIVES FOR PRODUCT FABRICATION, section ‘NR13 REQUIREMENTS’.
  8. Factory Acceptance Test (FAT)
     1. Where applicable, FAT procedure (including performance test) shall be developed by SELLER’s vendors or sub-vendors and submitted to BUYER for approval, at least three (3) months prior to a FAT planned.
     2. FAT shall be a part of SELLER’s vendors or sub-vendors scope of supply and shall be witnessed by BUYER's representative and Classification Society surveyor, as applicable.
  9. Inspection Release Certificate (IRC)
     1. SELLER’s representative shall inspect equipment / material at the SELLER’s vendors or sub-vendors site/factory and issue the Inspection Release Certificate (IRC), before shipment, complying with all Purchase Order requirements. In case of any punch lists, vendors and sub-vendors shall present to SELLER and BUYER’s approval an action plan with a deadline to clear the issues. Conditions of IRC issuance are stated in I-ET-3010.00-1200-972-P4X-006.
     2. SELLER’s vendors shall issue a photographic report, demonstrating all items of the packing list, before packing and transportation.
     3. SELLER shall inform BUYER when the equipment/skid/package is ready for transportation. BUYER at its discretion will attend the release inspection before transportation. The advanced notice for the inspection herein shall be forwarded to BUYER twenty-eight (28) days before the event in case outside Brazil and eighteen (18) days in case the inspection inside Brazil.
     4. The minimum content of the IRC must be included in the respective Quality Control Plan, in accordance to I-ET-3010.00-1200-972-P4X-006. Additionally, these IRC shall also be part of project records.
     5. SELLER shall ensure, before packing for shipment, that equipment / skids / material is painted according to General Painting Technical Specification (I-ET-3010.00-1200-956-P4X-002) or other painting scheme accepted by BUYER, so they can withstand with weather and marine environment (UNIT operation conditions).
  10. QUALITY AUDIT AT VENDORS AND INPECTION AGENCY
      1. BUYER shall perform audits at Vendors and Inspection Agency in order to assess Quality Management System and compliance with technical contractual requirements, according to I-ET-3010.00-1200-916-1AL-001 – REQUIREMENTS FOR QUALITY AUDITS IN THE FPSO SUPPLY CHAIN.

# PRESERVATION, PACKING AND TRANSPORTATION

* 1. SELLER shall ensure that all equipment, materials, special tools and spare parts that SELLER purchases hereunder are suitably packed, crated, preserved, boxed or otherwise appropriately prepared for shipment and protected from the elements.
     1. Preservation and packing shall be proper for transportation and storage in a marine environment and protected against moisture and damage during transport, handling and lifting, in accordance with vendors and sub-vendors recommendations and Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM. In any case, suitable preservation and protective measures shall be provided to prevent equipment deterioration prior to entering into service in the UNIT. The fumigation of the boxes shall be considered, where applicable.
     2. All packing shall be clearly marked for shipping, including lifting points, weight, dimensions and center of gravity. All sea fastening and temporary supports used on the equipment for shipment shall be clearly identified.
     3. SELLER shall ensure that all loose valves, tubes and instruments are supplied with plastic caps. SELLER shall also ensure that all electric panels and motors will be supplied with Volatile Corrosion Inhibitor (VCI) impregnated plastic protection or similar, and external plug for space heater connection.
     4. SELLER’s vendors shall provide clear and comprehensive instructions on the exterior of all packages advising the necessary warning notices for unpacking, handling and installing the equipment on arrival at destination.
  2. SELLER’s Vendors shall submit the following shipping documents (Dispatch Dossier), containing at least:

1. Inspection Release Certificate (IRC), issued by SELLER or its representatives, which releases the equipment/material shipment;
2. Certificate of the Classification Society, if applicable;
3. Conformity Certificate;
4. Emergency card or "Material Safety Data Sheet", if applicable;
5. Requirements and instructions for lashing, protection, transportation, unloading and storage, whenever necessary;
6. General Arrangement and Data Sheet;
7. P&ID;
8. Packing List and Invoice
9. Lifting Scheme, if applicable
10. Packing, unpacking, preservation and storage procedures. Such documentation must cover all phases of assembly and testing on UNIT.
11. Painting/coating repair procedures;
12. Fumigation Certificate, if executed.

# CUSTOMS CLEARANCE

* 1. For all equipment and materials received at the SELLER’s integration job site and/or on board the UNIT that are part of SELLER scope of supply, SELLER shall be responsible for Customs clearance and shall assume the risks inherent in clearing through Customs and all payments stemming there from. SELLER shall maintain an up-to-date record of all Customs references.
  2. SELLER shall defray payment of fines or penalties resulting from omission on the part of the SELLER to pay within the legal deadline any duties, charges or similar assessments.
  3. SELLER shall arrange for all importation licenses, including special licenses (e.g. license for importing radioactive and/or explosive parts), and taxes regarding the material/equipment under its scope of supply.

* 1. The Customs references recorded by SELLER shall include the control of all materials and equipment and the numbers of all Purchase Orders.
  2. SELLER shall maintain its registration in such a manner that, with respect to each shipment, all materials and equipment utilized, stored or discarded may be checked by BUYER and/or by the Customs authorities.

# DELIVERY

* 1. SELLER shall have adequate and organized facilities that allows the receival, unloading, unpacking, inspection, handling, identification and storage of all materials, equipment, commissioning spare parts, Capital Spares and special tools.
     1. All spare parts and special tools for assembly, commissioning, start-up and maintenance shall be supplied in conjunction with each piece of equipment/package, delivered at construction and assembly site.
     2. Spare parts with expiring date earlier than its expected applying date (such as special glues, greases, lubricants, chemicals, calibration gases and mixtures) may be delivered after the equipment, in timely manner to not delay the commissioning. A list with these postponed items shall be clearly informed by SELLER to BUYER including its description, average expiring time (in months or years), and foreseen delivery date, before the respective equipment delivery. In case of any spare part expired by the time of its use, SELLER shall replace the expired item with no extra costs to BUYER.
  2. SELLER shall make sure that all materials, equipment, commissioning spare parts, special tools and Capital Spares delivered are correct as to type, quantity, condition, technical specification and with the appropriate project identification marks.
  3. SELLER shall maintain a record of all materials, equipment, commissioning spare parts, special tools and Capital Spares received each day, and shall communicate this information to the Materials Information and Control System (as defined in item 11.1 below).
  4. SELLER shall conduct a complete and detailed physical examination of all materials, equipment, commissioning spare parts, special tools and capital spares received within seven (7) Days of the arrival of such goods at the SELLER job sites and issue the Receiving Inspection Report (RIR), containing a detailed photographic record of each packing list item and the content of each volume or box. The receiving inspection shall involve certified qualified inspectors and/or technical professionals, respecting the disciplines required for each equipment / materials being received and satisfying the conditions indicated at Exhibit VII – DIRECTIVES FOR QUALITY ASSURANCE SYSTEM.
     1. If SELLER detects any defect or deviation, the relevant shipment shall be removed to a segregate storage area, and information concerning that deviation and defect shall be communicated to the Materials Information and Control System. All punches list items observed during inspection shall be registered on the BUYER Punch List Management System, in accordance with Exhibit VIII - DIRECTIVES FOR COMMISSIONING and Exhibit XVI - COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM.
     2. If any delivered material/equipment has some defect or deviation that compromises its integrity, the item shall be returned to the supplier, replaced or fixed at the job site, without costs and or schedule impact to BUYER.
  5. SELLER shall notify BUYER when all material/equipment/skid/package arrive at SELLER job site and when they are ready for receiving inspection. BUYER will witness the inspections when it deems necessary.
  6. SELLER shall properly store, preserve and commission the materials, equipment, commissioning spare parts, special tools and Capital Spares after receiving those goods at the job sites, before using them in the UNIT, during all phases, in accordance with the procedures defined in the manuals supplied by their respective vendors.
  7. SELLER shall identify all materials, equipment, commissioning spare parts, special tools and Capital Spares in such a manner as to monitor their status and facilitate their easy location. Such identification shall be properly labeled with the following information as a minimum:

1. Purchase Order and FPSO Number;
2. Project Name;
3. Item, Tag and Serial Numbers;
4. Identity Code according to engineering documents, whenever applicable;
5. Label code as registered at Material Information and Control System, defined at Exhibit XVI – COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM;
6. Manufacturer’s name, quantity and address, as a minimum;
7. SSOP information (subsystem).
   1. SELLER shall carry out the preservation of all material and equipment received within seven (7) days of its receiving, according to Exhibit VIII – DIRECTIVES FOR COMMISSIONING and vendors or sub-vendors procedures.

# EQUIPMENT SUPPLIED BY BUYER

* 1. The equipment supplied by BUYER with delivery details are listed in Exhibit I – SCOPE OF SUPPLY.
  2. SELLER shall, by its own means, unload, receive, move, properly store, preserve, install, commission, test and control all materials and equipment supplied by BUYER in the same manner as described in Section 9 above.
  3. All materials and equipment supplied by BUYER shall be treated as materials supplied by SELLER, except for their warranty that is BUYER's responsibility.
  4. SELLER shall be responsible for repairing any deviation in materials and equipment provided by BUYER, not previously identified in the Receiving Inspection at Rio de Janeiro, related to: preservation, unloading, movement, installation, materials control, etc.

# INVENTORY CONTROL

* 1. SELLER shall set up strict computer aided inventory controls for materials, equipment, commissioning spare parts, Capital Spares and special tools, to permit immediate verification of those materials already used in the UNIT and those stored at the job sites, according to Exhibit XVI - COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM.
  2. SELLER shall be responsible to provide storage areas at the job sites to maintain the characteristics of all materials and equipment, supplied by SELLER and BUYER, and to ensure that no materials containing defects or discrepancies are incorporated into the UNIT.
     1. SELLER shall follow the Vendors and sub-vendors requirements for the appropriate storage conditions of the supplied materials/equipment/package.
     2. SELLER shall prepare a procedure to store materials indicating:

1. All access areas;
2. The layout of storage areas;
3. A system permitting visual identification of all materials in storage (such as color coding);
4. Storage criteria, according to the category of materials;
5. Special precautions to be adopted;
6. Traceability;
7. Tractability.
   * 1. If BUYER disagrees with any storage procedures or deems any storage area unsuitable, SELLER shall take corrective actions.
     2. The storage areas shall be dedicated and clearly demarked and identified to materials belonging to the UNIT.
   1. SELLER shall provide, before the Mechanical Completion Date, a complete UNIT list containing the information the following items: equipment, instruments, commissioning spare parts, Capital Spares and special tools, according to Exhibit XVI – COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM.
   2. BUYER shall provide to SELLER the equipment, instruments, parts and spare parts lists of the equipment provided by BUYER, and SELLER shall incorporate these lists, provided by BUYER, in the UNIT equipment, instruments, parts and spare parts lists to be prepared by SELLER.

# REPORTS

* 1. SELLER shall submit a monthly basis report on the general status of all procurement activities, according to Exhibit XVI – COMPUTATION TOOLS AND INTEGRATED MANAGEMENT SYSTEM.

# APPENDIX

**APPENDIX I - PROJECT VENDOR LIST**

| **CLASSIFICATION** | **EQUIPMENT** | **VENDORS** |
| --- | --- | --- |
| Super Critical | Programmable Logic Controller | - ALTUS - EMERSON (PACSystems) - ROCKWELL - SIEMENS |
| Super Critical | Water Injection Pumps | - FLOWSERVE - NUOVO PIGNONE - SULZER |
| Super Critical | Sea Water Lift Pumps (Electric) | - FRAMO |
| Super Critical | Gas Turbine API 616 for Offshore Environment | - BH – Model: LM6000 PC - SIEMENS – Model: SGT-750 (No propane start up system) |
| Super Critical | Centrifugal Compressors API 617 (CO2 and gas compression modules) | - BH - MAN - SIEMENS ENERGY |
| Super Critical | Rotary Compressor for Vapor Recovery Unit API 619 | - HOWDEN - KOBELCO - MAN |
| Super Critical | Supervisory System (SCADA) | - AVEVA (INTOUCH) - INTELLUTION / GE INTELLIGENT PLATFORMS (IFIX) - ROCKWELL (FACTORY TALK) |
| Super Critical | Diesel-Hydraulic Fire Water Pumping Unit | - FRAMO - SULZER |
| Critical | Flare Gas Ultrasonic Flowmeter | - BAKER-HUGHES - FLUENTA |
| Critical | Molecular Sieve (zeolite) | - CECA - GRACE - UOP (Honeywell) |
| Critical | UV, UV+IR and 3IR Flame/Fire Detector | - AUTRONICA - DET-TRONICS - EMERSON - MSA |
| Critical | TOG (Oil Content in Water) Analyser | - ADVANCED SENSORS |
| Critical | Moister Analyser | - AMETEK - SPECTRA SENSOR |
| Critical | Compressor Capacity Control System for Performance, Load Sharing and Anti-Surge | - COMPRESSOR CONTROLS CO. (CCC) - ECT |
| Critical | Hydraulic Power Unit (HPU subsea) | - AUTOCON - ePRODUCTION SOLUCTIONS - FLUTROL - FRAMES - JOHNSON CONTROLS - OCEANEERING - SMS Alderley - TRANSCONTROL |
| Critical | Synchronous Generators (Medium and Low Voltage) | - ABB - BRUSH - GENERAL ELECTRIC - SIEMENS - WEG |
| Critical | Uninterruptible Power Supply System on Alternate and Direct Current (UPS-AC and UPS-DC) | - AEG POWER SOLUTIONS - AMETEK SOLIDSTATE CONTROLS - BENNING - CHLORIDE - SCHNEIDER GUTOR |
| Critical | Three Phase Power Transformers | - ADELCO - HITACHI ENERGY - SCHNEIDER - SIEMENS - WEG |
| Critical | Medium Voltage Electric Motors | - ABB - ATB LAURENCE SCOTT - GENERAL ELECTRIC - SIEMENS - WEG |
| Critical | Switchgear and Motor Control Center (Medium and Low Voltage) | - ABB - GENERAL ELECTRIC - SCHNEIDER - SIEMENS - WEG |
| Critical | Variable Speed Drives (VSD) (Medium Voltage) | - ABB - GE - ROCKWELL - SCHNEIDER - SIEMENS - WEG |
| Critical | Cargo and Ballast Hydraulic Submerged Pumps | - FRAMO |
| Critical | Offshore Crane | - NOV - PAULFINGER |
| Critical | Flare | - GBA-CORONA - JOHN ZINK COMPANY - ZEECO |
| Critical | Plate Heat Exchanger for Process Plant and Cooling Water System | - ALFA LAVAL - SPX - TRANTER |
| Critical | Printed Circuit Heat Exchanger | - HEATRIC |
| Critical | Well Service Pump API 674 | - HAMMELMANN - PERONI - RHURPUMPEM - WEPUKO |
| Critical | Air Compression Unit (oil free screw and centrifugal compressor) | - ATLAS COPCO - INGERSOLL RAND |
| Critical | Riser Pull-In System | - NOV - PH HYDRAULICS - PUSNES |
| Critical | Process Electric Heater | - EX-HEAT - GAUMER PROCESS |
| Critical | Offloading System (Hose reel, HPU) | - APL - IHC-GUSTO B.V. - MARITIME PUSNES - SCANA - TECHFLOW MARINE |
| Critical | Inert Gas Generation System | - MARITIME PROTECTION - WARTSILA |
| Critical | Mooring System (Winches, HPU, Chain Stopper etc) | - KONGSBERG (ROLLS ROYCE) - PH HYDRAULICS - REMAZEL |
| Critical | Membranes for Sulfate Removal Unit (SRU) | - DUPONT (FILMTEC CORPORATION) - NITTO DENKO CORPORATION SHIGA PLANT - SUEZ - TORAY MEMBRANE |
| Critical | Membranes for CO2 Removal Unit | - AIR LIQUIDE - CAMERON - MTR - NOV (Evonik) - UOP (Honeywell) |
| Critical | Vacuum Deaerator - Internals and Process Design | - EDWARDS - ETA PROCESS PLANT (KOCH-GLITSCH) - NOV - VEOLIA |
| Critical | Electrostatic Treater - Internals and Process Design | - BS&B - NOV - SCHLUMBERGER - VME |
| Critical | Gas Dehydration Unit (GDU) - Internals and Process Design | - AXENS - BS&B - EXTERRAN (HANOVER RUSSELL) - NOV - SCHLUMBERGER - THERMO DESIGN ENGINEERING (TDE) |
| Critical | Hydrocyclones | - ALDERLEY FZE - FMC TECHNIP - NOV  - SCHLUMBERGER |
| Critical | Production Separator, Test Separator, Atmospheric Separator - Internals and Process Design | - BS&B - EXTERRAN - FMC TECHNIP - NOV - SCHLUMBERGER - VME |
| Critical | Ultrafiltration Unit | - NOV - SUEZ - TORAY - VEOLIA |
| Critical | Mechanical Refrigeration Unit (Hydrocarbon Dew Point Control) | - MAYEKAWA - REFRIGERATION ENGINEERING INTERNATIONAL |
| Critical | PAGA System | - AMPLIDAN - DYNARCORD - GAYTRONICS - PHONTECH - VODEC - ZENITEL |
| Critical | GMDSS - Global Maritime Distress Safety System | - COBHAM-SAILOR - FURUNO - JOTRON - JRC |
| Critical | VHF Aeronautical Radios | - ICOM - JOTRON |
| Critical | Receptacle | - DOOSAN - HUTCHINSON GROUP (TECHLAM)  - OIL STATES INDUSTRIES (OSI) |
| Critical | Unified Diverless Support Tube (TSUDL) | - HUNTING - HUTCHINSON GROUP (TECHLAM) - OIL STATES INDUSTRIES (OSI) |
| Critical | Classification Society | - ABS - BV - DNV - LLOYD'S REGISTER |
| Critical | Safety Study – Consequence Analysis | - ABS - ARC - BV - DNV |

**APPENDIX II - GENERAL SURVEY INSPECTION REQUIREMENTS**

**Replaced by I-ET-3010.00-1200-972-P4X-006.**

**APPENDIX III – CERTIFICATE OF TECHNICAL CAPACITY TEMPLATE**

*(letterhead of the purchasing company)*

**Certificate of Technical Capacity**

To whom it may concern:

The company *(complete corporate name and tax number of the purchasing company)* attests for the due purposes that the company *(complete corporate name and tax number of the seller provider)*, satisfactorily provided, regarding the supply, delivery time and technical assistance, the products/services listed below. Additionally, states that the products have satisfactory operational performance for at least 24,000 hours.

|  |  |  |
| --- | --- | --- |
| **Delivery date and**  **Initial Operation** | **Description**  (Material/service) | **Technical specifications**  (Equipment tag, material, dimensions, range, detailed scope of supply/service, etc.) |
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|  |  |  |
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.................................................................................  
*(Date and Place)*

.................................................................................  
*(Responsible for the purchasing company)*

Note: This statement must be presented on the end-user customer's letterhead, quoting the place and date, with the customer's signature properly identified with name and position held)