**EXHIBIT V**

**DIRECTIVES FOR ACQUISITIONS**

**FPSO PETROBRAS 91 (P-91)**

**\*\*\*\*\*\*\*\*\*\*\*\*Revision Control\*\*\*\*\*\*\*\*\*\*\*\*\***

**Rev 0: Bid original version**

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1. GENERAL
   1. These directives define the requirements to be complied by Seller in carrying out, at least, the following stages of acquisition process for all systems, Equipment and materials within Seller’s Scope of Supply:
2. Purchasing;
3. Expediting;
4. Survey inspection;
5. Quality audit;
6. Certification, including Classification Society certification, whenever applicable;
7. Painting, preservation, packaging and transportation;
8. Customs clearance;
9. Delivery of materials;
10. Registration and control of punch list items;
11. Information systems;
12. Inventory control;
13. Documentation;
14. Technical Support;
15. Warranty.
    1. Seller acquisition team shall be mobilized at 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 - Computational Tools and Integrated Management System.
    3. Unless defined otherwise herein, all terms applied on this Exhibit shall have the meaning 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 Agreement scope.
       1. Seller’s Scope of Supply includes all temporary Materials, spare parts (including filter elements), special tools, Capital Spares, Capital Goods, Operational Spare Parts, Operational Goods, Mooring Components 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 (including, but not limited to, membranes, filter elements, TEG, amine, foam concentrated liquid, solid beds, activated carbon, etc.) and all special tools, licensed software, soft keys and hard keys handed over to Buyer, according to the requirements described in Exhibit VIII - Directives for Commissioning Process.
    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 initial revision of the procurement plan, including at least purchasing, expediting, Vendor documentation, customs clearance, delivery, inspection, materials and equipment. After ninety (90) days of Agreement Effective Date, the Seller shall submit a new revision of procurement plan including the information of commissioning spare parts, special tools, Capital Goods, Operational Spare Parts, Operational Goods, Mooring Components 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, from the issuance of the “Material Requisitions” until delivery at Seller’s job Sites, detailing at least the following processes and sub-processes:
16. Issuance of the technical documents;
17. Issuance of the “Material Requisitions” and “Request for Proposals”;
18. Receipt of Vendors’ proposals;
19. Analysis and approval of proposals;
20. Issuance of the purchase orders (POs);
21. Kick-off meeting with Vendors/manufacturers;
22. “Pre-Inspection Meeting” (PIM);
23. Expediting, inspections and acceptance tests;
24. Delivery logistics;
25. Customs clearance;
26. Strategy to comply with Project Schedule;
27. Strategy for “Long Lead Items” (LLI);
28. Technical Support during onshore and offshore phases;
29. Storage and preservation;
30. Vendor manufacturing progress report.
    * 1. Pre-Inspection Meeting (PIM), whenever applicable, shall be held at the factory where the Equipment, material or system will be manufactured. Seller shall always invite Buyer, who reserves the right 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 *in loco* and, in specific cases, 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. Images generated by remote inspection shall have quality enough to be evaluated and include all items considered to be inspected in the ITP.
         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. In the case there is more than one Vendor for a specific item in the Vendor List, but because of the restrictions imposed by the Buyer specifications, only one of these Vendors can comply with the specifications, Seller shall notify Buyer, through a written notice (the “Single Vendor Notice”), about this fact. Buyer will decide, at its sole discretion, to change the requirements or to keep them valid.
    2. Not applicable.
    3. All Unit Equipment and systems that requires a PLC (Programable Logical Controller), HMI (Human Machine Interface), servers, workstations, industrial switches and special tools to their respective technical specification and related documents shall be supplied with the complete software licenses, as well as theirs 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 comments before purchase order signature. After the end of onshore and/or offshore commissioning phase, all licenses shall be made available by Seller.
    4. 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 Process.
    5. Seller shall plan and control the use of all software licenses during all phases of the project, issuing, in a monthly basis, six (6) months before the Substantial Completion, a report of software licenses status. Seller shall supply and manage a software for managing, transferring, testing and repairing licenses keys. After the end of onshore and/or offshore commissioning phase, this program shall be transferred to Buyer. Seller shall issue the documentation, for each system, presenting all information about special cables, programmers, converters and licensed software to allow configuration, maintenance and troubleshooting.
    6. All communications and documentation processed between Buyer and Seller, even when it is concerning to Vendors, shall be in English language. Portuguese may be used, as an alternative, only when expressly allowed by Buyer.
    7. In case Seller provides radioactive materials or equipment 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, preparation and execution of the Radioprotection Plan 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.
31. APPLICABLE DOCUMENTS
    1. Classification Society, Applicable Laws and Applicable Codes and Standards, flag authority and governmental authorities.
    2. Brazilian regulatory standards (NRs).
       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/acesso-a-informacao/participacao-social/conselhos-e-orgaos-colegiados/comissao-tripartite-partitaria-permanente/normas-regulamentadora/normas-regulamentadoras-vigentes

* + 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.

1. 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:
2. 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);
3. Instructions for the technical bids;
4. 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 design and fabrication of equipment and materials;
5. Commissioning spare parts, consumables, tools and special tools for assembly, commissioning and start up, according to Exhibit VIII - Directives for Commissioning Process and equipment technical documentation;
6. Local content certification, when applicable
7. Operational Goods list and Operational Spare parts list for the period defined on Exhibit I,, 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);
8. Operational Goods as per defined on Exhibit I – Scope of Supply;
9. Center of gravity information and lifting plan;
10. Weight limit, maximum dimensions, drawings, documents, advanced instruction, maintenance, operation and installation manuals in Brazilian Portuguese language;
11. List of sub-vendors;
12. Vendor computer aided engineering (CAE) designs, when applicable;
13. Complementary technical documentation;
14. Warranty conditions;
15. Technical Support;
16. Factory inspection;
17. Quality assurance requirements;
18. Quality plan;
19. Motion requirements;
20. Packing and transportation;
21. Delivery conditions;
22. Commissioning requirements;
23. Preservation instructions, also for long-term storage;
24. All Brazilian regulatory standards (NRs), according to item 2 and its subitems, as well as any applicable rule and regulation;
25. Painting requirements in accordance with international codes and standards;
26. Capital Spares, Capital Goods and Mooring Components as per defined on Exhibit I – Scope of Supply;
27. Construction and assembly minimum requirements, where applicable;
28. Reference list of similar installations;
29. List of representatives in Brazil and local service centers, if available;
30. Applicable requirements of this Exhibit;
31. Applicable requirements of the Exhibit III – Directives for Product Development;
32. Expediting conditions;
33. Commissioning Site conditions (location, climate, ambient temperature range, relative humidity, average salinity);
34. Operation Site conditions (location, climate, ambient temperature range, relative humidity, average salinity).
    1. Specifically concerning “Glass Reinforced Plastic” (GRP), the Vendor scope of supply shall consider fabrication, supervision of assembling and engineering analyses (stress and support).

1. PURCHASING
   1. Seller shall submit a detailed purchasing control map to Buyer within thirty (30) Days from the Agreement Effective Date.
   2. 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:
2. Issuance of technical specification and technical and contractual documents;
3. Issuance of “Request for Proposals”;
4. Receipt of proposals;
5. Issuance of “Technical Bid Evaluations” (TBE);
6. Receipt of the Buyer “Technical Bid Evaluations”, if applicable;
7. Issuance of “Purchase Orders”;
8. Establish a kickoff meeting with suppliers of main equipment, in which Buyer may join;
9. Analysis of Vendors documents;
10. Pre-inspection meeting;
11. Manufacturing follow up (schedule);
12. Inspection follow up;
13. Documentation conclusion (“For Construction”);
14. Completion of manufacture;
15. “Factory Acceptance Test” or final witnessed test (if applicable);
16. Final inspection (packing and transportation);
17. Transportation time;
18. Customs clearance;
19. Delivery at Seller’s job Site;
20. Yard delivery inspection;
21. 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. According to the project phase, the frequency of the map updates may be changed if agreed between Buyer and Seller.
         1. Regarding the update of the purchasing control map, Seller shall use a tool/system that allows online updating, consultation and reports downloads.
      2. 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.
      3. 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.
      4. 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 the Classification Society. Materials shall be manufactured according to internationally recognized standards for the offshore oil drilling and production industries and shall comply with the approved design, 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:
22. Process and mechanical static equipment and components: pressure, flow, capacity and fluid characteristics;
23. Rotating equipment (turbomachinery, compressors and pumps): fluid characteristics, flow, suction and discharge pressures;
24. Handling equipment (cranes, winches, reels) and mooring components: maximum load and type of driver (electric or diesel motor) for cranes;;
25. Valves/piping: diameter, pressure rate;
26. Electric equipment: voltage and power;
27. Batteries: capacity (Ampere-hours);
28. 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.
29. Automation and instrumentation:
    1. In general: process conditions (flow, pressure, temperature and fluid characteristics);
    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. Buyer reserves to the right to reject any Materials or Equipment supplied by Seller that do not meet the specified requirements of Exhibit II - General Technical Description and its annexes, and Seller shall replace them, at Seller’s expense, within a time compatible with the time schedule of the Unit.
       2. Except for Equipment listed on the vendor list (item 19 - I-ET-3010.2K-1200-941-P4X-001), Buyer, at its sole discretion, may fully or partially waive Seller of providing Materials or Equipment that do not fulfill all requirements set forth in 4.3.1. For those cases, Seller shall submit the reasons for Buyer approval.
    6. Seller shall procure (and shall cause its Vendors to procure, where applicable) Materials and Equipment with Vendors established in the Vendors List.
    7. The request for non-compliance with requirement 4.4 shall be formalized to Buyer, which evaluates and publishes an opinion no later than fifteen (15) days after receipt of the request.
    8. Buyer may, under its sole discretion, request an inspection at the Vendor’s and Subcontractor's facilities.
    9. Not applicable.
    10. Technical proposals shall be available to Buyer and shall include the following:
30. A complete description of the scope of supply;
31. A list of deviations from technical Specifications and standards, including reasons for those deviations; this list shall be presented in a spreadsheet with the following columns: “Technical Specification / Standard”, “Item Description”, “Deviation” and “Performance Impact”;
32. A complete data sheet, including painting scheme, that shall be in accordance with international codes and standards for painting;
33. An outline drawing showing the key dimensions and maintenance area;
34. The weight and the center of gravity;
35. Data on noise and vibration;
36. Delivery schedule;
37. 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 Process, as well as Operational Goods list and Operational Spare parts list for the period defined on Exhibit I;
38. A list of all special tools, Capital Goods and Capital Spares (when applicable);
39. The name, address, telephone, e-mail address and service network of a contact person from main Vendor and its sub-vendors;
40. All documents and drawings required by the Agreement;
41. A reference list of similar units;
42. Required inspections and/or tests (ITP template);
43. The manufacturer’ schedule;
44. Quality/inspection levels;
45. A description of warranties;
46. Technical Support and training to be provided;
47. Layout Drawings;
48. Performance curves, when applicable;
49. List of sub-vendors;
50. Quality plan;
51. List of lube/hydraulic oils;
52. List of consumable materials needed during commissioning, pre-operation and start-up;
53. Store and preservation recommendations;
54. List of service centers (technical assistance);
55. Environmental required conditions for commissioning and operation.
    1. Seller shall issue one (1) Technical Bid Evaluation (TBE) for each equipment/ material or group of materials and submit to Buyer. Technical Bid Evaluation shall be carried out by Seller’s engineering team. This evaluation intends to verify Vendor technical proposal compliance with “Material Requisition” and technical Specifications issued by Seller, clearly indicating the deviations.
       1. The TBE to be submitted for Buyer analysis shall contain all technical requirements and “Material Requisition” for each equipment/ material or group of materials. It is Seller’s responsibility to assure that the Vendors’ proposals are in full compliance with contractual requirements.
       2. Under its sole discretion, Buyer will select the TBEs to be analyzed to verify deviations from Agreement and its Exhibits. For these cases, Seller shall take into consideration Buyers’s comments to incorporate into Purchase Order or subsequent revision(s) at its own cost.
       3. 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.
    2. Seller will be responsible for reviewing all documents issued by the Vendor during the delivery phase. Seller shall maintain adherence to what was previously contracted, according to the design.
    3. All “As Purchased” documents shall be delivered to Buyer.
    4. Seller shall deliver to Buyer the documents listed in items 4.8, 4.9, 4.10 and 4.11 as per Exhibit III – Directives for Product Development. Buyer shall receive all documents in English or Portuguese language, except those required by Brazilian Authorities whose language is mandatory Portuguese.
    5. In addition to the provisions of item 1.5 of this Exhibit, Seller shall include in its scope and in the price of the Unit:
56. Spare parts and consumables: all spare parts and consumables for testing, pre-commissioning, commissioning / start-up;
57. Operational Goods included in Exhibit I – Scope of Supply;
58. Capital Goods and Capital Spares: all spare parts included in Exhibit I – Scope of Supply;
59. Special tools for assembly, maintenance, commissioning and operation of the equipment foreseen in Seller's Scope of Supply.
    * 1. Materials lists mentioned on items 4.13a), 4.13b), 4.13c) and 4.13d) shall be submitted to Buyer’s comments. Buyer reserves the right to verify and contest whether the lists are consistent with its experience in previous projects, and Seller is responsible to provide the necessary clarifications in these cases, including provide other Vendor references for comparison purposes.
      2. Seller shall prepare and deliver to Buyer a consolidated list of all Materials mentioned in item 4.13, previously consolidated by the parties in accordance with item 4.13.1, at most 18 (eighteen) months before the Unit's departure from the Integration Yard. Seller shall be aware of the deadlines for delivery of the Materials in order to make it possible for all Materials to be on board of the Unit when departing from the Integration Yard. Single deliveries of Materials are not acceptable at any time. These Materials must be stored and preserved in containers and properly tracked to comply with customs and logistical requirements.
      3. The consolidated list mentioned on item 4.13.2 shall be submitted and commented by the Operation Contract Team in order to guarantee the availability, maintainability and operability of the Unit during the period that the operation is its responsibility. In the absence of items detected by the Operation Contract Team, it is the Seller’s responsibility to provide the missing items without any cost to Buyer.
      4. To prove the required operational performance, the Seller must present for each item the certificate of technical capacity, according to the model in Appendix 1.
      5. 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.
    1. Material and coating Specification for all bolts, studs and nuts shall be selected according to international codes and standards. Seller shall present a plan, together with PO emission, indicating the suppliers involved and how inspections will be performed. In case of subcontracted scope, the same applies to Subcontractors.
    2. All Seller’s Vendors, sub-vendors and Subcontractors shall comply with international codes and standards for painting when fabricating/ supplying Equipment/ valves/ skid/ Material.
    3. At any time, Buyer can reject any Materials or Equipment supplied by Seller, Vendors, sub-vendors or Subcontractors that do not meet the Agreement 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 Agreement.
    4. Seller and its Subcontractors shall procure Materials and Equipment established in the Vendor List using the suppliers indicated therein, as per Exhibit II – General Technical Description.
       1. Not applicable.
       2. Seller’s compliance with the Vendor List does not prevent Buyer from commenting technical documents issued by such Vendors.
       3. In case Seller wants to present a Vendor different (“Alternate Vendor”) from the ones previously presented by Buyer, it will be necessary to prove that the equipment is field proven, according to the definition given in item 4.3.1. 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:
60. Technical data (pressure, flow, temperature) of the equipment;
61. Location of the installation;
62. Number of hours in operation;
63. End user and facility location;
    * + 1. The complete set of documents described on items 4.3.1 and 4.17.3 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 4.17.3, Buyer reserves the right to confirm 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. The fact of being included in this Vendor List does not constitute endorsement of the product and/or performance and does not relieve Seller of its responsibility for complying with the contractual requirement for the quality, conformance to the GTD, Seller’s specifications and performance requirements, adherence to delivery schedule, and provision of all required documentation for the purchased items.
    1. 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):
64. Operation and maintenance manuals of equipment, packages, and their systems;
65. The safety of the equipment, packages, and Buyer’s personnel, such as warnings, storage, safety plans, etc.;
66. Procedures for commissioning, pre-operation, start-up, and shutdown;
67. Procedures for normal operations;
68. Procedures for emergencies;
69. General procedures regarding health, safety, and the environment.
    1. Seller shall deliver to Buyer, on a monthly 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 Seller’s 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.
70. 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 schedule a kick-off meeting with each supplier, within ten (10) Days from the signature of the Purchase Order.
    3. Seller shall submit a detailed expediting procedure to Buyer analysis, within thirty (30) Days from the Agreement Effective Date.
    4. Seller shall provide all information on a monthly basis regarding the progress of the works, from each Vendor and/or its sub-Vendors, to Buyer. The report shall present the comparison between progress achieved and progress planned. In case of delay in planned activities, the report shall contain the reasons for the delay and an action plan to recover the schedule.
    5. Seller shall allow Buyer or its subcontractors to access Vendors or sub-Vendors facilities to expedite any fabrication phase whenever Buyer deems necessary.
71. MANUFACTURING SURVEY INSPECTION
    1. Vendor shall develop and implement a Test and Inspection Plan (ITP) containing hold points, witness points, schedule of inspection and tests and events to be followed by Seller´s inspection team.
       1. At its sole discretion, to check the compliance of Agreement Specifications and requirements, Buyer may request additional information of any Material and Equipment.
       2. 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. Buyer will not request hold points for inspections. However, witness points will be requested, which Seller shall notify in advance.
    3. For all inspections to be witnessed by Buyer, the program for inspections shall be confirmed to Buyer at least eighteen (18) days prior to the date scheduled for each inspection, with respect to Vendors located in Brazil, and twenty-eight (28) Days prior to each inspection for Vendors located outside Brazil.
       1. Seller and Buyer will define the final list of Equipment to be inspected, including Buyer’s witness points. Such points shall be included in the inspection and test plan.
    4. Seller shall issue an inspection report to Buyer after each inspection or test. The minimum content of such reports must be according to the respective quality control plan, defined in Exhibit VII – Directives for Quality Assurance System. Additionally, these reports shall also be part of project records.
    5. At its discretion, Buyer may conduct detailed inspections in addition to those mentioned in the approved Inspection and Test Plan.
    6. 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 standards
    7. Seller shall present in the pre-inspection meeting with Vendors, hold and witness points of Seller, Buyer and Classification Society.
    8. At its discretion, Buyer may contest any Material or Equipment not complying with Exhibit II – General Technical Description, and manufacturing deviations as well. In case of permanent contestation by Buyer and/or Classification Society, a new Material/Equipment shall be supplied without any additional charge to Buyer.
    9. Factory Acceptance Test (FAT)
       1. For Equipment that requires FAT, the FAT procedure (including performance test) shall be developed by Seller’s Vendors or sub-vendors and submitted to Buyer for information, at least, three (3) months prior to the FAT planning.
       2. FAT shall be part of Seller’s Vendors or sub-vendors scope of supply and shall be witnessed by Classification Society surveyor. Buyer's representative, at its sole discretion, will witness equipment in common agreement with Seller.
    10. 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 approval and Buyer analysis an action plan with a deadline to clear the issues.
        2. Seller shall inform Buyer when the Equipment/skid/package is ready for transportation. Buyer, at its discretion, will attend the release inspection, only as witness, before Equipment/skid/package 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.
        3. The minimum content of the IRC must be included in the respective quality control plan. Additionally, these IRC shall also be part of project records.
        4. Seller shall ensure, before packing for shipment, that Equipment/ skids /Material is painted according to international codes and standards or other painting scheme accepted by Buyer, so they can withstand with weather and marine environment (Unit operation conditions).
72. 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, before the handover to operation.
       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. 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.
73. CUSTOMS CLEARANCE
    1. For Equipment and Materials received at 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 bear the defray payment of fines or penalties resulting from omission on the part of Seller or its failure 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.
    4. The customs references recorded by Seller shall include the control of all Materials and Equipment, and the numbers of all Purchase Orders.
    5. Seller shall maintain its registration in such a manner that, with respect to each shipment, information of all Materials and Equipment utilized, stored or discarded may be checked by Buyer and/or by the customs authorities.
74. 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, Capital Goods, Mooring Components, Operational Spare Parts, Operational Goods and special tools.
    2. All spare parts and special tools for assembly, commissioning, start-up, and maintenance should preferably be supplied in conjunction with each piece of Equipment/package, delivered at construction and assembly Site.
    3. 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.
    4. Seller shall make sure that all Materials, Equipment, commissioning spare parts, special tools, Operational Spare Parts, Operational Goods, Mooring Components, Capital Goods and Capital Spares delivered are correct as to type, quantity, condition, technical Specification and with the appropriate project identification marks.
    5. Seller shall conduct a complete and detailed physical examination of all Materials, Equipment, commissioning spare parts, special tools, Operational Spare Parts, Operational Goods, Capital Goods and Capital Spares received after 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.
    6. 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.
    7. 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.
    8. Seller shall properly store, preserve, and commission the Materials, Equipment, commissioning spare parts, special tools, Operational Spare Parts, Operational Goods, Mooring Components, Capital Goods 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.
    9. Seller shall identify all Materials, Equipment, commissioning spare parts, special tools, Operational Spare Parts, Operational Goods, Mooring Components, Capital Goods 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:
75. Purchase Order and FPSO Number;
76. Project name;
77. Item, TAG and serial numbers;
78. Identity code according to engineering documents, whenever applicable;
79. Label code as registered at Material Information and Control System, defined at Exhibit XVI – Computational Tools and Integrated Management System
80. Manufacturer’s name, quantity and address, as a minimum;
81. 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 Process and Vendors or sub-vendors procedures.
    2. Seller shall issue a delivery photographic report of all materials, necessarily highlighting deviations that were not indicated in the final inspection at Vendors and sub-vendors.
    3. Seller shall maintain a daily basis record of all Materials, Equipment, spare parts and special tools received each day, and shall communicate this information to the Materials Information and Control System as defined in item 10.
    4. 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 Process and Exhibit XVI - Computational Tools and Integrated Management System.
82. MATERIALS INFORMATION AND CONTROL SYSTEM
    1. Seller shall establish a specific and dedicated computer-based information system that permits strict control over all Materials, Equipment and spare parts during the contractual period, according to Exhibit XVI - Computational Tools and Integrated Management System.
    2. Seller shall present the Materials Information and Control System to Buyer within 2 (two) months from the Agreement signature, informing software license acquisition and maintenance. Buyer may request at any time access to system information.
    3. Materials Information Control System shall represent a coordinated and integrated effort to organize the phases of design, purchase, expediting, transportation and delivery in conjunction with manufacture and construction work.
83. REPORTS
    1. Bid Status Report
       1. Seller shall submit a weekly report on the general status of all bids submitted in response to Agreement, including the scheduled and actual issue dates, containing, at least, the following documents:
84. Request for bids issuance;
85. Bids technical evaluation;
86. Purchase Order issuance.
    * 1. Seller shall submit a bid strategy of MTOs (Material Take-off) for all disciplines (structure, piping, EIT, etc) compatible with construction schedule.
    1. Purchase Status Report
       1. Each week, Seller shall prepare and submit a report, including the scheduled and actual issue dates, containing, at, the following data for each Purchase Order:
87. TAG and equipment description;
88. Purchase Order issue date and number;
89. Vendor name;
90. KOM date;
91. Fabrication period;
92. Incoterms delivery conditions;
93. Transportation period;
94. Customs release period;
95. On-site date;
96. Contractual delivery date;
97. Scheduled delivery date;
98. Float between contractual delivery date and on-site date.
    1. Expediting Reports
       1. Seller shall prepare and make available to Buyer reports on its expediting and inspection activities, including the details of any visits made. In particular, those reports shall identify potential problems sufficiently far in advance to permit effective action.
    2. Monthly Procurement Report
       1. Seller shall prepare and issue to Buyer a procurement report as part of the Monthly Progress Report of the Agreement. The report shall summarize and highlight the status of all procurement activities included in scope of this Exhibit, containing, at least, the following information:
99. Physical progress of procurement, engineering and fabrication phases;
100. Purchase Order general progress;
101. Action plan to be taken to recover any deviation in contractual equipment delivery date.
     1. General conditions
        1. All data included in the reports described above shall be stored in a single database, so as to permit the immediate issue of any new information that supplements an existing report.
102. INVENTORY CONTROL
     1. Seller shall set up a strict computer aided inventory controls for Materials, Equipment, commissioning spare parts, Operational Spare Parts, Operational Goods, Mooring Components, Capital Goods, Capital Spares and special tools, to permit immediate verification of those Materials already used, against those in stock, according to Exhibit XVI - Computational Tools and Integrated Management System.
        1. 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.
        2. 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:
103. All access areas;
104. The layout of storage areas;
105. A system permitting visual identification of all Materials in storage (such as color coding);
106. Storage criteria, according to the category of materials;
107. Special precautions to be adopted;
108. Traceability;
109. Tractability.
     1. If Buyer contests 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.
     3. Seller shall provide, before the Mechanical Completion date, a complete Unit list containing the information of the following items: Equipment, instruments, commissioning spare parts, Operational Spare Parts, Operational Goods, Mooring Components, Capital Goods, Capital Spares and special tools, according to Exhibit XVI – Computational Tools and Integrated Management System.
     4. 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 in the Unit Equipment, instruments, parts and spare parts lists to be prepared by Seller.
     5. Seller shall provide 12 (twelve) months before the Sail Away date:
        1. A complete list of equipment and instruments, in an MS-Excel or MS-Access file, containing the following information related of each equipment or instrument:
110. Module;
111. System;
112. Description;
113. Model;
114. Vendor;
115. Part number;
116. Serial number;
117. Quantity;
118. On board location (TAG number).
     1. The complete list requested on item 4.13.2 shall be provided in an MS-Excel or MS-Access file and shall contain the following information:
119. Tag number of the main equipment;
120. Description;
121. Model;
122. Sub-vendor;
123. Sub-vendor part number;
124. Sub-vendor serial number.
     1. It is noteworthy that the part number/ serial number shall consider the references of the sub-vendor, where applicable, in order to allow future purchases directly with the sub-vendor, and not through the main Vendor.
125. DOCUMENTATION
     1. Seller shall send to Buyer all Vendor documents, in their various revisions, as far as they are submitted by Vendors.
     2. Seller shall submit a complete list of documents informed by each Vendor.
     3. Submission of such a document does not exempt Vendor from sending the data book.
     4. For PDF format files, they shall be sent with a text search or text identification device (OCR) enabled.
     5. Prior to Equipment and systems start up, Seller shall deliver to Buyer the “As Built” documents. In case of changes on documentation after commissioning and start-up (offshore), it shall be revised and forwarded to Buyer.
     6. All Vendors data books shall be delivered until the Unit Substantial Completion Milestone. In case of changes on documentation after commissioning and start-up (offshore), they shall be revised and forwarded to Buyer.
     7. Seller shall issue data book to be delivered to Buyer, including all design and construction documentation on all Materials purchased from Seller and its sub-vendors, broken down into five (5) parts and containing at least the following details:

* The first part (section 1) shall list all documents, drawings, data sheets, lists, technical specifications, performance curves, calculation reports, spare parts list and others;
* The second part (section 2) shall include construction, maintenance and operating manuals, instructions for preservation and commissioning and all catalogs, including the sub-vendors;
* The third part (section 3) shall include all certificates of Materials and Equipment, certificates of electrical cables and equipment to hazardous areas, all tests, 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;
* 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 skilled professional (*Profissional Habilitado*) registered with the Brazilian Engineering Council ("CREA");
* 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. The following documents shall be included on data books mentioned on item 13.7:
* Vendor equipment data sheet;
* 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. 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, shall have relief capacity certificates (equipment and piping systems);
* MAWP calculation memory and the minimum thicknesses of the components;
* Hydrostatic test report from the manufacturer;
* Leak test report, if applicable;
* List of used procedures during manufacturing:  It shall be presented all procedures used during manufacturing and/or assembly, such as welding procedures specification (WPS), welding procedure qualification records (PQR), nondestructive testing (NDT) procedures, procedures for applicable heat treatments, if any, and procedures for hydrostatic testing, and others;
* 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);
* All instruments calibration records (certificates). All calibration shall be performed by laboratories that comply with the requirements of ISO/IEC 17025;
* Electric/electronic equipment conformity certificates for types of protection applied in potentially explosive atmosphere and for protection levels;

1. EQUIPMENT SUPPLIED BY THE 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 or spare parts supplied by Buyer in the same manner as described in this Exhibit.
   3. All Materials, Equipment and spare parts supplied by Buyer shall be treated as materials supplied by Seller. including with respect to engineering, storing, preserving, adapting, installing, testing, etc., except for their warranty, which is Buyer's responsibility.
2. TECHNICAL SUPPORT
   1. For all equipment of Seller’s Scope of Supply, Seller shall plan the attendance of Vendors’ technicians, in compliance with Exhibit VIII – Directives for Commissioning Process requirements. Vendors’ technicians shall be available to assist Seller during assembling, commissioning, start-up and assisted operation for each equipment, according to this plan. Seller shall establish the minimum technical assistance manhours during assembly, commissioning, start-up and assisted operation for each piece of equipment, skid or module.
   2. The Technical Support services will take place at Seller’s job Sites and Unit final location (Offshore). Each Vendor will be required to describe in detail the activities that are to be supervised by its technicians through the final phase of start-up assistance.
   3. Seller shall consider the manhours used during the Vendors and sub-vendors’ Technical Support phases, which shall be included in the Agreement Lump Sum Price. Any additional technical assistance for any Seller’s equipment will be the Seller’s responsibility.
   4. Seller shall consider the attendance of the main Vendors when carrying out the APR (Preliminary Risk Analysis) and HAZOP (Hazards and Operability Studies) safety studies.
   5. Seller shall issue a final Vendor mobilization plan for Technical Support phases abovementioned.
3. WARRANTY
   1. All Equipment and respective components or accessories, shall be warranted by the Seller according to article 17 of this Agreement. The warranty is to cover any defect or fault of design, manufacturing, fabrication, raw material or labor.
4. VENDOR LIST
   1. Buyer Vendor List is according Exhibit II. For the equipment not covered by the contractual Vendor List, it is the Seller’s obligation to use only field proven equipment. See definitions in item 4.

1. APPENDIX

Appendix 1 - Certificate of technical capacity template