

ر احداث ردیف تراکم گاز در ایستگاه جمع آوري بینك



شماره پیمان:

053 - 073 - 9184

| PMR FOR CONTROL VALVES | | | | | | | | | | |
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طرح نگهداشت و افزایش تولید 27 مخزن

PMR FOR CONTROL VALVES

نگهداشت و افزایش تولید میدان نفتی بینک

| D01 | MAY. 2023 | IFI | P.Hajisadeghi | M.Fakharian | A.M.Mohseni | |
|------|-----------|-------------------------|---------------|-------------|--------------|-----------------|
| D00 | AUG. 2022 | IFI | P.Hajisadeghi | M.Fakharian | M.Mehrshad | |
| Rev. | Date | Purpose of Issue/Status | Prepared by: | Checked by: | Approved by: | CLIENT Approval |
| | | | | | | |

Class: 3 CLIENT Doc. Number: F0Z-709275

Status:

IDC: Inter-Discipline Check
IFC: Issued For Comment
IFA: Issued For Approval
AFD: Approved For Design
AFC: Approved For Construction
AFP: Approved For Purchase
AFQ: Approved For Quotation
IFI: Issued For Information
AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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REVISION RECORD SHEET

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1.0 INTRODUCTION

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

As a part of the Project, a New Gas Compressor Station (adjacent to existing Binak GCS) shall be constructed to gather of 15 MMSCFD (approx.) associated gases and compress & transfer them to Siahmakan GIS.

GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT: National Iranian South Oilfields Company (NISOC)

PROJECT: Binak Oilfield Development – Surface Facilities; New

Gas Compressor Station

EPD/EPC CONTRACTOR (GC): Petro Iran Development Company (PEDCO)

EPC CONTRACTOR: Joint Venture of : Hirgan Energy – Design & Inspection

(D&I) Companies

VENDOR: The firm or person who will fabricate the equipment or

material.

EXECUTOR: Executor is the party which carries out all or part of

construction and/or commissioning for the project.

THIRD PARTY INSPECTOR (TPI): The firm appointed by EPD/EPC CONTRACTOR (GC)

and approved by CLIENT (in writing) for the inspection

of goods.

SHALL: Is used where a provision is mandatory.

SHOULD: Is used where a provision is advisory only.

WILL: Is normally used in connection with the action by

CLIENT rather than by an EPC/EPD CONTRACTOR,

supplier or VENDOR.

MAY: Is used where a provision is completely discretionary.

2.0 GENERAL

This document presents the item material requisitions for Contractor's use as appropriate.



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This material requisition covers the requirements for the design, manufacturing, testing and supply of Control Valves as listed below. All equipment/devices/items shall conform to this requisition and all specifications which have been mentioned in attachment 1 of this material requisition.

D01

· The vendor's supply shall include:

| No. | Item | Description | Total QTY. |
|-----|---------------|---------------------------|------------|
| 1 | FCV-2101 | Control Valve, Globe Type | 1 |
| 2 | FCV-2102 | Control Valve, Globe Type | 1 |
| 3 | FCV-2111 | Control Valve, Globe Type | 1 |
| 4 | LCV-2114 | Control Valve, Globe Type | 1 |
| 5 | PCV-2123A/B/C | Control Valve, Globe Type | 3 |
| 6 | PCV-2135A/B/C | Control Valve, Globe Type | 3 |
| 7 | PCV-2151 | Control Valve, Globe Type | 1 |
| 8 | PCV-2152 | Control Valve, Globe Type | 1 |
| 9 | PCV-2201 | Control Valve, Globe Type | 1 |
| 10 | PCV-2272 | Control Valve, Globe Type | 1 |
| 11 | PCV-2211 | Control Valve, Globe Type | 1 |

3.0 REFERENCE / ATTACHED DOCUMENTS

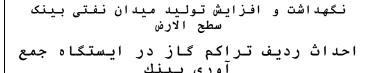
- a. Specified documents in attachment 1 shall be considered as a part of this material Requisition.
- **b.** All codes and standards which have been referenced in above mentioned specs shall be considered.
- **c.** In case of any conflict between the contents of this document or any discrepancy between this document and other project documents or reference standards, this issue must be reported to the CLIENT. The final decision in this situation will be made by CLIENT.
- d. Deviations

Any exceptions/clarifications to codes/standards and specifications listed in attachment 1 must be clearly stated in a separate dedicated section of the proposal in the format submitted in attachment 3.

The proposed deviations/comments list shall include as minimum:

Reference for the involved specification, chapter and paragraph.







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- Technical justification for the non-compliance.
- · Detailed description of the proposed alternative.

If no exceptions or clarifications exist, either for the complete referenced document or an individual paragraph, the supplier shall be considered to be in full compliance with the relevant document.

The supplier may propose materials of equivalent or better quality compared to those indicated in the equipment data sheet. Even these cases shall be duly included/technically supported in the deviations/clarifications list.

4.0 SUBJECT OF THE SUPPLY

The supplier shall supply Control Valves. The scope of supply is detailed at para. 5. The supplier shall include in the supply, all other equipment/devices/items not listed in the following, but necessary for a good design and a safe operation, taking into account process data and installation conditions such as area classification and climatic conditions.

The grade of shop assembly of the equipment/devices/items supplied shall be at maximum extent to facilitate site erection and pre-commissioning activities.

5.0 LIMITS OF SUPPLY

5.1 SCOPE OF SUPPLY

5.1.1 MAIN DESCRIPTION



The scope of supply includes 12 Nos. Control Valves. Main feature are as below:

- · Control Valves, Globe Type. As per mentioned size,
- ACTUATOR
- Positioner
- Air Set
- Painting and coating(<u>if required</u>)(Light green Actuator and white valve body as per Specification For Painting BK-GNRAL-PEDCO-000-PI-SP-0006)

The supplier shall assume overall responsibility for the design, manufacture, assembly, test and performance of all equipment/devices/items supplied as indicated in this requisition. This shall include, but not be limited to:

 Resolve engineering issues relating to equipment/devices/items within the scope of supply.



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- Provide detailed design and documentation of all equipment/devices/items and components within the scope of supply in accordance with attachment 2 of this document.
- Provide all necessary information documents in order to allow the contractor to erect, install and verify the proposed equipment/devices/items.
- Implement a quality assurance plan
- The quality plan applied to the scope of supply shall include:
 - QA organization and procedures that shall be submitted for approval.
 - Plan for HOLD points in the production process proposed to PURCHASER for witness or approval particular activities.
 - Production schedule indicating main quality manufacturing processes, inspection and tests.
 - Qualification of all personnel performing tests to be reviewed by the inspector
 - Supplier shall also provide the description of the following quality activities:
 - Sub suppliers products quality
 - Quality check and identification of the materials and equipment entering in their manufacturing shop.
- · Calibration of test instruments and equipment
- Provide detailed specifications and data sheets.

5.1.2 SPARE PARTS

Following items shall be considered (supplied) and included in the bid documentation:

- Spare parts for commissioning and start-up; a qualified and complete list based on PROJECT SPARE PART SUPPLY PROCEDURE (Doc. No. E&D-QC-SP-1).
- Spare parts for two years operation; a qualified and complete list based on PROJECT SPARE PART SUPPLY PROCEDURE (Doc. No. E&D-QC-SP-1).

D01

- Capital spare parts (as option / if any)
- 5.1.3 OTHER ITEMS

OTHER ITEMS

Name plate

5.2 EXCLUSIONS

No exclusion is applicable.

5.3 BATTERY LIMITS

No battery limit is applicable.



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6.0 INSPECTION AND TESTS

data sheets (if any).

The equipment shall be inspected and tested in accordance with the quality control plan issued by the supplier and approved by the PURCHASER before the award of the order. The QC plan shall at least be according to the PROJECT ITP PROCEDURE (Doc. No. ICE-EID-MI-SP01-Rev01)-and

Presence of an inspector in the manufacturer's factory during construction, inspecting manufacturer's shop and warehouse and construction progress as per the specific time schedule also in final stages of construction, witness of required test, final inspection, static, functional tests, etc. (Inspection Level 2) based on purchase requirements, standards and Project ITP is required.

The supplier shall in any case conduct all the tests required by contractual documents, specifications, codes and standards, manufacturer standard quality system and keep the relevant documentation.

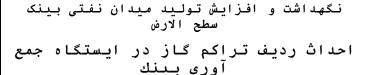
All required manufacturing and function test/inspection also Factory acceptance test /Site acceptance test and Quality Assurance Requirements shall be considered in vendor responsibility as per project specification.

7.0 VENDOR DOCUMENTATION REQUIREMENTS & SCHEDULE

- · Vendor document shall be according to attachment 2 of this document.
- · All documents, preliminary or final, are to be stamped and signed by the supplier.
- Failure in dispatch of the required documents shall cause the supply to be considered as unfulfilled.
- PURCHASER's approval does not relieve vendor, in any way, from his obligation to fulfill the requirements of the purchase order documents.
- All vendor drawings and documents shall be in English language.

All drawings and documents are to be identified as per clause 1 "GENERAL DEFINITION"







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8.0 UNIT RESPONSIBILITY

VENDOR shall be responsible for the design, engineering, co-ordination, supply, delivery, testing, final check-out and satisfactory operation of the equipment/devices/items. The engineering coordination also includes responsibility for handing and expediting drawings.

Also VENDOR shall be responsible for ensuring that all relevant information and documentation is passed on the sub-suppliers.

9.0 GUARANTEE AND WARRANTY

All material and Equipment/Devices/Items in VENDOR's scope of work/supply shall be guaranteed by VENDOR.

The guarantee period shall be eighteen (18) months from the date of delivery or twelve (12) months from the installation date of each equipment/packages at site

VENDOR shall guarantee the performance of supplied items (if any).



VENDOR shall guarantee that the Equipment/Device/Item is suitable for the operating conditions herein specified, and that all materials and components are free from any defects; verifications of all calculations are in VENDOR's responsibility.

VENDOR shall unconditionally guarantee the materials and workmanship of all material and/or services. If, within the guarantee period, any defects occur which are due to faulty material and/or services included in his scope (design, manufacturing, inspection, testing, supply & etc.), VENDOR shall, at his own expense, repair or adjust the condition, or replace the material and/or services to the complete satisfaction of CLIENT's representative. These repairs, replacement or adjustments shall be made only at such time as will be least detrimental to the operation of the CLIENT's business.

VENDOR warrants promptly repairing or replacing the defective parts in the warranty period.

Vendor shall ensure a correct and safe operation of the unit, providing all safety protection Devices.

Vendor shall be responsible for the safe, reliable, continuous functioning of the Equipment/Devices/Items.

VENDOR is fully responsible for the design of package for correct and safe operation based on project requirement during package life time; therefore, VENDOR shall specify any documents/specifications which may be required for design, manufacture and finalizing of Equipment/Devices/Items to avoid any problems during the package operation at site before P.O; otherwise, VENDOR shall be hold responsible for any corresponding deviation from expectations from the Equipment/Devices/Items.



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10.0 DEVIATION

VENDOR's proposal shall be prepared in strict compliance with the requirements set forth in the relevant specifications of tender documents.

VENDOR shall include in his proposal the statement of compliance with the tender documents should VENDOR wish to submit exception to the requirements of tender documents. They shall be submitted for PURCHASER's approval.

11.0 PRICE BREAKDOWN

Breakdown price of following items shall be included in the proposal, as well as total price.

- 1) Material and Fabrication for each Section Separately
- 2) Pre-commissioning & commissioning spare parts (END-QC-SP-1)
- 3) 2 years operational spare parts (END-QC-SP-1)
- 4) Packing & transportation



5) Other fee (if any)



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ATTACHMENT 1

11.1 LIST OF REFERENCE / APPLICABLE DOCUMENTS



| No. | Document No. | Document Title | Rev. | | | | |
|------------|-----------------------------------|--|------|--|--|--|--|
| Instrument | | | | | | | |
| 1. | BK-GCS-PEDCO-120-IN-DC-0002 | Instrument & Control System Design Criteria | D01 | | | | |
| 2. | BK-GNRAL-PEDCO-000-IN-SP- 0001 | Specification for Instrumentation | D04 | | | | |
| 3. | BK-GNRAL-PEDCO-000-IN-SP- 0005 | Specification for Control Valve | D03 | | | | |
| 4. | BK-GCS-PEDCO-120-IN-DG-0002 | Instrument Hook-up Diagram | D02 | | | | |
| 5. | BK-GCS-PEDCO-120-IN-DT-0011 | Data Sheets for Control/Regulator Valves | D01 | | | | |
| | | Process | | | | | |
| 6. | BK-GNRAL-PEDCO-000-PR-DC- 0001 | Process Design Criteria | D02 | | | | |
| 7. | BK-GNRAL-PEDCO-000-PR-DB- 0001 | Process Basis Of Design | D08 | | | | |
| 8. | BK-GCS-PEDCO-120-PR-PI-0001 | Symbol & Legend For PFD and P&ID | D04 | | | | |
| 9. | BK-GCS-PEDCO-120-PR-PI-0002 | P&ID - Gas Compression Inlet Gas Pipeline (Binak) | D06 | | | | |
| 10. | BK-GCS-PEDCO-120-PR-PI-0003 | P&ID - Gas Compression Inlet Gas Pipeline (Golkhari) | D06 | | | | |
| 11. | BK-GCS-PEDCO-120-PR-PI-0004 | P&ID - Slug Catcher System | D06 | | | | |
| 12. | BK-GCS-PEDCO-120-PR-PI-0005 | P&ID - Gas Compression Inlet Knock Out Drum | D06 | | | | |
| 13. | BK-GCS-PEDCO-120-PR-PI-0006 | P&ID - 1st Stage Gas Compression Suction Drums | D06 | | | | |
| 14. | BK-GCS-PEDCO-120-PR-PI-0007 | P&ID - 1st Stage Gas Compression Compressors | D06 | | | | |
| 15. | BK-GCS-PEDCO-120-PR-PI-0008 | P&ID - 1st Stage Gas Compression Air Coolers | D06 | | | | |
| 16. | BK-GCS-PEDCO-120-PR-PI-0009 | P&ID - 2nd Stage Gas Compression Suction Drums | D06 | | | | |
| 17. | BK-GCS-PEDCO-120-PR-PI-0010 | P&ID - 2nd Stage Gas Compression Compressors | D05 | | | | |
| 18. | BK-GCS-PEDCO-120-PR-PI-0011 | P&ID - 2nd Stage Gas Compression Air Coolers | D06 | | | | |
| 19. | BK-GCS-PEDCO-120-PR-PI-0012 | P&ID - 2nd Stage Gas Compression Discharge Drum | D06 | | | | |
| 20. | BK-GCS-PEDCO-120-PR-PI-0013 | P&ID - Gas Compression Dehydration Package | D06 | | | | |
| 21. | BK-GCS-PEDCO-120-PR-PI-0014 | P&ID - Lean Glycol Storage Tank | D06 | | | | |
| 22. | BK-GCS-PEDCO-120-PR-PI-0015 | P&ID - Instrument & Plant Air System | D06 | | | | |
| 23. | BK-GCS-PEDCO-120-PR-PI-0016 | P&ID - Nitrogen Generation System | D06 | | | | |
| 24. | BK-GCS-PEDCO-120-PR-PI-0017 | P&ID - Close Drain System | D06 | | | | |
| 25. | BK-GCS-PEDCO-120-PR-PI-0018 | P&ID - Corrosion Inhibitor Package | D06 | | | | |



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| پروژه | نسخ سريال نوع رشته تسهيلا صادركنن بسته پرو ه کاری پرو | | | | | | | |
| BK | GCS | PEDCO | 120 | IN | MR | 0005 | D01 | L |

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| No. | Document No. | Document Title | Rev. | | | | |
|-----|-----------------------------------|---|------|--|--|--|--|
| 26. | BK-GCS-PEDCO-120-PR-PI-0019 | P&ID - Methanol Injection Package | D06 | | | | |
| 27. | BK-GCS-PEDCO-120-PR-PI-0020 | P&ID - LP Flare System | D06 | | | | |
| 28. | BK-GCS-PEDCO-120-PR-PI-0021 | P&ID - Oily Water Sewer | D05 | | | | |
| 29. | BK-GCS-PEDCO-120-PR-PI-0022 | P&ID - Fuel Gas System | D06 | | | | |
| 30. | BK-GCS-PEDCO-120-PR-PI-0023 | P&ID - Diesel Oil System | D06 | | | | |
| 31. | BK-GCS-PEDCO-120-PR-PI-0024 | P&ID - Potable Water System | D06 | | | | |
| 32. | BK-GCS-PEDCO-120-PR-PI-0025 | P&ID - Glycol Sump Drum | D06 | | | | |
| | | SAFETY | | | | | |
| 33. | BK-GCS-PEDCO-120-SA-PI-0001 | P&ID - Fire Water Network | D04 | | | | |
| | PIPING | | | | | | |
| 34. | BK-GCS-PEDCO-120-PI-SP-0001 | Piping Material Specification | D02 | | | | |
| | | General | | | | | |
| 35. | ICE-EID-MI-SP01-Rev01 | دستورالعمل بازرسی، خرید و ساخت کالا | 01 | | | | |
| 36. | ICE-EID-MI-SP02-Rev01 | دستورالعمل انتخاب سطح بازرسی کالا و تجهیزات | 01 | | | | |
| 37. | E&D-QC-SP-1 | دستورالعمل تامین قطعات یدکی راه اندازی وراهبری دو سالانه | D00 | | | | |
| 38. | BK-GNRAL-PEDCO-000-QC-PR-0002 | Quality Control Plan (QCP) | D01 | | | | |
| 39. | BK-GNRAL-PEDCO-000-QC-PR-0021 | Control of Inspection Measuring and Test Equipment Procedure | D00 | | | | |
| 40. | BK-GNRAL-PEDCO-000-QC-PR- 0022 | Specification For Final Data Book (FDB) Requirements | - | | | | |
| 41. | BK-GNRAL-PEDCO-000-QC-PR- 0045 | Packing, Marking, Transportation Procedure | - | | | | |



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| BK | GCS | PEDCO | 120 | IN | MR | 0005 | D01 |

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ATTACHMENT 2

11.2 <u>VENDOR DOCUMENTS MIN. REQUIREMENT</u>



| | | WITH BID | | AFTER OR | DERING | | AT THE | | |
|-----|---|----------------|--------------------|----------------------|--------------------|----------------|----------------------------|--|--|
| NO. | DESCRIPTION | Q./TYPE (1) | Q./TY PE (1) | DELIVERY DATE (2) | PURPO SE (3) | FINAL ISSUE | FINAL INSPECTION (4) | | |
| | MANAGEMENT | | | | | | | | |
| 1 | Vendor Document Index and Schedule (See attachment 2) | 4N | (5) | 2W | А | (5) | Х | | |
| 2 | Organization Brief | 4N | (5) | 2W | I | (5) | | | |
| 3 | Schedule Level 1, 2, 3 & 4 showing Engineering, Procurement, Fabrication, Inspection, Testing, and Delivery Plan. | 4N | (5) | 3W | А | (5) | х | | |
| 4 | Physically Progress Report (Every 2 Weeks)) | | (5) | 2W | I | (5) | | | |
| 5 | Project Organization Chart | 4N | (5) | 2W | I | (5) | Х | | |
| 6 | Reference List | 4N | (5) | 2W | I | (5) | | | |
| 7 | Vendor Catalogue | 4N | (5) | 2W | I | (5) | Х | | |
| | HSE | | | | | | | | |
| 8 | HSE Procedure | | (5) | 4W | А | (5) | X | | |
| | EN | GINEERIN | G | | | | | | |
| 9 | Specifications/Data Sheets (Completed) | | (5) | 4W | А | (5) | Х | | |
| 10 | Dimensional Outlines | 4N | (5) | 4W | А | (5) | Х | | |
| 11 | Mounting Details | | (5) | 4W | А | (5) | Х | | |
| 12 | Engineering Design and Documentation, Sizing Calculation, Noise Calculation | 4N | (5) | 4W | А | (5) | Х | | |
| 13 | Schematic Wiring and Tubing Diagram | 4N | (5) | 4W | А | (5) | Х | | |
| 14 | Electric Power & Utility Consumption List | | (5) | 4W | А | (5) | Х | | |
| 15 | General Arrangement | 4N | (5) | 4W | Α | (5) | Х | | |
| 16 | Detailed Dimensions of Cut- Outs | | (5) | 4W | А | (5) | Х | | |



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| | | WITH BID | | AFTER OR | DERING | | AT THE |
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| NO. | DESCRIPTION | Q./TYPE (1) | Q./TY PE (1) | DELIVERY DATE (2) | PURPO SE (3) | FINAL ISSUE | FINAL INSPECTION (4) |
| 17 | Parts/Material List | 4N | (5) | 4W | Α | (5) | Х |
| 18 | Technical Description and Relevant Catalogues | 4N | (5) | 4W | Α | (5) | Х |
| 19 | List of Deviations from the Specification and Data Sheets | 4N | (5) | 4W | А | (5) | |
| | PRO | CUREMEN | NT | | | | |
| 20 | List of Sub-Vendors (table giving: part of equipment, tag no., sub-vendor reference)(5.1.3) (if any) | 4N | (5) | 4W | А | (5) | |
| 21 | Unpriced copy of sub-orders | 4N | (5) | 4W | 1 | - | |
| 22 | Packing Spec. / Shipping Schedule | 4N | (5) | 4W | I | - | |
| 23 | Weight List/ Shipping List | 4N | (5) | 4W | I | (5) | |
| 24 | Mechanical & Performance Guarantees | 4N | (5) | 4W | I | - | |
| | QUALITY, MAN | UFACTUR | ING, TE | STING | | | |
| 25 | Quality Assurance Manual /Quality Management System Certificate (according to latest rev. of ISO) | | (5) | 3W | А | (5) | |
| 26 | Preliminary Project Schedule | | (5) | 4W | I | - | |
| 27 | Weld and NDT Map (if any) | | (5) | 4W | I | (5) | Х |
| 28 | Surface Preparation and Painting Procedures | | (5) | 4W | 1 | (5) | Х |
| 29 | Welding Procedure Specification (including repair procedures). (if any) | | (5) | 4W | I | (5) | X |
| 30 | Welder Qualification Procedure (if any) | | (5) | 4W | I | (5) | Х |
| 31 | Fabrication Degree | | (5) | 4W | I | (5) | Х |
| 32 | Hydrostatic/Pneumatic Test Procedure | | (5) | 4W | I | (5) | Х |
| 33 | Quality Control Plan | | (5) | 4W | I | (5) | Х |
| 34 | Manufacturing, Test & Inspection Procedures | 4N | (5) | 4W | Α | (5) | Х |
| 35 | Performance & Functional Test Procedure | | (5) | 4W | A | (5) | Х |
| 36 | Non-Destructive Testing/Examination Procedures | | (5) | 4W | A | (5) | Х |
| 37 | Factory Acceptance Test (FAT) Procedure | | (5) | 4W | Α | (5) | Х |



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| | | WITH BID | | AFTER OR | DERING | | AT THE | | | |
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| NO. | DESCRIPTION | Q./TYPE (1) | Q./TY PE (1) | DELIVERY DATE (2) | PURPO SE (3) | FINAL ISSUE | FINAL INSPECTION (4) | | | |
| | RECORDS, REPORTS & CERTIFICATES | | | | | | | | | |
| 38 | Material Conformity Certificate | | (5) | 4W | I | (5) | Х | | | |
| 39 | Testing Authority Approval Certificate (if any) | | (5) | 4W | I | (5) | X | | | |
| 40 | Hazardous Area Certificates. | | (5) | 4W | I | (5) | Х | | | |
| 41 | Ingress Protection Certificate | | (5) | 4W | - 1 | (5) | Х | | | |
| 42 | Conformity Certificates (subvendor/equipment) | | (5) | 4W | I | (5) | Х | | | |
| 43 | Material Certificates Identification Diagram. (cross-reference material location; certificates for critical components) | | (5) | 4W | I | (5) | Х | | | |
| 44 | Welding Procedure Qualification Record. (if any) | | (5) | 4W | I | (5) | | | | |
| 45 | Welding Inspection Reports | | (5) | 4W | 1 | (5) | | | | |
| 46 | Welder Qualification Records. (if any) | | (5) | 4W | I | (5) | | | | |
| 47 | NDT Operator Qualifications | | (5) | 4W | I | (5) | Х | | | |
| 48 | Detailed NDT Reports | | (5) | 4W | Α | (5) | | | | |
| 49 | Weld/ NDT Identification Diagram. (Cross-reference weld locations, WPS, welders, NDT reports). (if any) | | (5) | 4W | А | (5) | Х | | | |
| 50 | Hardness Test Reports | | (5) | 4W | Α | (5) | Х | | | |
| 51 | PWHT Charts & Reports, including calibration records of recorders (for each heat treatment) | | (5) | 4W | I | (5) | Х | | | |
| 52 | Pressure Test Reports / Certificates | | (5) | 4W | Α | (5) | X | | | |
| 53 | FAT Test Report / Certificates | | (5) | 4W | А | (5) | | | | |
| 54 | Performance Test Report / Certificates | | (5) | 4W | Α | (5) | Х | | | |
| 55 | Material Test Certificates | | (5) | 4W | I | (5) | Х | | | |
| 56 | Calibration Curves of Control Equipment | | (5) | 4W | I | (5) | Х | | | |
| 57 | Calibration Test Certificates | | (5) | 4W | I | (5) | Х | | | |
| 58 | Surface Preparation & Coating Reports | | (5) | 4W | А | (5) | | | | |
| 59 | Hydrostatic / Pneumatic Testing Certificates | | (5) | 4W | I | (5) | Х | | | |



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| NO. | DESCRIPTION | Q./TYPE (1) | Q./TY PE (1) | DELIVERY DATE (2) | PURPO SE (3) | FINAL ISSUE | FINAL INSPECTION (4) |
| 60 | Welding Consumable Certificate(if any) | | (5) | 4W | ı | (5) | Х |
| 61 | Test & Inspection Reports | | (5) | 4W | Α | (5) | |
| 62 | Rust Prevention Report | | (5) | 4W | Α | (5) | |
| 63 | Non-Conformities Report | | (5) | 4W | Α | (5) | |
| 64 | Letter of Conformity | | (5) | 4W | Α | (5) | |
| 65 | Monthly Progress Report | | (5) | 4W | Α | (5) | |
| | INS | TALLATIO | N | | | | |
| 66 | Sub-Assembly Documentation | | (5) | 4W | Α | (5) | |
| 67 | Sub-Assembly Drawings | | (5) | 4W | Α | (5) | |
| 68 | Erection/Installation Manual (if required) | | (5) | 4W | Α | (5) | |
| 69 | Name Plate Documents | 4N | (5) | 4W | Α | (5) | |
| 70 | Handling, Transportation & Storage Instructions | 4N | (5) | 4W | A | (5) | |
| 71 | Unpacking & Inspection Instructions | | (5) | 4W | Α | (5) | |
| 72 | Preliminary Packing List | | (5) | 4W | Α | (5) | |
| 73 | Packing List | | (5) | 4W | Α | (5) | |
| | OPERATIO | N & MAINT | ENANC | E | | | |
| 74 | Operating Instructions | | (5) | 4W | Α | (5) | |
| 75 | Maintenance Instructions | | (5) | 4W | Α | (5) | |
| 76 | Commissioning & Start-up Manual | | (5) | 4W | Α | (5) | |
| 77 | List of Spare Parts Commissioning & Start-up | 4N | (5) | 4W | Α | (5) | |
| 78 | List of Spare Parts 2 Years Operation | 4N | (5) | 4W | Α | (5) | |
| 79 | List of Special Tools | 4N | (5) | 4W | Α | (5) | |
| 80 | Lube Oil Schedule | | (5) | 4W | Α | (5) | |
| 81 | Software Manual (incl. Troubleshooting) | | (5) | 4W | Α | (5) | |
| 82 | Consumables List | | (5) | 4W | Α | (5) | |
| 83 | Function Test Procedure | | (5) | 4W | Α | (5) | Х |



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| | | WITH BID | AFTER ORDERING | | | | AT THE FINAL | |
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| NO. | DESCRIPTION | Q./TYPE (1) | Q./TY PE (1) | DELIVERY DATE (2) | PURPO SE (3) | FINAL ISSUE | INSPECTION (4) | |
| | OTHERS | | | | | | | |
| 84 | Vendor Final Book | | (5) | 4W | А | (5) | Х | |
| 85 | All others documents (if required) will be listed in the order | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTES:

- *** The electronic file (Native/PDF) and Hardcopy version shall be provided in all stages by vendor.
- (1) Q : QUANTITY ; TYPE : C = COPY, R = REPRODUCIBLE, P = POLYESTER, M = MICROFILM, E = ELECTRONIC, N=NUMBER OF DOCUMENT
- (2) W = CONSECUTIVE CALENDAR WEEK, M = CONSECUTIVE CALENDAR MONTH
- (3) A = FOR APPROVAL I = FOR INFORMATION
- (4) X = DOCUMENTS TO BE SUBMITTED AT THE FINAL INSPECTION
- (5) "6 C+E" COPY OF DOCUMENT.
- (6) MECHANICAL CATALOGUE INCLUDING FINAL DRAWINGS/DOCUMENTS, UNPRICED PURCHASE ORDER & SUB- PURCHASE ORDER, MAINTENANCE DOSSIER ETC.
- (7) ALL DOCUMENTS AND/OR DRAWINGS FOR THIS PROJECT SHALL ALSO BE SUBMITTED IN THE ELECTRONIC FILES BY

USING THE FOLLOWING SOFTWARE.

MS OFFICE WORD 2013 OR UPPER VERSION (ENGLISH) FOR WORD PROCESSING MS OFFICE EXCEL 2013 OR UPPER VERSION (ENGLISH) FOR SPREAD SHEET AUTO CAD 2005 (ENGLISH) FOR DRAWING

(8) IN ORDER TO DESIGN AND MANUFACTURE THE INSTRUMENTS, VENDOR SHALL CONSIDER THE SEISMIC FACTOR.

SUITABLE FOR SEISMIC UBC 97 zone 4, AND THE RESULTS SHALL BE PROVIDED BY VENDOR.



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| BK | GCS | PEDCO | 120 | IN | MR | 0005 | D01 |

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ATTACHMENT 3

Requisition No.:

Description:

11.3 <u>DEVIATIONS / EXCEPTIONS TO JOB SPECIFICATION</u>

| E | Equipment No.: | | | | | | | |
|---|----------------|-----------------------------------|---|-------------------------------|---|--|--|--|
| | Item No. | Description of proposed exception | Recommended revision to job specification | Reason for proposed exception | Effect on base proposal if CONTRACTOR rejects exception | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



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شماره صفحه: 19 از 19

ATTACHMENT 4

11.4 ALTERNATIVES TO JOB SPECIFICATION

| Requisition No.: |
|------------------|
| Description: |

Equipment No.:

| Item No. | Job Specification No. & Paragraph No. | Requirements of Job Specification | Description of Proposed Alternative | Reason for Proposed Alternative |
|-------------|---------------------------------------|--------------------------------------|---|------------------------------------|
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