**EXHIBIT VII**

**DIRECTIVES FOR QUALITY ASSURANCE SYSTEM**

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

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

**Rev 0: Bid original version**

**SUMMARY**

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# OBJECT

* 1. SELLER and its subcontractors and suppliers shall comply with the requirements of the quality management system defined in Standard ISO 9001:2015, and the supplementary requirements specified in Section 3 below.
	2. BUYER reserves the right to check the application and maintenance of the requirements herein defined, at any time, including those related to suppliers and subcontractors. This may include diligences, inspections, audits and application of checklists.

# REFERENCE DOCUMENTS

* 1. ISO 9001:2015 – Quality Management Systems
	2. ISO 19011 - 2018 – Guidelines for Auditing Quality Systems – Part 1 – Auditing
	3. NI-1710 – Coding of Technical Engineering Documents
	4. Classification Society Rules
	5. ISO/IEC 17025 - General requirements for the competence of testing and calibration laboratories
	6. Brazilian Regulatory Standards from Ministry of Labor
	7. I-ET-3010.2K-1200-941-P4X-001– GTD - General Technical Description
	8. The Agreement and its exhibits.

# SUPPLEMENTARY REQUIREMENTS

* 1. Follows the ISO 9001:2015 requirements, identified as supplementary requirements to the quality management system of SELLER and Subcontractors in whole supply chain, herein denominated Organization. Items identified as “not applicable” may be implemented by the Organization’s option, at its own expenses.
	2. Understanding the organization and its context
		1. The requirements of item 4.1 of ISO 9001:2015 are not applicable.

* 1. Understanding the needs and expectations of interested parties
		1. The requirements of item 4.2 of ISO 9001:2015 are not applicable.
	2. Determining the scope of the quality management system
		1. The scope of the quality managements system shall be compatible with the contractual Scope of Supply (see EXHIBIT I), GTD and the remaining contractual exhibits, appendixes, addendums, technical standards, technical specifications and legal requirements.
	3. Quality management system and its process
		1. SELLER shall implement and maintain, at its own expenses, during the entire term of this Agreement, a quality management system.
		2. In addition to the requirement of item 4.4 of ISO 9001:2015 SELLER shall issue and implement a specific Quality Plan containing and addressing all phases of the contractual Scope of Supply, including all the supplementary requirements of this exhibit.
		3. SELLER shall submit the Quality Plan for BUYER appraisal no later than 90 (ninety) days after Agreement effective date.
		4. The Quality Plan shall define:

a) Quality objectives to be attained, as herein defined or in accordance with the remaining exhibits, meeting the following requirements:

* Shall be expressed in measurable terms;
* Shall express aspects of time, cost and quality related to the Agreement.

b) The administrative organization chart and specific assignments of responsibility and authority related to each of the Agreement phases;

c) Procedures, work methods and instructions to be applied, including titles and number, as well as linking these documents with ISO 9001:2015 requirements;

d) Planning and schedule for the implementation of the Quality Plan itself, procedures, and work instructions, including a master list with all documents that are applicable to the Scope of Supply;

e) Planning for the design (execution and verification), inspections and tests, commissioning activities and auditing which are considered adequate for the different phases of the Agreement, defining all holding points to be considered;

f) Records and performance indicators required by technical standards related to the Scope of Supply shall be included in the Quality Plan as well;

g) All personnel qualification as required by the contractual exhibits and applicable standards and technical specifications;

h) Fulfilling all the requirements of the remaining contractual exhibits;

* + 1. SELLER design engineering and construction’s Subcontractors shall issue its own Quality Plans as directed in this exhibit.
		2. SELLER shall deliver to BUYER all required documents on this exhibits as per EXHIBIT III – Directives for Product Development.
	1. Leadership and Commitment
		1. SELLER shall provide for each Site a quality assurance’s responsible to supervise the implementation of the Quality Management Plan, the inspection plans and associated executive procedures (during fabrication, construction and assembly), related to the Scope of Supply for the corresponding Site.
	2. Policy
		1. The requirements of item 5.2 of ISO 9001:2015 are not applicable.
	3. Actions to address risks and opportunities
		1. The requirements of item 6.1 of ISO 9001:2015 are not applicable.
	4. Quality objectives and planning to achieve them
		1. The requirements of item 6.2 of ISO 9001:2015 are applicable, except for item 6.2.1(a) of ISO 9001:2015.
		2. In addition to item 6.2 of ISO 9001:2015 the quality objectives defined by SELLER shall be turned into measurable quality indicators (see also item 3.5.4).
		3. In addition to the quality indicators mentioned above, SELLER shall also create and follow up the indicators required by the remaining contractual exhibits.
	5. Resources
		1. In addition to item 7.1.3 of ISO 9001:2015 the SELLER shall follow all the requirements of EXHIBIT I - SCOPE OF SUPPLY, EXHIBIT II - GENERAL TECHNICAL DESCRIPTION, as well as EXHIBIT III - DIRECTIVES FOR PRODUCT DEVELOPMENT, EXHIBIT IV - DIRECTIVES FOR PRODUCT FABRICATION, EXHIBIT V - DIRECTIVES FOR ACQUISITIONS, EXHIBIT VI - DIRECTIVES FOR PLANNING AND CONTROL and EXHIBIT VIII - DIRECTIVES FOR COMMISSIONING PROCESS.
		2. In addition to item 7.1.5 of ISO 9001:2015 SELLER shall make available at SELLER’s job Site all technical documents relating to inspection, measurement and testing devices. Measurements that affect the product quality shall only be performed with instruments and measuring devices that are properly calibrated and within the validity of its calibration.
		3. In addition to item 7.1.5 of ISO 9001:2015 the SELLER shall guarantee that all calibrations are performed by laboratories that comply with the requirements of ISO/IEC 17025.
		4. In addition to item 7.1.6 of ISO 9001:2015 the SELLER shall implement a systematic for performing critical evaluation of the calibrations performed, in order to guarantee that the results obtained after calibration will result in products that are in straight compliance with the applicable technical requirements.
	6. Competence
		1. SELLER shall also attend all the requirements of personnel and procedure qualification cited in EXHIBIT III - DIRECTIVES FOR PRODUCT DEVELOPMENT, EXHIBIT IV - DIRECTIVES FOR PRODUCT FABRICATION, EXHIBIT V - DIRECTIVES FOR ACQUISITIONS, EXHIBIT VI - DIRECTIVES FOR PLANNING AND CONTROL, EXHIBIT VIII - DIRECTIVES FOR COMMISSIONING PROCESS and in compliance with requirements established by Classification Society and applicable laws.
	7. Awareness
		1. The requirements of item 7.3 of ISO 9001:2015 are not applicable.
	8. Documented information
		1. In addition to item 7.5 of ISO 9001:2015 the SELLER shall issue all documents that are applicable to the Scope of Supply in conformance with the requirements of BUYER standards N-1710.
		2. Note: All SELLER’s corporate documents may be used, as long as they comply with the requirements above.
		3. In addition to item 7.5 of the ISO 9001:2015, all project documents within the Scope of Supply shall be controlled using an electronic documentation management system in accordance with the requirements of the Agreement and its exhibits.
		4. In addition to item 7.5 of ISO 9001:2015 SELLER must also establish, as quality registers, those originated from the requirements of specific rules for each discipline.
		5. The quality registers for each kind of product shall be kept available by the SELLER to BUYER or to the inspection company on behalf of BUYER are shown on the applicable exhibits.
		6. SELLER must maintain a record of such documentation for 5 (five) years, after BUYER issue the Final Completion Certificate.
		7. For the format and minimum requirements for data books, SELLER shall follow, at least, requirements contained in the Appendix 2 – Databooks.
	9. Operational planning and control
		1. SELLER shall elaborate inspection and test plans (ITP) concerning all equipment being supplied, construction and assembly critical activities, as well as commissioning activities, even if these activities are subcontracted. These plans shall be elaborated in accordance with the following:

a) Assure compatibility with design, inspections procedures and internal documents applicable.

b) Indicate devices and equipment (with tolerances) used to check critical dimensions, functional tests, among others.

c) Indicate personnel qualification requirements.

d) Identify phases for inspections and checking: hold-points, witness-points or review.

e) Method, location and extension of NDT.

f) Indicate procedures, standards and acceptance criteria for all quality requirements.

g) Identify and issue quality records.

Notes:

1) SELLER shall indicate in the inspection and test plans its participation or the participation of the inspection company contracted by it.

2) BUYER, at its sole discretion, may define its participation on inspections and tests, upon prior notice to SELLER.

* + 1. SELLER shall follow also additional requirements for the ITPs that are listed on other exhibits of the Agreement.
	1. Requirements for products and services
		1. In addition to item 8.2.3.1 of ISO 9001:2015 all technical specifications cited in the Agreement shall be considered as BUYER’s requirements for products and services.
		2. In addition to item 8.2.3.2 of ISO 9001:2015, SELLER shall present to BUYER, prior to commencement of work, the record of this review.
	2. Design and developments of the products and services
		1. In addition to item 8.3 of ISO 9001:2015 SELLER shall attend all the requirements for design and development cited in GTD and other exhibits of the Agreement.
		2. SELLER shall establish, implement, and maintain a design verification plan, including:
* Method or methods combination to be applied
* Documents to be verified by discipline and the verification’s levels applicable
* Period of verification
* Procedures applicable
* Responsible personnel
* Verification copy identification
* Verification records
	+ 1. SELLER shall establish, implement, and maintain systems for assuring consistence among documents affected by a same modification.
	1. Control of externally provided processes, products and services
		1. In addition to item 8.4 of ISO 9001:2015 SELLER shall attend all the requirements for externally provided processes, products and services cited in all other exhibits of this Agreement.
	2. Production and service provision
		1. In addition to item 8.5 of ISO 9001:2015 SELLER shall attend all the requirements of EXHIBIT V - DIRECTIVES FOR ACQUISITIONS.
		2. In addition to item 8.5.1 of ISO 9001:2015 SELLER shall guarantee that all tests are performed by laboratories that comply with the requirements of ISO/IEC 17025. These tests include but are not limited to mechanical tests, corrosion tests, metallographic tests, chemical tests, electrical tests, as applicable to all products and services provided by SELLER and by its suppliers.
		3. In addition to item 8.5.2 of ISO 9001:2015 SELLER shall consider the definitions and extension of traceability as applied to materials/ disciplines, as presented in Appendix 1 of this document.
		4. In addition to item 8.5.2 of ISO 9001:2015 SELLER shall establish, implement and maintain traceability for welders, NDT report numbers and welding procedure specification (WPS) to all welded joints. When FT (full traceability) is specified for the welded joint the welding consumable batch number shall also be traceable. Each weld joint shall be properly identified with the welder who made it (welder TAG). For hull structure, punch marks are prohibited.
		5. SELLER shall ensure that all loose valves, tubes and instruments are provided with appropriate protections and packaging (for example, plastic caps where applicable). SELLER shall also ensure that the panels and motors will be provided with VCI (Volatile Corrosion Inhibitor) impregnated plastic protection and external plug for heating resistance.
		6. In addition to item 8.5.2 of ISO 9001:2015, the Organization shall establish, implement and maintain traceability for materials and activities within the scope of the fabrication and construction and assembly processes as described in EXHIBIT XVI (COMPUTATIONAL TOOLS AND INTEGRATED MANAGEMENT SYSTEM).
	3. Release of products and services
		1. In addition to item 8.6 of ISO 9001:2015 SELLER shall guarantee that all tests, examinations, the acceptance criteria, as well as the applicable results and reports are in straight compliance with the technical requirements that are cited in the applicable standards, technical specifications, contractual exhibits, or elsewhere within the Agreement.
		2. In addition to item 8.6 of ISO 9001:2015, if any doubt regarding the conformance of the product or service is formally registered by BUYER, SELLER shall perform additional tests and/or examinations as agreed between the parts in order to explicitly assure its conformance.
		3. In addition to item 8.6 of ISO 9001:2015, the Organization shall establish, implement and maintain an inspection program to check the products and services being released through the use of checklists. These checklists shall include all the technical, contractual and legal requirements for all disciplines. The Organization shall submit the inspection program to BUYER.
	4. Monitoring measurement analysis and evaluation
		1. In addition to item 9.1 of ISO 9001:2015 SELLER shall establish, implement and maintain quality indicators applicable to the Scope of Supply. These indicators shall monitor and measure its main processes and products. The results of these indicators shall be evaluated periodically in order to enhance the general quality of all processes and products.
		2. In addition to item 9.1 of the ISO 9001:2015, SELLER shall include all the quality indicators cited in EXHIBIT III - DIRECTIVES FOR PRODUCT DEVELOPMENT, EXHIBIT IV - DIRECTIVES FOR PRODUCT FABRICATION, EXHIBIT V - DIRECTIVES FOR ACQUISITIONS and EXHIBIT VIII - DIRECTIVES FOR COMMISSIONING PROCESS.
		3. In addition to item 9.1.2 of ISO 9001:2015 SELLER shall consider as customer feedback the following:

a) Audits performed by BUYER;

b) Checklists applied by the BUYER;

c) Formal complaints issued by the BUYER.

* 1. Internal audits
		1. In addition to item 9.2 of ISO 9001:2015, the Organization shall present an auditing program according to ISO 19011, including the definition of the work physical progress percentages where audits shall be carried out as well as the date forecast for their performance.
		2. In addition to item 9.2 of ISO 9001:2015, the Organization shall include in the Auditing Program, besides the Quality System Management process, all the technical disciplines within the contracted Scope of Supply (e.g. painting, welding, non-destructive examinations, and so on).
		3. In addition to item 9.3 of ISO 9001:2015, the Organization shall perform at least two management reviews per year.
	2. Non-conformities and corrective actions
		1. In addition to item 10.2 of ISO 9001:2015 Nonconformities on the products or processes detected by the BUYER (including those cited in item 3.20.3) and reported to the SELLER shall always require that a nonconformity report be issued by the SELLER. This includes the processes and products from subcontractors and suppliers.
	3. Continual improvement
		1. In addition to item 10.3 of ISO 9001:2015 SELLER shall seek the continuous improvement of the quality indicators.

# APPENDIX

APPENDIX 1 - REQUIREMENTS FOR MATERIALS TRACEABILITY

APPENDIX 2 - DATABOOKS