INDEX OF REVISIONS

REV.	DESCRIPTION AND/OR ALTERED SHEETS
0	Original Issue
A	Number of this spec; index; altered items 1; 2; 4; 5; 6; 7; 8; 9; 10; 11 e 12; item 4 (Equipment Categorization) excluded.
B	Items 2; 5; 9 e 12.
C	Section 2 NOTE 3; item 9.3.2 d) g).
D	Altered items 6.1 and 12. Removed item 6.5
E	Removed item 5.3
F	Removed items (2 - References), 5.3, 6.3.3, 6.3.5, 8.1.1, 8.1.1.1, 8.1.3, e 8.1.4, 9.2 t) e 9.3.2 c) d) e) f) g) / Altered items 1.1, 1.2, NOTA 1, 4.2.2 d) e) f), 5.2, 7.2, 7.4, 8.1, 8.2.2, 9.4.2 a) b) c), 10, 11.1 e 12.1 a) b), NOTE 14 / Included items NOTE 5, 2.5 e 4.2.2 g) h).
G	Included items 4.2.1 f), NOTE 8, 6.1.2, 6.2.3, 8.1.2, 8.2.1 j), 13, 14 e 15/ Altered items 4.2.1 h), NOTA 4, NOTE 5, 4.2.2.a), b) e c), 4.2.4 a), NOTE 11, 5, 6.1.1, 7.1, 7.4 ff), 8.1, 8.2.1, 9.3.1 a), b), c), g), k) e t), 9.3.2 c) e 10 l), s), NOTE 13 / Excluded item 9.2 and renumbered the following items.

	REV. 0	REV. A	REV. B	REV. C	REV. D	REV. E	REV. F	REV. G	REV. H
DATE	18/02/2019	29/03/2019	25/04/2019	29/05/2019	07/08/19	11/11/2019	08/11/2021	04/06/25	
PROJECT	SBS/PROJINV/QB/ DPU	SBS/PROJINV/QB/ DPU	DPU	DPU	DPU	DPU	GQS	GQ	
EXECUTION	EM1E	EM1E/CSM5/CQJ4	CSM5	RNIU	CSM5	RNIU	ES29/MF3G/ MFA4	UPKG / ES50	
VERIFICATION	CSM5/RNIU/CQJ4	MFJ8/RNIU/MF3G/ EIBH	RNIU	A50O	RNIU	A50O	BEJZ	UPKG	
APPROVAL	UTJ6	UTJ6	UTJ6	UTJ6	UTJ6	UTJ6	TW9O	TW9O	

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1. PURPOSE

1.1. This document establishes the minimum quality requirements that shall be considered and observed by the Supplier during the entire Subsea Umbilical System manufacturing process and shall be considered as a complementary document to I-ET-0000.00-0000-972-1AL-001 – Quality of Goods General Requirement.

1.2. This Quality Requirement applies to the following families of subsea Umbilical Systems:

a) Subsea Umbilical TPU (Thermoplastic Hose Umbilical) and Electro/Optical [ESTR];
b) Subsea Umbilical STU (Steel Tube Umbilical) [ESTR].

NOTE 1: ISO 13628-5 presents the definition of Umbilical System.

NOTE 2: In case of conflict with I-ET-0000.00-0000-972-1AL-001, this Complementary Requirement shall prevail.

2. REFERENCES

- I-ET-0000.00-0000-972-1AL-001 – Quality of Goods General Requirements - GQR;
- ASME Section V – Nondestructive examination;
- ASME Section IX – Welding qualification;
- ISO 13628-5 – Petroleum and natural gas industries – Design and operation of subsea production system. Subsea Umbilicals;
- PETROBRAS Standard N-2941 - Personal Competencies for Inspection Activities;
- ABNT NBR 16278 - Manufacturing Inspection - Qualification and Certification of Personnel for the Oil and Gas Sector.

NOTE 3: The documents applicable to the project are not limited to those listed in this Complementary Quality Requirement. All technical documents related to the contract shall be observed and fulfilled.

NOTE 4: The edition/revision of the documents applicable to the PROJECT shall be that defined in the contractual documentation, if not specified, the current edition/revision on the date of bid of the contract applies.

3. DEFINITIONS, TERMINOLOGIES AND ACRONYMS

3.1. The definitions and acronyms adopted in this document are in accordance with I-ET-0000.00-0000-972-1AL-001and ABNT NBR 16278.

3.2. When preparing the Inspection and Test Plan (ITP), the acronyms defined in I-ET-0000.00-0000-972-1AL-001 shall be used.

NOTE 5: The definition for *"Functional Component"* presented in the ISO 13628-5 is equivalent to *"Critical Component"* used in this Complementary Requirement.

4. MINIMUM MANUFACTURING INSPECTION ACTIVITIES

4.1. In addition to I-ET-0000.00-0000-972-1AL-001, the following activities shall be performed and recorded by the Responsible for the Manufacturing Inspection (RMI) for each Umbilical System.

NOTE 6: In order to ensure the compliance of the material with the contractual requirements, other activities, besides those listed below, can be monitored by RMI and shall be recorded.

4.2. Inspections during manufacturing for all Umbilical and their critical components, as detailed in the following items.

4.2.1. The Responsible for the Manufacturing Inspection shall consider, at least, the following steps as Hold Points at Supplier, which shall be set out in the ITP:

a) Tests and assays of tubes (when applicable);
b) Whole welding process of tubes and fittings for the first section of each unifilar (when applicable);
c) Verification/identification of Umbilical marking;
d) Verification of continuity and identification of hoses and tubes;
e) Factory acceptance tests - FAT;
f) Factory acceptance tests with assembled connectors;
g) Checking the flushing process in hoses and tubes;
h) Final visual inspection of assembled terminals/connectors and key assembly points such as weld quality between the cable and solder cups of the penetrator, crimping quality (position, finish, and gap between crimp and cable insulation), positioning of sleeves, and additional items;
i) Assembly of quick couplings and final filling of hydraulic hoses;
j) Final inspection of ancillary equipment;
k) Final Inspection of Umbilical Assembly and Ancillary equipment;
l) Conditioning and final mooring of the Umbilical and ancillary equipment;
m) Verification of manufacturing technical documentation book (Umbilical and ancillary equipment data book).

4.2.2. The Responsible for the Manufacturing Inspection shall consider, at least, the following steps as Document Review, which shall be set out in the ITP:

a) Records of tests and trials of hoses;
b) Records of tests and trials of electric/power cables;
c) Records of tests and trials of optical fiber cables;
d) Review of all certificates of raw materials used in the manufacture of Umbilical and its critical components;

NOTE 7: Special attention shall be taken regarding the expiration date of the polymers.

e) Review and approval of all manufacturing technical documentation as defined in ITP (certificates, registrations, reports, etc.);
f) Verification/approval of the treatment contained in the nonconformities issued by the Supplier;
g) Review of the Umbilical System technical documentation;
h) e) Verification of the qualification approval for the Umbilical System structure before issuing the CLM (MRN). In cases where there are pending issues, when the structure is not qualified, the supplier shall obtain Petrobras authorization to release the material.

4.2.3. The Responsible for the Manufacturing Inspection shall consider, at least, the following steps as Monitoring Points at Supplier, 2 times a week, which shall be set out in the ITP:

a) Manufacturing process of thermoplastic and resistant to collapse hoses;
b) Welding process of tubes and fittings;
c) Cleaning process of hoses and tubes before Umbilical lay-up;
d) Process of lay-up the components;
e) Nondestructive examinations;
f) Intermediate processes after lay-up;
g) Armouring processes;
h) Extrusion processes;
i) Process for preparation of terminations (pressing/crimping/welding of terminals/connectors);
j) Other inspection and testing activities required in the contractual documentation shall be included in the ITP. The participation of the Responsible for the Manufacturing Inspection in these activities shall be defined when the ITP is analyzed and approved.

NOTE 8: The preparation and assembly stage of the connectors shall be monitored at least once a quarter by the connector manufacturer.

4.2.4. The Responsible for the Manufacturing Inspection shall consider, at least, the following steps as Hold Points at Sub-supplier, which shall be set out in the ITP:

a) Tests for Subsea Fasteners, Armour Pot, Bend Stiffener, Hang off e API Adapter Flange;
b) Visual inspection and final dimensional check of Subsea Fasteners, Armour Pot, Bend Stiffener, Hang off, API Adapter Flange and Pull-in kit;
c) Verification of manufacturing technical documentation book (data book of hoses, cables and tubes).

NOTE 9: The steps defined previously may be performed at the Supplier's facility, if they could be able to carry out all the verifications/trials/tests foreseen.

5. MANUFACTURING INSPECTORS

5.1. The manufacturing inspector of RMI shall comply with N-2941, modality IF-TF or equivalent abroad, to act directly in the inspection of manufacturing and assembly activities of the Umbilical. Additionally, for the inspection of ancillary equipment, certifications in modalities IF-PP, IF-CT and IF-AT or equivalent abroad can be used, according to the characteristics of the object to be inspected.

5.2. The responsible for manufacturing inspection (RMI) of manufacturing facility that is exempt to hire an Accredited Inspection Body (AIB) can conduct inspections at sub suppliers. If the supplier chooses to carry out the manufacturing inspection at sub suppliers through an inspection company, it shall comply with the AIB requirements established by the GQR.

6. INSPECTION PLANNING

6.1. PRE INSPECTION MEETING - PIM

In addition to the item in I-ET-0000.00-0000-972-1AL-001that refers to the PIM, it shall be considered:

6.1.1. Presentation/confirmation by the Supplier regarding the qualification of the Umbilical structures and their components, with approval by the Classification Society or;

6.1.2. Schedule for the qualification of the structures of Umbilicals and their components.

NOTE 10: This meeting can include more than one Purchase Order (PC), as long as they have the same contractual technical designs/structures, requirements and specifications.

NOTE 11: If a new purchase order refers to structures, requirements and specifications that have already been evaluated and discussed in past PIM (previously held and related to the same contract), the same RMI and the same manufacture site, it is at the Supplier's discretion to hold a new PIM. If so, Supplier shall document the equivalence of the referred Purchase Order with the definitions discussed and validated in previous PIM, evidencing the acknowledgment of the RMI.

6.2. PLANNING OF INSPECTION EVENTS AT SUPPLIER'S FACILITIES

6.2.1. In addition to I-ET-0000.00-0000-972-1AL-001, the Supplier shall prepare, prior to start of manufacturing, a manufacturing plan from placing the purchase order up to its delivery. This planning shall be focused on the inspection and tests pointed out in the ITP of Umbilical and its Ancillary equipment.

6.2.2. This planning shall be submitted for the acknowledgement and comments of the RMI prior to start manufacturing, also including the inspection activities at Sub-suppliers.

6.2.3. When requested by Petrobras, the monthly schedule of inspection and testing activities shall be provided.

6.3. PLANNING AND INSPECTION EVENTS AT SUB-SUPPLIER'S FACILITIES

6.3.1. The Sub-suppliers of materials, components and consumables for the manufacture of the equipment shall be duly approved considering the supplier evaluation methodology, according to its Quality Management System.

6.3.2. The Supplier shall select and evaluate its Sub-suppliers in accordance with the requirements of ABNT NBR ISO 9001, of the Quality of Goods General Requirement, of this complementary requirement and other contractual documents, where and when applicable, to ensure compliance with all requirements and criteria established for the supply, with periodic revaluations methodology, aiming the continuous improvement in this process.

6.3.3. The Supplier shall establish and reproduce in its Sub-contractors considered critical, the following good practices: PIM, ITP preparation, nonconformity treatment, quality indicator development.

7. INSPECTION AND TEST PLAN

7.1. The ITP shall follow the requirements of I-ET-0000.00-0000-972-1AL-001 and this Complementary Requirement. In addition, the Supplier shall submit to the Responsible for the Manufacturing Inspection, prior to the start of manufacturing, an ITP for each Umbilical structure, main components and ancillary equipment to be supplied, ensuring the compatibility of the materials with the project requirements, procedures and contractual documentation.

7.2. In order to ensure the conformity of the material in accordance with the contractual conditions, the Responsible for the Manufacturing Inspection shall define, upon the approval of the ITP, for each Purchase Order, the extent of their participation in the inspections and tests to be carried out at the Supplier's facilities (such as, for instance,

HP, WP, RD or MP), covering the inspection activities set out in I-ET-0000.00-0000-972-1AL-001, in this Complementary Requirement and other contractual documents.

7.3. The Sub-suppliers' ITP shall be in accordance with the technical requirements and acceptance criteria set out in the project and in the contractual documentation, including, along the manufacturing process, the level of participation of the Supplier inspection and the Responsible for the Manufacturing Inspection.

7.4. In compliance with and complementing ISO 13628-5 standard, the specifications and the contractual requirements, the activities listed below shall be included in the ITP of the Umbilical and its critical components, including their respective records, where and when applicable, depending on the structure, specifications and contractual requirements:

a) Review of certificates and traceability of raw material;
b) Verification of steps in the process of hoses manufacturing;
c) Verification of steps in the process of tubes manufacturing;
d) Verification of steps in the process of electric/power cables manufacturing;
e) Verification of steps in the process of optical fiber cables manufacturing;
f) Verification of steps in the process of ancillary equipment and components manufacturing;
g) Verification of the extrusion process on hoses/tubes;
h) Verification of the extrusion process on electric/power cables and optical fibers;
i) Assays/tests on hoses prior to Umbilical lay-up;
j) Assays/tests on tubes prior to Umbilical lay-up;
k) Assays/tests on electrical cables/power prior to Umbilical lay-up;
l) Assays/tests on fiber optic cables prior to Umbilical lay-up;
m) Verification of the cleaning process of hoses and tubes prior to Umbilical lay-up;
n) Verification of welding process of tubes;
o) Verification of lay-up process of components;
p) Verification of nondestructive testing;
q) Verifications of the extrusion process of the cover over the lay-up;
r) Verification of the internal armour/reinforcement process;
s) Verification of the extrusion process on internal armour/reinforcement;
t) Verification of the process of the tensile armour;
u) Verification of the extrusion process over tensile armour;
v) Verification/identification of marking and final dimensional check of Umbilical;
w) Verification in the process of preparing the terminations (crimping/swaging/welding of terminals/connectors);
x) Verification of continuity and identification of hoses and tubes;
y) Factory acceptance test - FAT;
z) Final check of Umbilical;
aa) Verification of flushing process in hoses and tubes;
bb) Visual inspection of terminals/connectors;
cc) Assembly of quick couplings and final filling of hydraulic hoses;

dd) Final inspection of ancillary equipment;
ee) Final inspection of assembly of ancillary equipment;
ff) Preservation, packaging and final inspection of the Umbilical and ancillary equipment;
gg) Review of the manufacturing technical documentation (Umbilical data book and ancillary equipment).

8. PERSONNEL AND PROCEDURES QUALIFICATION

8.1. PERSONNEL QUALIFICATION

For inspections of welding, nondestructive, dimensional control and painting, the Supplier/Sub-Supplier shall comply with I-ET-0000.00-0000-972-1AL-001, with the additional requirements below:

8.1.1. Dimensional Control Inspector
Unless otherwise specified, professionals without certification can be used; however, these shall have training and proven qualification in metrology to carry out the dimensional inspections during the Umbilical System manufacturing process.

8.1.2. The assemblers and inspectors of electrical connectors and terminals shall participate annually in training and qualification sessions offered by the manufacturers of these accessories, focusing on assembly and inspection procedures.

8.2. PROCEDURES QUALIFICATION

8.2.1. The following procedures shall be qualified and approved by certified professionals in accordance with N-2941 (when applicable) before the beginning of the respective activity:

a) Radiography;
b) Ultrasonic;
c) Dye penetrating;
d) Magnetic particles;
e) Visual;
f) Hardness;
g) Welding;
h) Pickling and Passivation;
i) Repair;
j) Petrobras standard painting.

NOTE 12: All repair procedures permitted by the contract specifications shall be qualified according to the characteristics of the defects observed and shall also be

analyzed and validated by the Responsible for the Manufacturing Inspection at the time of inspection.

8.2.2. Other Required Procedures shall be qualified according to the contractual premises and/or technical requirements of the project. These procedures shall be reviewed by the RMI and shall comply with the contract.

9. EXECUTION OF MANUFACTURING INSPECTION

The following items shall be considered in addition to those defined in I-ET-0000.00-0000-972-1AL-001:

9.1. MINIMUM ACTIVITIES TO START MANUFACTURING

To start manufacturing, the following conditions shall be met:

a) Unifilar e Cross Section approved by the Supplier's engineering department according to the contract;
b) ITP approval by RMI;
c) Holding PIM.

9.2. WELDING PROCESS

9.2.1. The welding process of the metallic tubes and the armour/reinforcement shall follow the conditions defined in the standards ISO, ASME, PETROBRAS technical specifications and the welding specifications of the Supplier.

9.2.2. The following welding documentation shall be available for verification by the Responsible for the Manufacturing Inspection, when applicable or required in the project, prior to performing the inspection and test activity according to ITP:

a) Certification, qualification and training of welding inspectors for TPU Umbilical;
b) Certification of welding inspectors for STU Umbilical;

9.3. INSPECTION AND TESTING ACTIVITIES

9.3.1. During the manufacturing process, the following documents shall be available for verification before carrying out the respective inspection and test activity, according to the ITP:

a) Certification of NDT inspectors;
b) Certification of paint/coating inspectors;
c) Certification of welding inspectors;
d) Certification or record of training/qualification of dimensional control inspectors;
e) Qualification and adequacy of the inspection procedure by nondestructive testing by level 3 inspector in the relevant technique;

f) Qualification and adequacy of the painting procedure to the project by paint inspector;
g) Dimensional control procedure approved by the product engineering area of the Supplier or by a dimensional control inspector;
h) Procedure for identification, transfer and control of traceability of materials;
i) Nonconformity report control procedure (NCR) as defined in the Supplier's Quality Management System;
j) Drawings release for manufacturing;
k) Welding procedure qualified by certified inspector level 2;
l) PMI procedure (where applicable);
m) Factory acceptance testing (FAT) procedure;
n) Procedure for assay/testing of component;
o) Procedure for assembly of terminations/connectors and ancillary equipment;
p) Procedure for application of internal and/or external coating;
q) Procedure for pickling and passivation (where applicable);
r) Procedure for cleaning and preservation the Umbilical;
s) Repair procedure (where applicable);
t) Certificate of calibration of the instruments to be used in the inspection and in the factory tests;
u) Procedures for packing, mooring, shipping, transport and storage;
v) Indication of the devices/instruments, including the required accuracy, to obtain the quality, during verification of critical dimensions, function and performance tests.

9.3.2. Hydrostatic, Intermediate and Factory Acceptance Tests (FAT)

a) Intermediate Tests on Hoses, Electric Cables, Optical Fiber Cables, Power Cables:
Components shall be tested in accordance with ISO 13628-5 and additional requirements set in the contractual documentation.
b) Hydrostatic Testing in Metallic Tubes:
Metallic tubes shall be tested in accordance with ISO 13628-5 and additional requirements set in the contractual documentation.
c) Factory Acceptance Test (FAT) of Umbilical:
Upon completion of Umbilical fabrication, hoses/tubes shall be subject to the factory acceptance tests in accordance with ISO 13628-5 and additional requirements set in the contractual documentation.
The high voltage DC test shall be performed, as required by the standard, after the completion of the Umbilical, including the assembled electrical connectors.

10. QUALITY RECORDS – DATA BOOK

The following quality records and inspections shall be issued and made available by the Supplier and analyzed by the RIF as required in the Inspection and Test Plan (ITP) and other contractual documents:

a) Certificate of raw materials or components;
b) Incoming report of materials and equipment, with guarantee of traceability of materials/equipment;
c) Nondestructive testing report provided according to ITP and drawings;
d) Nonconformities Reports of containing the respective treatment by the Supplier;
e) Technical queries between PETROBRAS and the Supplier;
f) Report of dimensional control;
g) Report of destructive tests;
h) Welding reports;
i) Certificate of welding consumables (when applicable);
j) Record of the stress relief heat treatment (when applicable);
k) Records of test/testing of components (hoses, electric cables, power cables, fiber optic cables and metal tubes);
l) Photographic report of the assembly stages of terminations/connectors and ancillary equipment;
m) Umbilical Factory Acceptance Test Report;
n) Inspection report of coating/paint application, detailing the surface preparation, each layer applied, as well as results on the thickness and adherence and mapping of the touched up regions;
o) Report of repair of armour and sheath;
p) Final report of identification and length;
q) Flushing report;
r) Certificate of conformity.
s) Photographic record of the tying, preservation and packaging.

NOTE 13: If the supplier has a system for verifying the traceability and validity of the calibration of the instruments used, the calibration certificates used during the quality control process do not need to be attached to the data book.

NOTE 14: Other examinations, assays, inspections and tests required in the contractual documentation shall be included in this list of Quality Records.

11. HANDLING, MOORING, PRESERVATION, STORAGE AND SHIPPING

11.1. The handling, mooring, preservation, storage and shipping requirements shall meet the ISO 13628-5 and additional requirements set out in the contractual documentation, throughout all stages of the process execution, storage and transportation of the product.

11.2. When applicable, stainless steel materials, nickel alloys or titanium alloys shall be stored, handled and processed according to the Supplier’s specific procedures for each type of material in order to avoid the risk of contamination.

12. MANUFACTURING QUALITY AUDIT

12.1. Periodic audits may be carried out by PETROBRAS during the manufacturing process and the Supplier shall consider, at least, the following items in addition to those defined in I-ET-0000.00-0000-972-1AL-001:

a) Homologation or qualification of the Umbilical System;
b) Certification of inspectors and qualification/training evidences;
c) Analysis and approval of ITP;
d) Holding of PIM;
e) Qualification of Sub-supplier;
f) Approval/qualification of manufacturing and inspection procedures;
g) Identification and traceability control;
h) Methodology of control and maintenance of standards and instruments of measurement and control;
i) Evidence of compliance with all the technical requirements defined in the contractual standards and technical specifications;
j) Verification of the manufacturing stages defined in the ITP, performance of the Quality Management System of the Supplier and the Responsible for the Manufacturing Inspection;
k) Evidence of assembly and testing;
l) Evidence of preservation, mooring and packaging;
m) Evidence of treatment of nonconformities;
n) Evidence of quality records and action plans.

NOTE 15: It shall also be verified in audits the inspection and testing activities performed at the Sub-suppliers throughout the manufacturing process of the Umbilical System (according to the ITP).

13. TREATMENT OF NON-CONFORMITIES

13.1. Additionally, to what is defined in ET-0000.00-0000-972-1AL-001, the supplier shall send to the Quality Goods department, within 5 business days, the non-conformities classified as medium, mainly those related to the final acceptance tests of manufacturing.

13.2. The supplier shall maintain a control of all non-conformities generated during manufacturing.

13.3. The supplier shall present monthly to the Quality Management of PETROBRAS a control of manufacturing non-conformities classified as medium, severe, or high. The control shall include the necessary updates, investigation timelines, and an executive summary with the root cause analysis, corrective actions, photos, effectiveness, and

scope of the actions. This control shall include traceability of the umbilical, purchase orders, and contracts.

14. QUALITY MONITORING

14.1. Quality meetings shall be held between PETROBRAS and the Supplier with the objective of monitoring the progress of deliveries at all manufacturing facilities that produce equipment with Q-type inspection.

14.2. The meetings should follow a minimum agenda, as outlined below:

a) Presentation of the scope of supply by manufacturing facility;
b) Pending project qualification issues;
c) Quality management and performance evaluation of the main sub suppliers;
d) Main manufacturing non-conformities in the period, segregated by process and their respective mitigation actions;
e) Non-conformities identified after delivery and COD, mainly those that had developments related to equipment design revisions and/or adjustments in manufacturing processes;
f) Monitoring of audit non-conformities;
g) Schedule of planned tests for the next 60 days for critical equipment;
h) Clarification of doubts regarding quality requirements and other contractual technical requirements.

14.3. The frequency and agenda of the meetings should be adjusted throughout the supply process, according to the needs of PETROBRAS and the Supplier.

14.4. PETROBRAS can conduct, at any time, regardless of the events established in the ITPs, quality monitoring at the suppliers' and sub suppliers' facilities with the objective of verifying the compliance of manufacturing, inspection, and testing processes with contractual requirements and internal procedures of the supplier and its sub suppliers.

14.5. During the manufacturing monitoring, the Supplier shall provide a suitable location for the PETROBRAS team.

14.6. During the manufacturing monitoring, PETROBRAS shall have access to the areas involved in the manufacturing processes, documents, and applicable procedures.

14.7. PETROBRAS can adopt verification lists based on contractual requirements and internal procedures of the supplier.

14.8. The supplier shall make representatives from the manufacturing sectors available during the manufacturing monitoring activities.

14.9. The frequency and/or extent of the manufacturing monitoring activity will be defined by PETROBRAS, considering, among other aspects, the criticality of the item for operation, complexity of the manufacturing process, supply portfolio, occurrence of divergencies in delivered equipment, and performance indicators.

14.10. Deviations found during quality monitoring activities shall be recorded and addressed as provided in the supplier's quality management system.

15. DISPENSATION OF HIRING THE AIB

15.1. In addition to what is defined in the GQR, for the supplier to be exempt from hiring AIB at a specific manufacturing facility, the criteria below shall be fully met, including components supplied by sub suppliers:

a) No severe or high non-conformity detected in the audit, as defined in Table 1 of the GQR;
b) No severe or high non-conformity detected in quality monitoring, as defined in Table 1 of the GQR;
c) Not having more than 02 (two) open CODs simultaneously, provided there are no pending issues by PETROBRAS.

15.2. In case of losing the exemption from hiring AIB at the facility where the item is manufactured, the supplier is required to hire the AIB for a minimum period of 12 months or until the divergencies are resolved, whichever is greater.