**EPCM FOR**

**WEST TO EAST PIPELINE PROJECT**

ADNOC Onshore Agreement No.: 4700022466

ADNOC Onshore Project No.: P30312

MATERIAL REQUISITION FOR MOTOR OPERATED VALVES (TRIPLE OFFSET BUTTERFLY TYPE)

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| **A** | **10/06/2024** | **Youssef Hisham** | **Mohamed Mostafa / Mohamed Ali** | **Amr Soliman** | **Issued for Review** |
| **REV.** | **DATE** | **ORIGINATOR** | **REVIEWED** | **APPROVED** | **DESCRIPTION** |
| THIS DOCUMENT IS INTENDED FOR USE BY ADNOC AND ITS EPCM CONTRACTORS, IMPLEMENTATION CONTRACTORS, MANUFACTURERS/SUPPLIERS/VENDORS | | | | | |
| **ORIGINATOR: Engineering For The Petroleum And Process Industries (ENPPI)** | | | | |  |

The table below is a brief summary of the most recent revisions to this document. Details of all revisions are held on document by the issuing department.

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**Table of Contents**

[1. INTRODUCTION 5](#_Toc169084923)

[1.1 General Project Information 5](#_Toc169084924)

[1.2 Project Description 5](#_Toc169084925)

[1.3 Project Scope 6](#_Toc169084926)

[2. DEFINITION & ABBREVIATION 8](#_Toc169084927)

[**2.1** **Definitions** 8](#_Toc169084928)

[**2.2** **Abbreviations** 8](#_Toc169084929)

[**2.3** **Document Precedence** 10](#_Toc169084930)

[3. Document Objective 11](#_Toc169084931)

[4. SCOPE OF SUPPLY & SERVICES 12](#_Toc169084932)

[**4.1** **Scope of Supply Description** 12](#_Toc169084933)

[**4.2** **Scope of Supply** 14](#_Toc169084934)

[**4.3** **Technical Notes** 20](#_Toc169084935)

[**4.4** **Exclusions from Vendor Scope** 20](#_Toc169084936)

[5. GUARANTEES 20](#_Toc169084937)

[**5.1** **Vendor Responsibility** 20](#_Toc169084938)

[**5.2** **Mechanical Guarantee** 21](#_Toc169084939)

[6. PRESERVATION PROCEDURE 22](#_Toc169084940)

[7. APPLICABLE DOCUMENTS AND DRAWINGS 22](#_Toc169084941)

[**7.1** **Project Specific Documents** 22](#_Toc169084942)

[**7.2** **ADNOC Group Engineering Standards (AGES)** 23](#_Toc169084943)

[**7.3** **ADNOC Onshore (COMPANY) Specification (ES) and Amendments** 24](#_Toc169084944)

[**7.4** **International Codes & Standard** 24](#_Toc169084945)

[8. VENDOR DOCUMENT INSTRUCTIONS 27](#_Toc169084946)

[**8.1** **Vendor Document Requirements List (VDRL)** 27](#_Toc169084947)

[**8.2** **VDRL – General Instructions** 30](#_Toc169084948)

[**8.3** **Documents to be submitted with BID** 31](#_Toc169084949)

[**8.4** **Technical Documentation Descriptions** 32](#_Toc169084950)

[9. DEVIATIONS LIST 36](#_Toc169084951)

[10. INSPECTION REQUIREMENTS 37](#_Toc169084952)

[**10.1** **Definitions** 37](#_Toc169084953)

[**10.2** **Criticality Rating & Inspection Class** 37](#_Toc169084954)

[**10.3** **Principal Stages of Inspection and Testing** 37](#_Toc169084955)

[**10.4** **Inspection/Release Requirements** 40](#_Toc169084956)

[11. QUALITY ASSURANCE REQUIREMENTS 43](#_Toc169084957)

[**11.1** **Quality System** 43](#_Toc169084958)

[**11.2** **Release for Manufacturing** 43](#_Toc169084959)

[**11.3** **Non-Conformities and Concessions** 43](#_Toc169084960)

[**11.4** **Codes and Regulations** 44](#_Toc169084961)

[**11.5** **Material Identification** 44](#_Toc169084962)

[**11.6** **Pre-Inspection Meeting (PIM) At Vendor Facility** 44](#_Toc169084963)

[12. MEETINGS 46](#_Toc169084964)

[**12.1** **Technical BID Clarification Meetings** 46](#_Toc169084965)

[**12.2** **KICK-OFF Meeting** 46](#_Toc169084966)

[**12.3** **Attendance to Project Coordination Meetings** 46](#_Toc169084967)

[APPENDIX 1 47](#_Toc169084968)

[APPENDIX 2 50](#_Toc169084969)

[APPENDIX 3 52](#_Toc169084970)

[APPENDIX 4 53](#_Toc169084971)

[APPENDIX 5 54](#_Toc169084972)

[APPENDIX 6 55](#_Toc169084973)

# INTRODUCTION

## General Project Information

Abu Dhabi National Oil Company (ADNOC) is the state-owned Energy Company of Abu Dhabi and operates across the oil & gas value chain ranging from upstream, refining, marketing through to petrochemicals, amongst others. ADNOC intends to build its trading platform at global centres with an initial focus on Fujairah.

A map of land with signs

Description automatically generated

**Figure 1:** **West East Pipeline for Crude Oil**

## Project Description

ADNOC is on a strategic path to expand its trading platform globally, with a primary focus on elevating the Fujairah Terminal's capabilities to become a cornerstone of its trading operations. The initiative to transfer offshore crude oil from the Western to the Eastern region of the UAE via an onshore pipeline underscores ADNOC's commitment to optimizing its export logistics and storage solutions. This ambitious endeavor is embodied in the West to East Pipeline (WEP) Project, which entails the construction of a 48-inch diameter onshore crude oil pipeline. Originating from the Jebel Dhanna (JD) storage facility in the Western Region, the pipeline extends to the Fujairah Main Oil Terminal (MOT) in the Eastern Region, covering a substantial distance and integrating complex engineering solutions to ensure efficiency and safety.

A pivotal component of the WEP Project is the establishment of two new intermediate pumping stations: the Main Pumping Station (MPS) at Habshan and the Intermediate Pumping Station (IPS) at Sweihan. These stations are critical for facilitating advanced pigging and batching operations, ensuring the continuous and controlled flow of crude oil through the pipeline. The pipeline itself is meticulously designed into three main piggable sections, further divided into nine segments, cumulatively spanning approximately 500 kilometers. Notably, a significant segment of the pipeline traverses the challenging terrain of the Fujairah Mountains, showcasing ADNOC's engineering prowess and commitment to overcoming geographical obstacles.

To maintain the pipeline's operational integrity and facilitate maintenance, fifteen Block Valve Stations (BVS) are strategically placed along the main pipeline. These valves play a crucial role in isolating segments of the pipeline as needed, with each station designed for accessibility and protection by being housed in pits.

In a move to enhance operational flexibility and connectivity, ADNOC has initiated the development of an interconnection between the WEP pipeline at the MP-20 station and the existing MP-21 station. This new 48-inch interconnecting piggable pipeline, stretching 1.6 kilometers, is a testament to ADNOC's forward-thinking approach. It bridges the existing MP-21 commingling header and MP-20—acting as a modern substitute for BVS-2—equipped with a pig launcher at MP-21 and a pig receiver at MP-20. This strategic interconnection underscores ADNOC's dedication to creating a resilient and efficient infrastructure that not only meets the current demands but also anticipates future needs, ensuring ADNOC's position as a global leader in the energy sector.

## Project Scope

The West to East Pipeline (WEP) Project, an initiative by ADNOC, is designed to significantly enhance the oil trading infrastructure from the Western to the Eastern region of the UAE, culminating at the Fujairah Main Oil Terminal (MOT). This project is a testament to ADNOC's vision of creating a more flexible, efficient, and globally competitive trading platform. The scope of this project encompasses several key components, each critical to the successful completion and operation of the pipeline:

**Pipeline Construction:** The core of the project involves the construction of a 48-inch diameter onshore crude oil pipeline. This pipeline will extend from the Jebel Dhanna (JD) storage facility in the Western Region to the Fujairah Main Oil Terminal (MOT) in the Eastern Region. The pipeline's design incorporates advanced engineering to ensure safe, efficient transportation of crude oil across approximately 500 kilometers of varied terrain, including the strategic passage through the Fujairah Mountains.

**Intermediate Pumping Stations:** To support the pipeline's operation, two new intermediate pumping stations will be established. The Main Pumping Station (MPS) at Habshan and the Intermediate Pumping Station (IPS) at Sweihan are designed to facilitate pigging and batching operations. These stations are crucial for maintaining the flow and integrity of the crude oil being transported across long distances.

**Pipeline Segmentation and Valve Stations:** The pipeline is divided into three main piggable sections and further segmented into nine distinct parts to optimize maintenance and operational efficiency. To aid in this effort, fifteen Block Valve Stations (BVS) will be strategically located along the pipeline. These stations are essential for isolating portions of the pipeline as needed for maintenance or in response to operational demands. Each BVS will be housed within pits for protection and ease of access.

**Interconnection with Existing Infrastructure:** A significant enhancement to the project includes the design and implementation of an interconnection between the WEP pipeline at the MPS and the existing MP-21 station. This interconnection involves a new 48-inch piggable pipeline segment that spans 1.6 kilometers, creating a direct link between the MP-21 commingling header and MP-20. This feature introduces a layer of operational flexibility and ensures a seamless integration of the new pipeline with existing infrastructure.

**Engineering and Design Innovations:** Throughout the project, a focus on engineering and design innovation will be maintained to address the geographical and technical challenges inherent in such a large-scale infrastructure project. From navigating mountainous terrain to integrating with existing facilities, every aspect of the project is approached with precision and forward-thinking planning.

**Environmental and Safety Considerations:** The project scope also includes a comprehensive approach to environmental protection and safety. Every segment of the pipeline and associated facilities will be designed and constructed with the highest standards of environmental stewardship and operational safety in mind, reflecting ADNOC's commitment to sustainable and responsible energy production.

The WEP Project embodies ADNOC's strategic initiative to enhance its trading capabilities, ensuring energy security, and establishing a more robust and globally integrated oil infrastructure. Through meticulous planning, innovative engineering, and a commitment to environmental and safety standards, the project aims to set new benchmarks in the energy sector.

# DEFINITION & ABBREVIATION

* 1. **Definitions**

|  |  |
| --- | --- |
| COMPANY | ABU DHABI COMPANY FOR ONSHORE PETROLEUM OPERATIONS Ltd. (ADNOC Onshore) |
| EPCM CONTRACTOR | Engineering for the Petroleum and Process Industries (ENPPI) |
| MANUFACTURER / SUPPLIER / VENDOR | The party which manufactures and/or supplies equipment, technical documents / drawings and services to perform the duties specified by COMPANY / EPCM CONTRACTOR. |
| IMPLEMENTATION CONTRACTOR(s) | The party or parties which will carry out construction of surface facilities while being managed by EPCM  CONTRACTOR. |
| PROJECT | Project West East Pipeline (WEP) |
| SUB CONTRACTOR | The party which has a subcontract with EPCM CONTRACTOR or IMPLEMENTATION CONTRACTOR to provide services |
| SHALL | Indicates a mandatory requirement |
| SHOULD | Indicates a strong recommendation to comply with the requirements of this document |

* 1. **Abbreviations**

The following abbreviations are used in this document:

| **Abbreviation** | **Description** |
| --- | --- |
| ADNOC | Abu Dhabi National Oil Company |
| ADNOC Onshore | Abu Dhabi Company for Onshore Petroleum Operations |
| API | American Petroleum Institute |
| APS | Application Procedure Specification |
| ANSI | American National Standard Institute |
| ARO | After Receipt Order |
| ASME | American Society of Mechanical Engineers |
| ASTM | American Society for Testing & Materials |
| AVL | Approved Vendor List |
| BS | British Standard |
| CS | Carbon Steel |
| COG | Center of Gravity |
| DEP | Design & Engineering Practice |
| EPC | Engineering, Procurement & Construction |
| EN | European Norm |
| HSE | Health Safety and Environment |
| IP | Ingress Protection |
| ISO | International Organisation for Standardisation |
| ITP | Inspection and Test Plan |
| ITR | Inspection and Testing Requirement |
| MPQ | Manufacturing Procedure Qualification |
| MPS | Manufacturing Procedure Specification |
| MR | Material Requisition |
| MRB | Manufacturing Record Book |
| NACE | National Association of Corrosion Engineers |
| NDE / NDT | Non-Destructive Examination / Non Destructive Testing |
| NPS | Nominal Pipe Size |
| PMI | Positive Material Identification |
| PO | Purchase Order |
| PIM | Pre-Inspection Meeting |
| PQR | Procedure Qualification Record |
| PQT | Procedure Qualification Trial |
| PSL | Product Specification Level |
| PWHT | Post Weld Heat Treatment |
| QA / QC | Quality Assurance / Quality Control |
| SOW | Scope of Work |
| SPIR | Spare Parts Interchangeability Record |
| TPIA | Third Party Inspection Agency |
| UAE | United Arab Emirates |
| UT | Ultrasonic Testing |
| VDB | Vendor Data Book |
| VDI | Vendor Document Index |
| VDRL | VENDOR Document Requirement List |
| WPS | Welding Procedure Specification |

* 1. **Document Precedence**

Work on the Project shall be performed to the following Regulations, Codes and Standards, which are shown in their order of precedence below:

* The laws, standards and regulations of United Arab Emirates.
* ADNOC HSE Management Systems and Standards ADNOC Onshore Procedures, Codes and Standards.
* Project Specific documents, specifications, Data Sheets, Drawings.
* ADNOC Group Engineering Specifications (AGES) & ADNOC Onshore applicable Engineering Standard Specifications (ES).
* International Oil & Gas Industry Codes, Standards and Recommended practices (all where specified in above or, where none of the above is applicable, as proposed by EPCM CONTRACTOR and approved by COMPANY).

In cases of conflict between documents in the same level of the hierarchy, the most stringent requirement shall apply.

# Document Objective

The purpose of this Material Requisition is to define the minimum requirements for materials, manufacture / fabrication, surface protection, coating, testing, shipment and documentation of MOTOR OPERATED VALVES to be supplied for EPCM for the facilities coming under West East Pipeline Project of ADNOC at Jebel Dhanna area to transport offshore crudes to Fujairah during business continuity and business as usual scenarios.

The bid shall be in total compliance with this material requisition and referenced project specifications, codes and standards unless specific deviations are clearly identified by the VENDOR.

This Material Requisition shall in no way relieve the VENDOR from final guarantee for materials, apparatus, workmanship and performance of the MOTOR OPERATED VALVES to meet the specified operating conditions and duties.

English language shall be used for all design and technical documentation and correspondence.

Vendor shall also make an unequivocal statement that the MOTOR OPERATED VALVES offered are approved for installation in Abu Dhabi, UAE.

# SCOPE OF SUPPLY & SERVICES

* 1. **Scope of Supply Description**

In order to be considered to supply MOTOR OPERATED VALVES for this Project, VENDOR shall be listed as an Approved Vendor from COMPANY. Vendor shall provide “approved form” or “Vendor register number” as evidence that they are registered as ADNOC Onshore Approved Vendor. MOTOR OPERATED VALVES shall be supplied in fully compliance with Specification and datasheet as below:

* Specification for Emergency Shutdown Valves and ON/OFF Valves Document No. 30-99-39-1606
* ADNOC Specification for ON/OFF Valves Document No. AGES-SP-04-005
* Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - JEBEL DHANNA, Document No. P30312-03-99-40-1615
* Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - MOT Fujairah, Document No. P30312-24-84-40- 1615
* Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - IPS Sweihan, Document No. P30312-25-50-40- 1615
* Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - MPS Habshan, Document No. P30312-30-50-40- 1615
* Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - BVS, Document No. P30312-30-78-40- 1607
* Other Specification & Standard as listed in Section 7 of this MR.

The VENDOR’s scope shall include, but not be limited to the procurement of raw material, manufacture, coating, shop inspection & testing, performance guarantee, marking, preservation, packing, transportation, supply and documentation providing total performance guarantee and mechanical warranty as specified in the scope of supply of this MR.

VENDOR shall be responsible for meeting the requirements of this material requisition with its attachments, and the documents referred to within, to ensure safe and trouble-free operation for the MOTOR OPERATED VALVES.

All materials shall be sourced from the COMPANY approved VENDOR List.

Valves actuators and master stations shall be supplied from the same supplier considering that both shall be sourced from one of the following vendors (ROTORK, AUMA, BERNARD, BIFI, LIMITORQUE INT(FLOWSERVE).

It is VENDOR's responsibility to be familiar with all technical specifications and highlight in his offer any contradiction or inconsistency between specifications and datasheets.

VENDOR shall assume overall responsibility for the procurement (e.g purchasing MOTOR OPERATED VALVES raw material, protector, etc.), prepare Manufacturing Procedure Qualification (MPQ) and perform MOTOR OPERATED VALVES Manufacture Qualification, fabrication, prepare ITP in line with requirement of this MR, and perform inspection/testing, supply, guarantee, prepare MRB and documentation of MOTOR OPERATED VALVES. This Engineering service includes all necessary activity for submission approval and revising the document as per COMPANY/CONTRACTOR’s review.

This overall responsibility includes all necessary requirements for valves, e.g selecting Sub-Vendor’s (which shall be from COMPANY Approved Vendor List), procurement service for all required raw material comply to COMPANY Specification & Project Specification (as listed on section 7), developing procedure for MOTOR OPERATED VALVES qualification test, developed application procedure, preparing ITP, developing Coating Records & Test Book.

This shall include, but not limited to:

* Engineering including licenses, knowhow.
* Detailed engineering covering all activities necessary for material purchasing / expediting / inspections, manufacturing, testing, packing and delivery plus relevant technical documentation required for manufacturing record keeping and transportation for MOTOR OPERATED VALVES. The detail engineering design shall comply with all project specifications and requirements.
* All engineering activities required to provide post order documentation as per COMPANY requirements.
* Resolving engineering queries related to the scope of supply and all MOTOR OPERATED VALVES interfaces.
* Providing / managing all equipment and components to be able to supply the MOTOR OPERATED VALVES as per quantity / scope of supply as defined on section 4.2.
* Transportation.
* Lifting / stiffening arrangement required during lifting or transportation of MOTOR OPERATED VALVES.
* Tie down lugs for transportation.
* Lifting Lugs For lifting MOTOR OPERATED VALVES.
* Providing expediting services according to agreed format.
* Provide Traceability Record for manufactured MOTOR OPERATED VALVES and original Material Test Certificates.
* Provide progress reports (minimum monthly) according to agreed format.
* VENDOR co-ordination of the kick-off, technical and progress meetings at VENDOR office as necessary.
* Hydrostatic Testing

VENDOR to follow Concession Request form & Technical Query Form of COMPANY.

Any non-standard material shall not be used or shall be approved by EPCM CONTRACTOR / COMPANY before such usage.

Vendor shall use the latest Version / revision of the international codes & Standards that available at the time of Contract award.

The MOTOR OPERATED VALVES shall be within the range of the VENDOR’s commercially proven experience. VENDOR shall include in the technical bid his previous experience of the offered MOTOR OPERATED VALVES in similar service for the same design and rated conditions.

* 1. **Scope of Supply**

| **NO.** | **DESCRIPTION/SCOPE OF SUPPLY** | **Unit** | **Q’TY** | **Unit Price** | **Total price** |
| --- | --- | --- | --- | --- | --- |
| Bidder shall be responsible for the complete design, fabrication, testing and guarantee of the MOTOR OPERATED VALVES for WEP Project as described in this material requisition and its attachments to the satisfaction of the Contractor prior to shipment and to the satisfaction of the Company during the Valves hand over.  MOTOR OPERATED VALVES shall be according to Specification for all specification attached in MRQ any deviation shall be mentioned clearly by vendor.  The scope of supply shall include, but not limited to the following: | | | | | |
| **1.0** | **JEBEL DHANNA MOVs (as per Instrument Data Sheet Doc. No. P30312-03-99-40-** **1615)** | | | | |
| 1.1 | 03-49-MOV-10-01-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.2 | 03-49-MOV-10-02-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.3 | 03-49-MOV-10-03-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.4 | 03-49-MOV-16-01-06 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.5 | 03-49-MOV-13-01-06 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.6 | 03-49-MOV-13-01-10 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.7 | 03-49-MOV-13-01-09 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.8 | 03-49-MOV-16-01-09 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.9 | 03-49-MOV-16-01-10 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.10 | 03-49-MOV-13-01-14 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.11 | 03-49-MOV-13-01-15 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.12 | 03-49-MOV-16-01-08 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.13 | 03-49-MOV-16-01-11 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.14 | 03-82-MOV-18-41-02 42", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.15 | 03-82-MOV-09-14-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.16 | 03-82-MOV-09-15-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.17 | 03-82-MOV-09-16-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.18 | 03-82-MOV-09-11-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.19 | 03-82-MOV-09-12-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.2 | 03-82-MOV-09-13-02 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.21 | 03-82-MOV-11-11-06 8", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.22 | 03-82-MOV-11-12-05 8", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.23 | 03-82-MOV-11-00-05 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.24 | 03-82-MOV-11-00-06 6", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 1.25 | 30-80-MOV-51-X1-01 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.26 | 30-80-MOV-51-X1-02 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.27 | 30-80-MOV-51-X6-01 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.28 | 30-80-MOV-51-X6-02 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.29 | 30-80-MOV-51-X6-03 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.30 | 30-80-MOV-51-02-01 18", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.31 | 30-80-MOV-51-01-01 18", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.32 | 30-80-MOV-51-X9-01 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.33 | 30-80-MOV-51-X9-02 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.34 | 30-80-MOV-51-X8-01 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.35 | 30-80-MOV-51-X8-02 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.36 | 30-80-MOV-51-X1-03 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| 1.37 | 30-80-MOV-51-X8-03 12", Body Material (A216 WCB LINED WITH CHLOROPRENE RUBBER OR EPDM), Electric Motor Actuator | Each | 1 |  |  |
| **2.0** | **Special tools required for maintenance, pre-commissioning, commissioning, start up, initial operation for JEBEL DHANNA** | **LOT** | **1** |  |  |
| **3.0** | **Supply of start-up, Pre-Commissioning and Commissioning Spares. for JEBEL DHANNA** | **LOT** | **1** |  |  |
| **4.0** | **(Separate Quotation)**  **Itemized list of all recommended operational spares for 2 years for each package (provide a list in SPIR Form, APPENDIX 6) for JEBEL DHANNA** | **LOT** | **1** |  |  |
| **5.0** | **HABSHAN MOVs (as per Instrument Data Sheet Doc. No. P30312-30-50-40-** **1615)** | | | | |
| 5.1 | 30-50-MOV-13-02-20 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.2 | 30-50-MOV-13-02-13 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.3 | 30-50-MOV-13-02-21 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.4 | 30-50-MOV-13-02-14 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.5 | 30-50-MOV-13-02-05 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.6 | 30-50-MOV-13-02-23 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.7 | 30-50-MOV-10-07-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.8 | 30-50-MOV-10-07-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.9 | 30-50-MOV-10-08-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.1 | 30-50-MOV-10-08-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.11 | 30-50-MOV-10-09-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.12 | 30-50-MOV-10-09-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.13 | 30-50-MOV-13-03-06 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.14 | 30-50-MOV-13-03-12 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.15 | 30-50-MOV-13-03-11 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.16 | 30-50-MOV-13-03-09 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.17 | 30-50-MOV-13-03-10 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.18 | 30-50-MOV-11-02-07 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.19 | 30-50-MOV-11-03-02 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.20 | 30-50-MOV-11-00-05 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.21 | 30-50-MOV-11-00-06 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.22 | 30-78-MOV-13-37-04 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.23 | 30-78-MOV-13-37-05 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.24 | 30-78-MOV-13-37-03 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.25 | 30-78-MOV-13-37-12 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.26 | 30-78-MOV-13-37-10 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.27 | 30-78-MOV-13-37-09 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 5.28 | 30-78-MOV-13-37-06 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| **6.0** | **Special tools required for maintenance, pre-commissioning, commissioning, start up, initial operation for HABSHAN.** | **LOT** | **1** |  |  |
| **7.0** | **Supply of start-up, Pre-Commissioning and Commissioning Spares. for HABSHAN.** | **LOT** | **1** |  |  |
| **8.0** | **(Separate Quotation)**  **Itemized list of all recommended operational spares for 2 years for each package (provide a list in SPIR Form, APPENDIX 6) for HABSHAN.** | **LOT** | **1** |  |  |
| **9.0** | **SWEIHAN MOVs (as per Instrument Data Sheet Doc. No. P30312-25-50-40- 1615)** | | | | |
| 9.1 | 25-50-MOV-13-02-13 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.2 | 25-50-MOV-13-02-03 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.3 | 25-50-MOV-13-02-04 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.4 | 25-50-MOV-13-02-05 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.5 | 25-50-MOV-13-02-14 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.6 | 25-50-MOV-13-02-17 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.7 | 25-50-MOV-10-06-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.8 | 25-50-MOV-10-06-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.9 | 25-50-MOV-10-07-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.1 | 25-50-MOV-10-07-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.11 | 25-50-MOV-10-08-01 36", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.12 | 25-50-MOV-10-08-04 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.13 | 25-50-MOV-13-02-10 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.14 | 25-50-MOV-13-02-09 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.15 | 25-50-MOV-13-02-06 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.16 | 25-50-MOV-13-02-11 18", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.17 | 25-50-MOV-13-02-12 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.18 | 25-50-MOV-11-05-04 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.19 | 25-50-MOV-11-06-02 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.20 | 25-50-MOV-11-00-06 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 9.21 | 25-50-MOV-11-00-07 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| **10.0** | **Special tools required for maintenance, pre-commissioning, commissioning, start up, initial operation for SWEIHAN.** | **LOT** | **1** |  |  |
| **11.0** | **Supply of start-up, Pre-Commissioning and Commissioning Spares. for SWEIHAN.** | **LOT** | **1** |  |  |
| **12.0** | **(Separate Quotation)**  **Itemized list of all recommended operational spares for 2 years for each package (provide a list in SPIR Form, APPENDIX 6) for SWEIHAN.** | **LOT** | **1** |  |  |
| **13.0** | **FUJAIRAH MOVs (as per Instrument Data Sheet Doc. No. P30312-24-84-40-** **1615)** | | | | |
| 13.1 | 24-84-MOV-11-18-05 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 13.2 | 24-84-MOV-11-19-05 10", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| **14.0** | **Special tools required for maintenance, pre-commissioning, commissioning, start up, initial operation for FUJAIRAH.** | **LOT** | **1** |  |  |
| **15.0** | **Supply of start-up, Pre-Commissioning and Commissioning Spares. for FUJAIRAH.** | **LOT** | **1** |  |  |
| **16.0** | **Separate Quotation)**  **Itemized list of all recommended operational spares for 2 years for each package (provide a list in SPIR Form, APPENDIX 6) for FUJAIRAH.** | **LOT** | **1** |  |  |
| **17.0** | **BVS-2 MOVs (as per Instrument Data Sheet Doc. No. P30312-30-78-40- 1607)** | | | | |
| 17.1 | 30-78-MOV-10-24-01 48", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 17.2 | 30-78-MOV-10-24-06 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| 17.3 | 30-78-MOV-10-24-07 30", Body Material (A216 WCB), Electric Motor Actuator | Each | 1 |  |  |
| **18** | **Special tools required for maintenance, pre-commissioning, commissioning, start up, initial operation for BVS-2** | **LOT** | **1** |  |  |
| **19** | **Supply of start-up, Pre-Commissioning and Commissioning Spares for BVS-2** | **LOT** | **1** |  |  |
| **20** | **(Separate Quotation)**  **Itemized list of all recommended operational spares for 2 years for each package (provide a list in SPIR Form, APPENDIX 6) for BVS-2** | **LOT** | **1** |  |  |
| **21** | **VENDOR Documentation as per “Vendor Drawings and Data Requirement List”, Section 8.1.** | **LOT** | **1** |  |  |
| **22** | **Packing, marking, preservation and shipment as per specifications AGES-SP-07-011.** | **LOT** | **1** |  |  |
| **23** | **Material certification, Inspection and Testing as per cl. no : 8.4.2 & 8.4.5 and applicable PROJECT/Company Specifications / Standards AGES-SP-13-001 & AGES-SP-13-002.** | **LOT** | **1** |  |  |
| **24** | **Mechanical and Performance Guarantees and Warranties as per section 5.** | **LOT** | **1** |  |  |
| **25** | **Per diem rate for VENDOR Representative Assistance for pre-commissioning / commissioning and start-up at site.** | **PERDIEM** |  |  |  |
| **NOTES:** | | | | | |
| 1 | VENDOR shall be responsible to provide free and fair access to the manufacturing premises including those of SUB-VENDORs, to COMPANY/CONTRACTOR and its nominated representatives including the inspection agency for the purpose of Inspection and Expediting. | | |  |  |
| 2 | Certificates type 3.2 material certificate is required for valves where NACE is required, while 3.1 material certificate is required for valves where NACE not required for all MOTOR OPERATED VALVES. | | |  |  |

* 1. **Technical Notes**

1. All MOTOR OPERATED VALVES shall be strictly manufacture to ADNOC Specification for ON/OFF VALVES, Document No. 30-99-39-1606 along with AGES-SP-04-005 & other documents as mentioned in this Requisition.
2. Vendor shall supply all items per size, thickness, material and quantity as mentioned in the Material Requisition Scope of Supply.
3. VENDOR shall comply with the other Testing Requirements as mentioned in ADNOC Specification & other documents as mentioned in this Requisition.
4. VENDOR shall be responsible for providing weather protection, End protectors, Packing and Preservation for shipment in accordance with ADNOC/CONTRACTOR procedures and specifications. Additional preparation for shipment and Preservation after delivery shall be in accordance with technical specification. VENDOR shall review ADNOC / CONTRACTOR packing requirement and confirm the suitability for shipment to Abu Dhabi, UAE.
5. VENDOR shall not propose any exception and deviations, unless a requirement is technically impractical to apply or alternative design is clearly superior to the original design requirement. When alternative designs are proposed, VENDOR shall explicitly state the deviations and explain why the alternative design is superior to the Requisition. These explanations should focus on safety, reliability, and efficiency of the items supplied, while cost is generally not an acceptable justification for a Requisition deviation.
   1. **Exclusions from Vendor Scope**

VENDOR’s scope of supply shall specifically exclude the following items:

* Installation of MOTOR OPERATED VALVES at Site.

# GUARANTEES

* 1. **Vendor Responsibility**

VENDOR shall be responsible for all aspects of the work performed by VENDOR and his Sub-VENDORs. This shall include, but not limited to, responsibility for management, design development, quality, costs and scheduled performance.

Vendor shall carry out work not specified in the assigned order, which is necessary for the completion of the work; this shall include all integrating and interfacing of facilities and service provided under the assigned contract for the MOTOR OPERATED VALVES.

COMPANY/EPCM CONTRACTOR may audit the VENDOR performance, during all stage of the project, to ensure compliance with the requirements of the Order.

Approval of documents and technical solutions by COMPANY shall in no way relieve VENDOR of the overall responsibilities and obligation for the works under the Order.

Any variations that may occur for a complete and safe operability of the MOTOR OPERATED VALVES during detailed engineering in the supply phase shall be at VENDOR responsibility and cost.

In the event that any item fails to demonstrate any of the performance guarantees, totally or partially, during the performance test, then VENDOR shall promptly analyze the cause of failure(s) and shall take all necessary corrective actions upon COMPANY approval.

* 1. **Mechanical Guarantee**

The VENDOR shall guarantee that design and fabrication shall be performed in accordance with good engineering and industrial practice.

All MOTOR OPERATED VALVES shall be guaranteed by the VENDOR against defective materials, design and workmanship.

The guarantee shall be in accordance with the general purchase conditions, referenced project specifications and data sheets as listed in section 7 of this MR.

The guarantee shall include for coating against defective materials, design and workmanship. Any repairs and/or re-coated required after defect found shall be done at no additional cost to Purchaser. The warranty cover shall include repairs of any damage during transportation as per agreed on Purchase Order (PO).

VENDOR shall be fully responsible for all MOTOR OPERATED VALVES supplied by him.

All the MOTOR OPERATED VALVES shall be fully guaranteed for a period of twenty-four (24) months from delivery to the DELIVERY POINT or twelve (12) months from the date of the last Provisional Acceptance Certificate under the EPCM CONTRACT, whichever is later.

In the event that the Valves is rectified or replaced by the VENDOR under the provisions of this article, the guarantee period shall be extended for a period of 12 months following the satisfactory completion of the rectification or replacement of the items.

In addition, VENDOR’s guarantee shall be as following:

1. VENDOR shall guarantee the suitability of the material to the specified design conditions. Vendor shall warrant the materials and workmanship for a period, mentioned/agreed at commercial contract in compliance to COMPANY requirement. Under this warranty, all material found to be defective during the guarantee period shall be replaced by Vendor.
2. Approval of VENDOR’s documents and workmanship by CONTRACTOR shall not in any way relieve VENDOR from his responsibility to conform to Technical Specifications and other contract obligations.
3. VENDOR shall state all major manufacturing locations where the goods will be manufactured, including Sub-Vendor’s. Vendor shall ensure all the requirements as applicable for the vendor is to be implemented at any sub-vendor they plan to utilize under the contract.
4. All the material supplied shall be free from lamination, rust, dust, pitting or any other kind of surface defects.
5. The VENDOR shall guarantee the performance of MOTOR OPERATED VALVES as specified in data sheet and the applicable COMPANY specifications and international codes & standards.

# PRESERVATION PROCEDURE

VENDOR shall submit a packing, preservation and preparation procedure for CONTRACTOR and COMPANY review. VENDOR shall provide adequate rust prevention suitable for transportation to construction and storage Site to ensure that the MOTOR OPERATED VALVES will ultimately satisfy the guarantee.

The VENDOR shall prepare for COMPANY/CONTRACTOR review, comment and subsequent appraisal and implement a preservation procedure to prevent all MOTOR OPERATED VALVES from being exposed to damage, deterioration or incorrect handling. The preservation procedure shall commence prior to the MOTOR OPERATED VALVES being prepared for transportation.

The VENDOR shall ensure that all the deliverables are designed and packed for transit to site and that packing is suitable for export, seaworthy, transportation.

MOTOR OPERATED VALVES shall be supplied with suitable moisture preventive preservation as per VENDOR standard.

The VENDOR shall ensure that all MOTOR OPERATED VALVES are designed and packed for transit to site and that packing is suitable for export, seaworthy, transportation with an anticipated 12 months storage period.

Reinforcement for transportation, erection and loading / unloading during shipping, if necessary, shall be provided by VENDOR. The VENDOR shall include special slings with padded hooks, lifting beams or spreader beams required to lift the pipes prior to transport. All lifting equipment shall be proof load tested, marked and certified to the required safe working load. Slings, shackles and lifting beams shall be in the VENDOR' scope of supply.

# APPLICABLE DOCUMENTS AND DRAWINGS

The documents listed below and any other relevant specifications and standards mentioned elsewhere in these documents are applicable in their entirety, unless agreed exceptions

NOTE: - Revision status of documents listed below is captured at the issue date of this document. Recipient shall work to revision status of documents received if at subsequent revision status to that specified below.

* 1. **Project Specific Documents**

|  |  |  |
| --- | --- | --- |
| **Title** | **Document No.** | **Attached**  **(Yes/No)** |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- Jebel Dhanna | P30312-03-99-40-1615 | Yes |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- MOT Fujairah | P30312-24-84-40- 1615 | Yes |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- IPS Sweihan | P30312-25-50-40- 1615 | Yes |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- MPS Habshan | P30312-30-50-40- 1615 | Yes |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- BVS | P30312-30-78-40- 1607 | Yes |
| Piping Material Specification | P30312-30-99-12-0602 | Yes |
| Criticality Rating Procedure | P30312-30-99-90-1602 | Yes |
| Control And Safety System Philosophy | P30312-30-99-39-1607 | Yes |
| Specification for Emergency Shutdown Valves and on/ off Valves | P30312-30-99-39-1606 | Yes |
| Instrument & Control Design Basis | P30312-30-99-52-1601 | Yes |
| Specification For Field Instruments | 30-99-39-1604 | Yes |
| Specification For Instrument Installation | P30312-30-99-39-1609 | Yes |
| Passive Fire Protection Schedule | P30312-30-78-89-5604 | Yes |

* 1. **ADNOC Group Engineering Standards (AGES)**

|  |  |  |
| --- | --- | --- |
| **Title** | **Document No.** | **Attached**  **(Yes/No)** |
| Specification for ON/OFF valves | AGES-SP-04-005 | Yes |
| Contractors QAQC Requirement | AGES-GL-13-001 | Yes |
| Positive Material Identification of Equipment and Piping | AGES-GL-13-002 | Yes |
| Criticality Rating Specification | AGES-SP-13-001 | Yes |
| Procurement Inspection and Certification Requirement in Projects | AGES-SP-13-002 | Yes |
| Traceability of Shop & Field Piping Materials | AGES-SP-13-003 | Yes |
| Material Selection Guidelines | AGES-GL-07-001 | Yes |
| Fire and Gas Detection and Fire Protection system Philosophy | AGES-PH-03-002 | Yes |
| Specification for Manual Piping and Pipeline Valves | AGES-SP-09-003 | Yes |
| Pipeline Pneumatic Hydraulic valve actuator specification | AGES-SP-04-012 | Yes |
| Criticality Rating Specification | AGES-SP-13-001 | Yes |
| Procurement Inspection & Cert. Req. in Projects | AGES SP-13-002 | Yes |
| Clad Pipes, Fittings and Flanges Specification | AGES-SP-09-015 | Yes |
| Painting & Coating Specification | AGES-SP-07-004 | Yes |
| Requirement for Materials in Severe Service | AGES-SP-07-003 | Yes |

* 1. **ADNOC Onshore (COMPANY) Specification (ES) and Amendments**

|  |  |  |
| --- | --- | --- |
| **Title** | **Document No.** | **Attached**  **(Yes/No)** |
| Preparation of Supplier’s/Vendors Engineering Drawings and Documents | EP 30.99.90.0024 | Yes |
| Drawing Design and Numbering Systems | EP 30-99-90-0001 | Yes |
| ADNOC Onshore Guidelines for Submission of Electronic Documentation | EM 30-99-95-0006 | Yes |
| Procedure for Preparation of Final Project Documentation (Major Projects) | 30-99-11-0175 | Yes |
| Quality Requirements for Fusion Welding of Metallic Materials | ES-30-99-97-0021 | Yes |
| Guidelines - Projects Quality System Requirements | EP-30-99-00-8517 | Yes |
| Specification For Electrical Actuators | ES-30-99-39-0030 | Yes |

* 1. **International Codes & Standard**

| **Code** | **Code Title** | **Attached (Yes/No)** |
| --- | --- | --- |
| API STD 598 | Valve Inspection and Testing | No |
| API STD 600 | Steel Gate Valves - Flanged and Butt-welding Ends, Bolted Bonnets | No |
| API STD 607 | Fire Test for Quarter-turn Valves and Valves Equipped with Nonmetallic Seats | No |
| API STD 608 | Metal Ball Valves - Flanged, Threaded, and Butt-Welding Ends | No |
| API STD 609 | Butterfly Valves: Double Flanged, Lug- and Wafer-Type | No |
| API STD 941 | Steels for Hydrogen Service at Elevated Temperatures and Pressures in Petroleum Refineries and Petrochemical Plants | No |
| API STD 6FA | Specification for Fire Test for Valves | No |
| API Spec 6A | Specification for Wellhead and Christmas Tree Equipment | No |
| API Spec 6D | Specifications for Pipeline and Piping Valves | No |
| API RP 520 | Sizing, Selection and Installation of Pressure-relieving Devices | No |
| ASME B 16.5 | Pipe Flanges and Flanged Fittings NPS ½ through NPS 24Metric/Inch Standard | No |
| ASME B 16.10 | Face to Face and End-to-End Dimensions of Valves | No |
| ASME B 16.34 | Valves Flanged, Threaded and Welding End | No |
| ASME B 16.47 | Large Diameter Steel Flanges: NPS 26 through NPS 60 metric / inch Standard | No |
| ASME B 46.1 | Surface Texture (Surface Roughness, Waviness and Lay) | No |
| ASME Section VIII | Boiler and Pressure Code, Div. I | No |
| ASTM G93 | Standard Practice for Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen Enriched Environments | No |
| ASTM A240l240M | Standard Specification for Chromium and Chromium Nickel Stainless Steel Plate. Sheet. and Strip for Pressure Vessels and for General Applications | No |
| ASTM A269/269M | Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service | No |
| ANSI/ NACE MR 0175/ISO 15156 | Petroleum and Natural Gas Industries – Materials for use in H2S containing environments in Oil and Gas Production | No |
| ANSI/NACE MR0103/ISO 17945 | Metallic Materials resistant to Sulfide Stress Cracking in corrosive petroleum refining environments | No |
| NACE TM0177 | Laboratory Testing of metals for resistance to sulfide stress cracking and stress corrosion cracking in H2S environments | No |
| CENELEC EN 60947-5-6 | Low-Voltage Switchgear and Control gear Part 5-6: Control Circuit Devices and Switching Elements DC Interface for Proximity Sensors and Switching Amplifiers (NAMUR) | No |
| CEN EN 10204 | Metallic Products – Types of inspection documents | No |
| CEN EN 12266-1 | Industrial valves Testing of Metallic valves Part 1: Pressure tests, test procedures and acceptance criteria Mandatory Requirements | No |
| CEN EN 12266-2 | Industrial Valves - Testing of Metallic Valves Part 2: Tests, Test Procedures and Acceptance Criteria Supplementary Requirements | No |
| IEC 60079 all parts | Electrical Apparatus for Explosive Gas Atmospheres | No |
| IEC 60085 | Electrical insulation — Thermal Evaluation and Designation | No |
| IEC 60529 | Degrees of Protection Provided by Enclosures (IP Code) | No |
| IEC 60947-5-2 | Low-voltage switchgear and control gear - Control circuit devices and switching elements - Proximity switches | No |
| IEC 60947-5-6 | Low-Voltage Switchgear and Control gear Part 5-6: Control Circuit Devices and Switching Elements - DC Interface for Proximity Sensors and Switching Amplifiers (NAMUR). | No |
| IEC 61000 (All parts) | Electromagnetic compatibility (EMC) | No |
| IEC 60534-4 | Industrial-process control valves. Inspection and routine testing | No |
| IEC 60534-5 | Industrial-process control valves marking | No |
| IEC 61508 | Functional safety of electrical, electronic, and programmable electronic safety-related systems | No |
| ISO 9001 | Quality Management Systems - Requirements. | No |
| ISO 19011 | Guidelines for Auditing Management Systems | No |
| ISO 5208 | Industrial Valves – Pressure Testing of Metallic Valves | No |
| ISO 5211 | Industrial valves — Part-turn actuator attachments | No |
| ISO 15848-1 | Industrial valves Measurement, test and qualification procedures for fugitive emissions Part 1: Classification system and qualification procedures for type testing of valves | No |
| ISO 15848-2 | Industrial valves Measurement, test and qualification proceduresAGES-SP-04-005 Rev. No: 1  Page 14 of 53  4.2 ADNOC Specifications  Document Number Title  AGES-SP-04-004 Emergency Shutdown (SIS) System Specification  AGES-PH-03-002 Fire & Gas Detection & Fire Protection System  Philosophy  AGES-SP-09-002 Piping Material Specification Index  AGES-SP-09-003 Piping & Pipeline Valves Specification  5. REFERENCE DOCUMENTS  5.1 Standard Drawings  Valve Data Sheet IEC 60534-7 Control Valve Data Sheet  for fugitive emissions Part 1: Classification system andqualification procedures for type testing of valves. | No |
| ISO 14313 | Petroleum and Natural Gas Industries – Pipeline Transportation Systems – Pipeline Valves | No |
| ISO 28921-1/2 | Isolating Valves for Low-Temperature Applications | No |
| ISO 27895 | Vacuum Technology Valves Leak Test | No |
| ISO 10474 | Steel and steel products - Inspection documents | No |
| ISO 12490 | Mechanical integrity and sizing of actuators and mounting kits for pipeline valves | No |
| ISA TR96.05.01 | Partial Stroke Testing of Automated Valves | No |

**Notes：**

1. VENDOR shall be familiar with and in possession of other International Codes and Standards and / or cross referenced in the data sheets, specifications or any other documents. These are not attached with this Material Requisition. It is VENDOR’s responsibility to provide the bid in full compliance with the requirements of these Codes and Standards.
2. Latest codes with applicable addenda shall be followed unless otherwise specifically stated.

# VENDOR DOCUMENT INSTRUCTIONS

The VENDOR shall include the supply of all Documentation to define the Valves supplied for the purposes of:

* Design Code Compliance
* Regulatory Authority Approval
  1. **Vendor Document Requirements List (VDRL)**

The following table defines the scope, due dates and quantities required for each document type. The table also includes requirements for the inclusion of documents in the Manufacturing Record Book.

| **DOCUMENTS TO BE SUBMITTED WITH BID** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **VENDOR DOCUMENT NUMBERING REQUIREMENT** | | | | | | |
|  | **DELIVERABLE CLASSIFICATIONS (CLASS 1, 2 and 3) \*** | | | | | |
|  | **PART OF FINAL DOCUMENTATION (FINAL DOSSIER)** | | | | |
|  | **PART OF MANUFACTURER RECORD BOOK (MRB) -AON AGES REF.:** | | | |
|  | **PART OF VENDOR DATA BOOK (VDB)** | | |
|  |  | DESCRIPTION | REQUIRED BY CONTRACTOR WEEKS (ARO) |
| **A** | | | | | | **GENERAL DOCUMENTS** |  |
| x | x | 1 |  | x | x | VENDOR Document and Drawing Register |  |
| x | x | 2 |  | x | x | Manufacturing Schedule |  |
| x |  | 3 |  | x | x | Sub-Contract / Sub-Supplier List |  |
|  |  | 3 |  | x |  | Supplier's Major Sub Orders (Unpriced copies) |  |
|  |  | 3 |  |  |  | Progress Reports (Weekly/Bi-Weekly and Monthly) |  |
|  |  | 3 |  |  | x | Descriptive Literature & Catalogue Information |  |
|  |  | 3 |  |  | x | Sub Supplier Data Sheets / Literature / Manuals |  |
| **B** | | | | | | **CALCULATION** |  |
| x | x | 1 |  |  | x | Valve and Actuator Torque Calculations |  |
|  | **C** | | | | | **GENERAL DRAWINGS** |  |
|  | x | 1 |  | x |  | General Arrangement Drawings |  |
|  | x | 1 |  | x |  | Assembly Drawings |  |
|  | x | 2 |  | x |  | Name Plate Drawings |  |
| **D** | | | | | | **GENERAL DOCUMENTS AND DELIVERABLES** |  |
| x | x | 1 |  |  | x | Filled-in Technical Evaluation Compliance Sheets (TBR Sheet) |  |
| x | x | 2 |  |  | x | Project Filled-in Datasheet |  |
| x | x | 1 |  |  | x | Approved Deviation / Non-Conformity List |  |
|  | x | 2 |  |  | x | Unpacking, Preservation and Site Storage Procedure |  |
|  | x | 2 |  |  | x | Packing, Handling & Shipping Procedures |  |
|  | x | 2 |  |  | x | Preservation & Storage Procedure |  |
|  | x | 2 |  |  | x | Slinging / Lifting Arrangement and / or Strategies |  |
| **E** | | | | | | **QHSE PROCEDURES** |  |
| x |  | 3 |  |  |  | Project Specific Quality Plan and Quality Manual |  |
| x | x | 1 |  |  | x | Inspection and Test Plan (ITP) |  |
| x | x | 1 |  |  | x | Manufacturing Procedure Specification (MPS) |  |
|  | x | 2 |  |  | x | Manufacturing Procedure Qualification (MPQ) |  |
|  | x | 1 |  |  | x | Application Procedure Specification (APS) and Procedure |  |
|  | x | 2 |  |  | x | Weldability Test procedure |  |
|  | x | 2 |  |  | x | Heat Treatment Procedure |  |
|  | x | 2 |  |  | x | NDE / NDT Procedures & Schedule |  |
|  | x | 2 |  |  | x | PMI test as per Specification |  |
|  | x | 2 |  |  | x | Seat Tightness Test as per API 6D |  |
|  | x | 2 |  |  | x | General Functional Tests for the complete assembly (valve+ Actuator Assembly + accessories): - Stroking Time test - Partial stroke Test - Torque /Thrust Testing (Valve & Actuator) - |  |
|  | x | 2 |  |  | x | Hydro test procedures API 6D (Un Painted Condition) |  |
|  | x | 2 |  |  | x | Surface Preparation & Paint System Specification |  |
|  | x | 2 |  |  | x | Material Color Coding, Marking and Traceability procedure |  |
|  | x | 2 |  |  | x | Inspection, Testing and Acceptance Test Procedures / FAT procedure |  |
|  | x | 2 |  |  | x | Pre-Commissioning, Commissioning and Site Acceptance Test (SAT) Procedure |  |
|  | x | 2 |  |  | x | Miscellaneous Performance & Test Procedures (i.e. Punch List Procedure) |  |
| **F** | | | | | | **SPARE PARTS & SPECIAL TOOLS** |  |
|  |  | 3 |  |  | x | Schedule of Spares for installation, pre-commissioning & commissioning |  |
|  | x | 2 |  |  | x | Schedule of Spares - one year’s Operation |  |
|  | x | 2 |  |  | x | Schedule of Spares - Insurance & Capital |  |
|  |  | 3 |  |  | x | Schedule of Special Tools and Tackles |  |
| **G** | | | | | | **SHIPPING & PACKING DOCUMENTS** |  |
|  |  | 3 |  | x |  | Shipping Release Note / Certificates (SRN/SRC) |  |
|  |  | 3 |  | x |  | Shipping and Packaging Documents (Packing List) |  |
| **H** | | | | | | **MANUALS** |  |
|  | x | 2 |  |  | x | Installation, Operating & Maintenance Manuals Index |  |
|  | x | 3 | x |  |  | Installation, Operating & Maintenance Manuals (IOM) |  |
|  | x | 2 |  | x |  | Manufacturer's Data Report Index |  |
|  | x | 3 | x | x |  | Manufacturer's Data Report (MDR) |  |
|  | x | 3 | x | x |  | Maintenance Schedule |  |
|  | x | 2 |  |  | x | Vendor Databook (VDB) Index |  |
|  | x | 3 | x |  | x | Vendor Databook (VDB) |  |
|  | x | 3 | x |  | x | Training Manuals (Operation & Maintenance) |  |
| **I** | | | | | | **QA/QC REPORT/RECORD/REGISTER ABD CERTIFICATES** |  |
|  | x | 3 |  | x |  | Signed Inspection & Test Plan |  |
|  | x | 3 |  | x |  | Factory Acceptance Test Report / FAT Certificate |  |
|  | x | 3 |  | x |  | Site Acceptance Test Report / SAT Certificate |  |
|  | x | 3 |  | x |  | Performance Report |  |
|  | x | 3 |  | x |  | All QA/QC related reports and certificates |  |
|  | x | 3 |  | x |  | Warranty Certificate |  |
|  | x | 3 |  | x |  | Certificate of Conformity, stating compliance as per Purchase Order (PO) |  |
|  | x | 3 |  | x |  | Code compliance certificates |  |
|  | x | 3 |  | x |  | Inspection/test records |  |
|  | x | 3 |  | x |  | SIL Certificates by TUV/EXIDA as per ISS |  |
|  | x | 3 |  | x |  | Fire Safe Certificates as per ISS |  |
|  | x | 3 |  | x |  | Inspection Certificate for the complete assembly as per ISO EN 10204 . |  |
|  | x | 3 |  | x |  | Issue of Final Release Certificates by purchaser |  |
|  | x | 3 |  | x |  | Check of Calibration Certificates for the used testing instruments |  |
|  | x | 3 |  | x |  | Weather Protection & Hazardous Area Classification Certificates |  |
|  | x | 3 |  | x |  | Heat treatment records |  |
|  | x | 3 |  | x |  | Compliance with purchase order description, Specification, Certified Drawings, Paint Specification, Supplier’s |  |
|  | x | 3 |  | x |  | Warranty & Guarantee certificates |  |

ARO – After Receipt of Order

**\*** Class 1 - COMPANY Approval required, Class 2 - COMPANY Review required, Class 3 – For COMPANY information only

**Notes：**

1. The above list is not exhaustive, Vendor should develop the detailed VDRL based on above.
2. FINAL DOCUMENTATION (FINAL DOSSIER) shall cover the MRB and VDB plus additional documents generated after delivery to site.
3. All Native files shall be submitted along with MRBS/VDBs.
4. Vendor to submit documents along with BID as identified in the above VDRL and document listed in Section 8.3 of this document.
   1. **VDRL – General Instructions**

It is a condition of any Purchase Order that all data and drawings (hereinafter called documents) shall be submitted to the CONTRACTOR in the manner and time period stated. The Purchase Order will not be considered complete until all documentation has been submitted and accepted.

All documents (procedures, data sheets, manuals, etc., both hard copies and electronic files) shall be prepared and supplied according to document EP 30.99.90.0024 “Engineering Procedure Preparation of VENDOR’s Engineering Drawings and Documents” and “Engineering Procedures for Drawing Design and numbering System EP 30.99.90.0001” and Specification for submission of electronic documentation ES 30.99.95.0006.

Documentation shall be submitted as per the requirements indicated in VENDOR Drawings and Data Requirement List (VDRL).

English language shall be used for all documents, drawings and correspondences.

All documents shall state Project Name, Project No, CONTRACTOR Request No, Employer Name, Item No and Description of the Valves and/or material.

Final VENDOR drawings shall include all data relevant to the “final” status of the work and shall be submitted in hard copy and digital/electronic format as detailed in COMPANY Engineering Procedure EP 30.99.90.0024.

P Documents shall be included in the Manufacturing Record Book.

M Documents shall be included in the Installation/Operation/Maintenance Manual

MC Documents shall be included in the Mechanical Catalogue

Reviewed documents to be inserted in the Data Books must be Certified Final versions. These documents must be stamped and signed by the CONTRACTOR responsible engineer.

* 1. **Documents to be submitted with BID**

The following documents/information shall be provided by VENDOR along with his offer (as a minimum in order to be qualified for further evaluation):

* Deviations/Exception to this material requisition and attachments (if any), to be filled-up as per format given on section 9 and Attachment 1.
* Sub-Contract / Sub-Supplier List
* Application procedure specification (APS) & Procedure Qualification Trial (PQT) for external coating
* Material chemical composition
* Signed and stamped copy of Material requisition, ADNOC Specification, Data sheet as listed in section 7.
* Duly filled-in data sheets
* Scope of supply list, item description and estimated tonnage
* Valves empty/shipping weights and COG
* Proposed manufacturing / delivery schedule
* Proposed Quality Assurance / Safety Plan
* Sample material certification.
* The copy of manufacturer’s ISO 9001 accreditation certificates confirming validity period
* Accreditation (If Applicable)
* Quality Manual, typical
* Sample Inspection and Test Plan
* Previous supply list for MOTOR OPERATED VALVES (including previous supply to ADNOC Onshore), indicating Contractor / Owner name, year of supply, size and operating principles.
* Previous supply list for (including previous supply to ADNOC Onshore), indicating Contractor / Owner name, year of supply.
  1. **Technical Documentation Descriptions**

This Section describes the content of specific documents.

* + 1. **Vendor Document Index (VDI)**

Documents which satisfy the VDRL Document Titles shall be listed on the VENDOR Document Index (VDI), indicating their earliest submittal dates. This will then be used by the VENDOR and the CONTRACTOR and shall be updated on a continuous basis.

The VENDOR shall list all documents and their document number on the VDI. The CONTRACTOR’s documents numbers will be added at the first review of the VDI. All documents subsequently submitted shall be identified with their relevant CONTRACTOR document number. Any urgent documents submitted with, or prior to, the VDI will be marked with a CONTRACTOR document number as part of the review comments. These numbers shall be identified on the originals by the VENDOR for their next submission.

* + 1. **Vendor Quality Plan and Inspection and Test Plan (ITP)**

The VENDOR Quality Plan / Inspection & Test Plan shall show the planned activities, resources and events serving to implement and record the implementation of the VENDOR Quality system relevant to the goods in accordance with ISO 9001: 2015 - Quality Management Systems - Requirements.

For MOTOR OPERATED VALVES Sample ITP as per ITP, AGES-SP-04-005 shall be followed as minimum.

VENDOR shall fully comply with ADNOC AGES-GL-13-001 Contractors QAQC Requirement and Inspection and Test.

The Inspection and Test plan shall list documentation / design reviews for MOTOR OPERATED VALVES, the principal manufacturing steps, type of inspection / test, the Controlling Procedure, the acceptance standard and the appropriate certification issued at successful completion. The Inspection and Test Plan shall include space for CONTRACTOR to advise inspection Hold / Witness points and whether the inspection will be by CONTRACTOR, Third Party, or Client. VENDOR shall indicate on the Inspection and Test Plan all surveillance that VENDOR will carry out of Sub-VENDOR’s goods. As a minimum, the Inspection and Test Plan shall cover all stages indicated under clause 10.3.

VENDOR may use his standard format of Inspection and Test Plan provided the content includes the minimum information shown in Attachment 2.

The Approved Inspection and Test Plan shall be discussed with the VENDOR during any pre‑production and Pre-Inspection meeting at the VENDOR’s works (as required). The agreed Inspection and Test Plan shall be held by the VENDOR and initiated progressively by the VENDOR's inspector, CONTRACTOR’s inspector, and any other authorized inspectors to demonstrate successful completion of each inspection activity.

* + 1. **Manufacturing Schedule**

A network or bar chart showing all activities from award through to shipment of MOTOR OPERATED VALVES, containing complete details of VENDOR’s and sub-VENDOR’s activities. It shall be suitable for VENDOR to report progress and CONTRACTOR to assess and monitor performance.

* + 1. **Parts List**

The Parts List shall contain enough information to identify fully the components, such as; item number, description, make, size and type, quantity, design/operating/test conditions.

* + 1. **Test And Material Certificates**

The requirements for material and test certificates are defined within this document and referenced specifications and data sheets. CONTRACTOR reserves the right to request Certificates for any inspections listed on the VENDOR Inspection and Test Plan. Test certificates are required for all shop tests for both VENDOR's and sub‑VENDOR's goods. All certificates shall be fully identified with the Item Number and CONTRACTOR Purchase Order Number and shall include a description of the test method and the full results. VENDOR shall maintain suitable control of all materials used and shall keep a record of their certified chemical and mechanical properties.

Material Certificate and test report shall be in English.

* + 1. **Manufacturing Record Book (MRB)**

The Manufacturing Record Book is a compilation of Production record documents, as identified in section 8.1 of the VENDOR Document Requirements List (VDRL). All Data Books must have a Table of Contents detailing all sections and total number of pages.

VENDOR shall submit MRB index for review & approval. MRB index shall be approved by CONTRACTOR / COMPANY.

* The table of contents of the Manufacturing Record Book shall be submitted sixty (60) days before the shipping date of the supply.
* The First issue of the Manufacturing Record Book shall be available thirty (30) days before the shipping date of the supply. When two or more shipping dates apply, the above-mentioned documentation shall be available thirty (30) days before the first shipping date.
* Within twenty (20) days from the shipping date, the required number of final copies of the VENDOR Data Book shall be submitted (as-supplied revision that will be used during installation, pre-commissioning, and commissioning).
* VENDOR shall include final revision (refer to VENDOR Data Drawing and Data Requirement List for the timing), for use during operation and maintenance.

The manufacturing Record Book shall include all documentation relating to the manufacturing / production process involved in the supply of the MOTOR OPERATED VALVES material, such as analysis of raw materials, production inspection and testing reports, expediting and shipping and correspondence related to the above. On manufacturing record Book containing original or certified as original document is required.

A separate Manufacturing Record Book shall be supplied for each tagged item.

All pages within the Manufacturing Record Books must be clearly marked on both front and spine with:

i) Project Title & Purchase Order Number

ii) MOTOR OPERATED VALVES Material Description

iii) Item or Tag Number

iv) Page Number (where practicable)

Manufacturing Record Book shall be prepared in accordance with ADNOC Specification for ON/OFF VALVES. All prior approved documents must show the signed acceptance stamp of the CONTRACTOR.

The Manufacturing Record Book shall be complete for final inspection and submitted to the Inspector prior to material dispatch. Following Inspectors acceptance, the VENDOR shall dispatch one complete hard copy set of the Manufacturing Record Book with the goods, and the remaining copies shall be dispatched to the CONTRACTOR.

Final documents shall be as per EP 30-99-11-0175 - Preparation of Final Project Documentation (Major Projects).

* + 1. **Certificates Of Conformity**

The VENDOR shall certify that the goods are manufactured in accordance with the Purchase Order. The Certificates of Conformity shall be available to the CONTRACTOR’s inspector during final inspection.

* + 1. **Vendor Catalogue**

The VENDOR shall compile a complete Catalogue which is a bound compilation of VENDOR's specifications, procedures and data for general reference, as identified (M) in para 8.1 (DATA BOOK).

VENDOR shall initially submit only one copy of this document for review. Once the CONTRACTOR is satisfied with the format and content, VENDOR shall then submit the remaining copies in accordance with the requirements of para 8.1.

All previously approved documents must show the signed approval stamp.

A2 and A3 size prints shall be supplied folded to A4 size with the title block showing in the bottom right-hand corner.

VENDOR shall bind the Mechanical Catalogue using four, 6mm round holes on an 80mm spacing and with a 25mm margin. Vendor Shall Not Supply the Catalogue in Spiral Binders.

* + 1. **Certified Final Documents**

VENDOR shall provide Certified Final documents as specified herein.

VENDOR's authorized Engineer shall mark the documents "CERTIFIED FINAL" and sign and date the documents to confirm that these are final VENDOR documents or final SUB-VENDOR documents, incorporating all CONTRACTOR comments, and that the documents accurately describe the design.

VENDOR shall revise and reissue immediately the Certified Final documents to show any agreed concessions or corrective actions.

* + 1. **Redline Mark-up (RLMU)**

VENDOR / SUB-CONTRACTOR shall update the drawings & documents in next revision of AFC to capture the changes or modification at shop/site inline with the actual construction / fabrication as Redline mark-up (in PDF).

Relevant approved Redline Mark-up stamps shall be provided in each drawing sheet or / document and signed by authorized VENDOR / SUB-CONTRACTOR & IMPLEMENTATION CONTRACTOR Engineers and submit for COMPANY approval.

Refer ADNOC Engineering specification document no. 30-99-11-0175 - Procedure for Preparation of Final Project Documentation / Data for the applicability of Redline Mark-up deliverables.

* + 1. **As-built**

All drawings and documents shall be electronically updated in the relevant software’s as per the approved redline Mark-up drawings by COMPANY complying the drafting standards and upgraded to next revision for final COMPANY approval.

Vendor Data Book / Manufacturer Data Book shall have As-built drawings during final submission.

* + 1. **Native Files Requirement**

All Native / Raw file (Autocad, Excel, Word, meter calculations, etc) of approved drawings and documents shall be provided during AFC & As-built submission cycle for all the drawings and documents for final documentation closure.

# DEVIATIONS LIST

Vendor shall make all possible efforts to comply strictly with the requirements of this requisition and referenced specifications / attachments. In case deviations are considered essential by the vendor (after exhausting all possible efforts) these shall be separately listed. No deviations on account of cost or time benefit shall be considered. The VENDOR shall state all such deviations in the following list any proposed deviations to the material requisition and referenced documents that are included in the quotation. The VENDOR’s quotation shall be deemed to comply with all the requirements of the material requisition and referenced attachments except as specifically listed below.

Post order deviation shall not be accepted.

The VENDOR’s scope of work and supply shall fully comply with the requirements of this requisition and referenced attachments except for the deviations listed in the following table.

| Sl. No. | Specification/ Doc. Number | Paragraph/ Clause No. | Specification/datasheet/Shell DEP/Codes & Standards/Other document Requirement | Vendor Exception, Deviation with Technical justification | Deviation Category (C/D) See Note-3 | CPE/ARCO Reply | ADNOC Onshore Response |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Note:  1. Bidder to mention all deviations in the above list.  2. Except the deviations mentioned above, Bidder confirms and complies to all other requirements of all project documents/drawings in MR package.  3. Bidder to also provide Category of each Deviation, as per following,  Category D: Deviations  Category C: Comments and clarifications.  4. Bidder to mention "No deviation", if they do not have any deviations against any of the documents in MR package.  5. Bidder to fill and submit signed & stamped copy of the deviation list. | | | | | | | |

# INSPECTION REQUIREMENTS

* 1. **Definitions**
     1. **Surveillance**

Surveillance comprises all CONTRACTOR activities performed to verify that goods meet the specified requirements, including audit, design review, and inspection.

* + 1. **Inspection**

The process of measuring, examining, testing, gauging or otherwise comparing the items with the applicable requirements.

* + 1. **Hold (H) Inspection**

A Mandatory Hold shall be applied to the production schedule and the test shall be performed with the CONTRACTOR in attendance.

* + 1. **Witness (W) Inspection**

The CONTRACTOR requires notification of the inspection timing. However, the inspection is performed as scheduled and if the CONTRACTOR is not present, the VENDOR can proceed to the next step.

* + 1. **Review (R) Inspection**

The CONTRACTOR shall review the appropriate inspection documentation/certification but does not require a formal notification of the inspection timing. This inspection is normally performed as part of a scheduled inspection visit by the CONTRACTOR. If the CONTRACTOR is not present, the VENDOR can proceed to the next step.

* + 1. **Review (A) Inspection**

Inspection documentation requires formal approval.

* + 1. **Source**

This normally means the VENDOR's works where the goods are manufactured and where surveillance is carried out.

* 1. **Criticality Rating & Inspection Class**

The Criticality Rating for the MOTOR OPERATED VALVES & SHUTDOWN VALVES is 1. Accordingly, Inspection Class I for all MOTOR OPERATED VALVES & SHUTDOWN VALVES. Material certification requirements in accordance with EN10204 / ISO 10474 Type 3.2 material certificate is required for valves where NACE is required, while 3.1 material certificate is required for valves where NACE not required by the VENDOR for MOTOR OPERATED VALVES.

* 1. **Principal Stages of Inspection and Testing**

The following table gives the minimum level of source inspection which will be carried out by the PURCHASER or his nominated representative: -

VENDOR shall be responsible for providing free and fair access to the manufacturing premises including those of SUB-VENDORs, to COMPANY and its nominated representatives including the inspection agency for the purpose of inspection and expediting.

| STAGES OF INSPECTION FOR Valves | | Extent of CONTRACTOR Involvement (Inspection class 1 & criticality rating 1) | Extent of COMPANY Involvement (Inspection class 1 & criticality rating 1 |
| --- | --- | --- | --- |
| **Before Manufacturing** | | |  |
| Pre-Production/ Pre-Inspection Meeting | Pre-Inspection Meeting (PIM) | H | H |
| Review Material Requisition & Attachments | H | H |
| Review Inspection & Test Plan (ITP) | H | H |
| Vendor’s Quality Control Plan | H | H |
| Material and Component Test Certificates | H | H |
| Welding book (weld map + PQR + WPQ + WPS + repair procedure) | H | H |
| NDE procedure + NDE operator | H | H |
| Testing procedure (Weldability Test, hydrotest, hardness, impact test, etc. as required in VDRL) | H | H |
| PWHT procedure, as applicable | H | H |
| Hardness test procedure as applicable | H | H |
| Pickling and passivation procedure | N/A | N/A |
| Painting procedure | N/A | N/A |
| Manufacturing and Control plan / schedule by vendor required | H | H |
| MPS and MPQ for MOTOR OPERATED VALVES | H | H |
| Sub-Vendors PO | H | H |
| Document list by Vendor Required | H | H |
| Monthly Progress Report by Vendor Required | H | H |
| Sub vendor List by vendor required | H | H |
| Nonconformity reports & corrective actions reports by vendor required | H | H |
| Review QA System | H | H |
| **Manufacturing** | | |  |
| Materials | Check of incoming materials – Chemical analysis and mechanical properties, Carbon equivalent check, etc. | W | W |
| Identify Major Materials | W | R |
| Concession Request | R | R |
|  | Chemical Physical Properties | W | R |
|  | Supplementary testing (if any) | W | R |
|  | Material Certificate / Traceability | R | R |
|  | Material Heat Treatment | W | R |
|  | Visual/Dimensional Inspection | R | R |
| Non Destructive Testing | NDT Operator Approval  NDT Procedures  Review Radiographs  All other NDT as per Specification & Datasheet | R  R  R  R | R |
| Heat Treatment | Set-up / Supports  Heat Treatment  NDT After Treatment  Hardness Check After Treatment | R  R  R  R | R |
| Additional Material Tests | Operator Approval  Material Test (e.g. Hardness Test) | R  R | R |
| Final Inspection | - Visual/dimensional inspection  - Hydrostatic Test for 100% unpainted Valves as per API 6D/API 598  - Seat Leakage Test  - Material Marking  - Completeness check  - Functional Test for 100% of valves with all accessories (actuator, body, solenoid, positioner etc...) at max DP shut-off pressure  - Leak Test for Connecting Tubing. (for SDV)  - Torque/Thrust Function Test as per API 6D/API 598  - Fire safe test according to API 607 / API 6FA  - Stroking time test. | H  H  H  H/R  H  H  H  H  H/R  H | H |
| Coating / Finish | Surface Preparation  Temporary Coating for protection from rust, etc.  Polish Inspection | R  H/R  H/R | W  W |
| Preparation for Shipment | Visual /Dimensional Inspection  Marking/Completeness Inspection  Cleanliness Inspection  Drying and preservation  Packing Inspection  Transport Supports & Fixtures  Inspection Release note | W  W  W  W  W  W  H  H  H/R | W  W  A |
| Dispatch Verification | Design Documentation Certified  Certification/Data Book  ITP Complete  Certificate of Compliance Signed  Issuance of Inspection Release Note | H  H  H  H  H | R  R  R  R  R |
| Documents | Material Certificate/Mill and Test Report  Manufacturing Data Book | R  R | R  R |
| Site Receipt | Packing Inspection  Visual/Dimensional Inspection  Documentation | H  H  H |  |

* 1. **Inspection/Release Requirements**
     1. **Reports Of Vendor Surveillance**

VENDOR shall make available to the CONTRACTOR, on request;

* Inspection Reports covering: receipt inspection, in-process inspection, SUB‑VENDOR inspection, and final inspection.
* QA Audit Reports covering internal VENDOR audits and VENDOR audits of SUB-VENDOR's.

Design Review Reports (or other evidence) covering the VENDOR review of VENDOR and sub-VENDOR design.

* + 1. **Certifying Authority / Independent Third Party / Authorized Inspector**

Here required, written design approval for the MOTOR OPERATED VALVES will be obtained by the VENDOR from the Certifying Authority/Independent Third Party/Authorized Inspector before manufacture commences. The VENDOR shall submit under cover of a transmittal to the Certifying Authority/Independent Third Party/Authorized Inspector, two copies of all main design drawings, calculations, weld procedures and any other requested information.

Where required, the VENDOR shall arrange for the Certifying Authority/Independent Third Party/Authorized Inspector’s survey of the MOTOR OPERATED VALVES, giving due notice of all inspection points and allowing full access to his works. The VENDOR shall submit to them a manufacturing schedule together with a list of SUB-VENDORS/locations/works/sites at which MOTOR OPERATED VALVES is to be manufactured, one month before manufacture commences.

The VENDOR shall issue to the CONTRACTOR a copy of all transmittals and correspondence sent to the Certifying Authority/Independent Third Party/Authorized Inspector.

Upon satisfactory completion of manufacture, the Certifying Authority/Independent Third Party/Authorized Inspector will issue a release note which the VENDOR shall include in the Manufacturing Record Book.

* + 1. **Traceability**

Material traceability is required to ensure that the MOTOR OPERATED VALVES can be identified against material certificates issued by the original VENDOR.

It shall be the responsibility of the VENDOR to obtain the above certificates, suitably verified if appropriate as required by the VDRL. All co-ordination and expediting of the sub-VENDORs to comply with these requirements shall be the responsibility of the VENDOR.

The VENDOR shall be responsible for ensuring his material control system is operating in such a manner that all the MOTOR OPERATED VALVES materials are traceable to their relevant original material certificates.

* + 1. **Inspection Release Note (IRN)**

Vendor’s Quality Department shall prepare and endorse the Inspection Release Certificate (IRC), including IRC from Sub-Vendor, along with the original and copies of MRB package and shall ensure all inspections are complete, all technical and quality documents are approved final by client and ADNOC Onshore, NCR / CAR (if any), TQs and TDs (if any) are approved and closed. The package shall also include the Inspection Release Note (IRN) and MRB of sub-vendors (if any) engaged for the contract. The completed IRC package shall then be submitted to EPCM CONTRACTOR and COMPANY for review and endorsement prior to release for packing and shipping.

The IRN shall be marked with or have attached a list of references of its supporting material certificates. Where the list is separate, it shall also be wet stamped by the EPCM CONTRACTOR’s inspector.

IRN will not be issued to Vendor if any open punch list

One (1) completed set of MRB and IRC shall be dispatched as per clause 8.4.6

* + 1. **Certification To Accompany Goods**
* VENDOR’s certificate of compliance/final inspection clearance
* Certifying authority inspection release notes (where applicable)
* CONTRACTORS’s inspection release certificate (IRC) or waiver
* Test results (as applicable)
* QC punch list detailing any uncompleted work (approved by the CONTRACTOR)

The VENDOR shall ensure that unless identified other in the purchase order, as a minimum, one authenticated copy (i.e. stamped by the VENDOR as a true copy) of the above documentation accompanies goods shipped to the CONTRACTOR’s sites.

# QUALITY ASSURANCE REQUIREMENTS

* 1. **Quality System**

The VENDOR shall maintain and use a Quality System which is based on ISO 9001 (2015 edition) Quality Management Systems to control the work.

The VENDOR shall implement ADNOC AGES-GL-13-001 Contractors QAQC Requirement in all stages of related procurement & manufacture activities for the PROJECT.

If the VENDOR selects sub-contractors for part of the work, he shall ensure that only those SUBCONTRACTOR’s or VENDOR’s are used who can demonstrate that they operate Quality Systems based on ISO 9001 (2015 Edition). VENDOR shall be responsible to pass on the relevant specifications to the Sub-vendors. The VENDOR shall give his SUBCONTRACTOR or VENDOR’s assistance in attaining the required standard, if necessary. This shall not relieve the VENDOR of his responsibility for the quality of the finished work. COMPANY reserves the right to audit the VENDOR’s Quality System. VENDOR shall submit a Sub-vendor List for CONTRACTOR & COMPANY approval as applicable. Sub-vendor work will not start without Sub-vendor List approval. Usage of a Sub-vendor not reflecting in the COMPANY Approved Vendor List shall be subject to CONTRACTOR / COMPANY approval.

The VENDOR shall assign sufficient full time personnel to the PROJECT to ensure the Quality Assurance / Quality Control System, documented in a Quality Assurance / Control Manual, which is maintained and kept up-to-date throughout the duration of any purchase order. The VENDOR’s Quality Assurance / Control System shall become an integral part of any purchase order. VENDOR shall organize a prefabrication / inspection meeting with COMPANY and CONTRACTOR.

Vendor shall provide necessary access to its premises to carryout required audits by COMPANY/CONTRACTOR, as required during execution of project (Pre award, Post award audit).

* 1. **Release for Manufacturing**

Following acceptance of a Purchase Order, VENDOR shall proceed to submit documentation, order materials and place all sub-orders sufficiently early to meet the requirements of the production program.

No technical deviations shall be accepted by COMPANY / CONTRACTOR after PO placement, as required by ADNOC AGES-GL-13-001 Contractors QAQC Requirement.

Where the requisition specifies that certain documents shall be received and cleared by CONTRACTOR before manufacture may proceed, manufacture shall be considered under hold until the CONTRACTORs comment status code indicates otherwise.

* 1. **Non-Conformities and Concessions**

VENDOR shall at his own expense correct any non-conformity to the Purchase Order or any feature which may affect operation, integrity or interchangeability. However, if correction of a non-conformity would prevent VENDOR meeting his schedule obligations, VENDOR shall propose appropriate action to the CONTRACTOR via a Concession Request form. CONTRACTOR’s formal written agreement on a Concession Request is required before proceeding with corrective action. VENDOR to follow Concession Request form & Technical Query Form of COMPANY.

Unless otherwise instructed in writing by CONTRACTOR, Purchase Order requirements shall be adhered to.

Any outstanding Punch List Items shall be completed by the VENDOR and shall be inspected by CONTRACTOR before shipment unless otherwise agreed.

Any non-standard material shall not be used or shall be approved by CONTRACTOR / COMPANY before such usage.

Material shall not be released with open NCR or deviation.

* 1. **Codes and Regulations**

VENDOR shall ensure that all the MOTOR OPERATED VALVES conform to all applicable codes and regulations, and shall obtain approval of local or national authorities or any specific approvals required by the Purchase Order.

* 1. **Material Identification**

All material shall be identified, marked, or color coded as stated within this document and its referenced specifications, standards and data sheets.

Vendor shall submit the procedure for marking & traceability for CONTRACTOR / COMPANY approval.

* 1. **Pre-Inspection Meeting (PIM) At Vendor Facility**
* Pre-Inspection Meeting (PIM) is conducted to address critical quality control activities and related areas of concern. Project Quality authority in charge shall chair the Pre-Inspection Meeting.
* Pre-Inspection Meeting at vendor production facility with all concerned parties/stakeholders shall be conducted before any work commencement.
* PIM at critical sub-vendors shall be evaluated case by case. Same CR1 criteria applies for critical Sub-Vendors.
* During the PIM, previous lessons learned related to the Vendor and / or any similar materials being supplied, shall be discussed.
* CONTRACTOR / ADNOC Onshore shall review and approve all related documents issued by vendor before any job commencement.
* ADNOC Onshore should be notified for attending PIM at least by 2 working weeks before the meeting (to be extended in case that travelling VISA is required).
* During the PIM, the detailed inspection and test plan (ITP), which include inspection hold, witness, and review points, shall be discussed and finalized in case of still open/pending issues from previous document review stage.
* PIM package shall be submitted for final review and approval before production start by at least 2 working weeks (see below PIM Package contents and minimum requirements).

The following is a typical PIM package contents which should be prepared by CONTRACTOR:

* Pre-Inspection Meeting Agenda.
* Final approved purchase order (un-priced).
* Suborder / Sub-vendors list; unpriced copy of suborders already issued with relevant acceptance by Sub-vendors.
* The approved material requisition.
* Production schedule (engineering, procurement, material availability, fabrication, testing, painting, packing).
* Approved drawings.
* The final approved specifications as a part of PO.
* Approved general arrangement and detail fabrication drawings / data sheets / calculations (\*).
* The approved manufacturing procedures (including heat treatment, painting, etc.,) (\*).
* The approved inspection and test plans (ITPs) (PMI, ferrite check, HIC/SSCC, hydro test, etc, as requested) (\*).
* NDT procedure and NDT operator’s qualifications.
* Inspection and testing procedures.
* PQP and applicable Quality procedures if any).
* Manufacturer / Vendor approved CV’s (for key personnel) with the organization chart.
* Technical clarifications / deviations (if any) as authorized / approved by COMPANY.
* Notification of the appointed Third-Party Inspection Agency (TPIA) and the approved CVs for assigned TPI personnel.

The following is a typical PIM agenda that should be followed by all parties involved:

* Introduction and objectives.
* Equipment or material involved.
* Review of purchase order and appendices to verify completeness and confirmation to contract specifications, procedure, drawings, etc.
* Review of exceptions or deviations to purchase order (if any).
* Raw material, sub vendors and manufacturing / testing locations.
* Review of vendor QMS.
* Verify the calibration certificates related to measurement and testing instruments.
* Review of Vendor project organization.
* Status of vendor procedures.
* Review of manufacturing procedures, specification, and qualification.
* Production schedule and inspection program.
* Traceability and certification.
* Inspection and testing.
* Third party inspection.
* Quality records.
* Review and final marking of the manufacturing quality plan (ITP).
* Inspection release and shipping release.
* Non-conformances procedure.
* Point of contacts and communication channels.
* Inspection notifications
* Manufacturing record book (MRB) requirements.
* Areas of concern.
* Any other business.
* Mill / shop tour.

This will be endorsed by CONTRACTOR PEM & PQM before issue to ADNOC Onshore.

(\*) those documents shall be in code 1 (approved without comments) by CONTRACTOR & ADNOC Onshore before PIM. Performing PIM with some of those documents in code 2 (approved with comments) shall be authorized by CONTRACTOR and ADNOC Onshore evaluating case by case, otherwise PIM shall be postponed until required approval level is met.

# MEETINGS

* 1. **Technical BID Clarification Meetings**

Meetings for Technical Bid Clarifications are required to be held in case of Vendor have unresolved/open query/clarifications. This meeting to be held with “preferred / selected Vendor” only, and can be held at CONTRACTOR office, as applicable. All clarifications and deviations shall have conclusion before PO placement.

* 1. **KICK-OFF Meeting**

This meeting shall be held at the CONTRACTOR’s office approximately within 2 weeks after the purchase commitment. The VENDOR shall be required to have as many qualified personnel available as is necessary to hold a successful meeting. The purpose of meeting is to ensure that VENDOR fully understands and complies with the purchase order documents. The agenda will be prepared by both parties, CONTRACTOR & VENDOR together.

* 1. **Attendance to Project Coordination Meetings**

All the necessary Project coordination and engineering meetings, have to be considered included in VENDOR’s scope.

# APPENDIX 1

TABLE OF COMPLIEANCE

The VENDOR shall confirm below the Sections of the Requisition / Specification that he has complied with / accepted or further clarifications are desired, or VENDOR has taken a deviation with reasons there to. Columns 2, 3, 4 must be answered and initiated.

| **1** | **2** | **3** | **4** |
| --- | --- | --- | --- |
| **Specification No.** | **1)Conforms**  **Yes / No** | **2)Deviations**  **Yes / No** | **@Clarification or Reasons**  **for Deviations** |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - Jebel Dhanna, Document No. P30312-03-99-40-1615 |  |  |  |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - MOT Fujairah, Document No. P30312-24-84-40- 1615 |  |  |  |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - IPS Sweihan, Document No. P30312-25-50-40- 1615 |  |  |  |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE)- MPS Habshan, Document No. P30312-30-50-40- 1615 |  |  |  |
| Data Sheet for MOVS (TRIPLE OFFSET BUTTERFLY TYPE) - BVS, Document No. P30312-30-78-40- 1607 |  |  |  |
| Piping Material Specification, Document No.: P30312-30-99-12-0602 |  |  |  |
| Criticality Rating Procedure, Document No.: P30312-30-99-90-1602 |  |  |  |
| Control And Safety System Philosophy, Document No.: P30312-30-99-39-1607 |  |  |  |
| Specification for Emergency Shutdown Valves and on/ off Valves, Document No.: P30312-30-99-39-1606 |  |  |  |
| Instrument & Control Design Basis, Document No.: P30312-30-99-52-1601 |  |  |  |
| Specification For Field Instruments, Document No.: 30-99-39-1604 |  |  |  |
| Specification For Instrument Installation, Document No.: P30312-30-99-39-1609 |  |  |  |
| Specification for ON/OFF valves, Document No.: AGES-SP-04-005 |  |  |  |
| Contractors QAQC Requirement, Document No.: AGES-GL-13-001 |  |  |  |
| Positive Material Identification of Equipment and Piping, Document No.: AGES-GL-13-002 |  |  |  |
| Criticality Rating Specification, Document No.: AGES-SP-13-001 |  |  |  |
| Procurement Inspection and Certification Requirement in Projects, Document No.: AGES-SP-13-002 |  |  |  |
| Traceability of Shop & Field Piping Materials, Document No.: AGES-SP-13-003 |  |  |  |
| Material Selection Guidelines, Document No.: AGES-GL-07-001 |  |  |  |
| Fire and Gas Detection and Fire Protection system Philosophy, Document No.: AGES-PH-03-002 |  |  |  |
| Specification for Manual Piping and Pipeline Valves, Document No.: AGES-SP-09-003 |  |  |  |
| Specification For Electrical Actuators, Document No.: ES-30-99-39-0030 |  |  |  |
| Pipeline Pneumatic Hydraulic valve actuator specification, Document No.: AGES-SP-04-012 |  |  |  |
| Criticality Rating Specification, Document No.: AGES-SP-13-001 |  |  |  |
| Procurement Inspection & Cert. Req. in Projects, Document No.: AGES SP-13-002 |  |  |  |
| Passive Fire Protection Schedule, Document No.: 30-78-89-5604 |  |  |  |
| Clad Pipes, Fittings and Flanges Specification, Document No.: AGES-SP-09-015 |  |  |  |
| Painting & Coating Specification, Document No.: AGES-SP-07-004 |  |  |  |
| Requirement for Materials in Severe Service, Document No.: AGES-SP-07-003 |  |  |  |
| Engineering Procedure - Drawing Design and Numbering Systems, Document No. EP-30-99-90-0001 |  |  |  |
| Engineering Procedure - Preparation of Supplier's/Vendor's Engineering Drawings and Documents, Document No. EP-30-99-90-0024 |  |  |  |
| Guidelines For Submission of Electronic Documentation, Document No. EP-30-99-95-0006 |  |  |  |
| Guidelines - Projects Quality System Requirements, Document No. EP-30-99-00-8517 |  |  |  |
| AGES-GL-13-001 Contractors QAQC Requirement |  |  |  |
| Quality Management, Document No.  DEP 82.00.10.10-Gen. |  |  |  |

Notes:

1. Acceptance (i.e. yes) implies total compliance to the Specifications.
2. @ Provide additional explanatory sheets if required.

# APPENDIX 2

**VENDOR INSPECTION AND TEST PLAN FORMAT**

General Notes:

- Inspection And Test Plan (generic for bid) shall be submitted.

- Separate ITP shall be issued for each item (equipment).

- CR, IC, Type of certificate shall be indicated in all ITP'S.

Vendor shall consider the following cluases of Spec. # AGES-SP-13-002 while developing the ITP:

- Appendex A : The minimum inspection and testing activities.

- Section 15 : The minimum inspection and testing interventions concerned parties.

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# APPENDIX 3

**PRE-INSPECTION MEETIG AGENDA**

Vendor Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Equipment /Materials:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PO No: \_\_\_\_\_\_\_\_\_\_ Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_

1. Introduction and Objectives.
2. Equipment or material involved.
3. Review of Purchase Order (PO) and appendices to verify completeness and confirmation to contract specifications, procedure, drawings, etc.
4. Review of exceptions or deviations to purchase order (if any).
5. Raw materials, sub-vendors and manufacturing / testing locations.
6. Review of vendor QMS.
7. Verify the calibration certificates related to measurement and testing instruments.
8. Review of Vendor Project Organization.
9. Status of Vendor procedures.
10. Review of manufacturing procedures, specifications and qualification.
11. Production schedule and inspection program.
12. Traceability and Certification.
13. Inspection and Testing.
14. Third Party Inspection.
15. Quality Records.
16. Review and final marking of the manufacturing quality plan (ITP).
17. Inspection Release and Shipping Release.
18. Non-conformance procedure.
19. Point of contacts and communication channels.
20. Inspection notifications.
21. Manufacturing record book (MRB) requirements.
22. Areas of concerns.
23. Any other business.
24. Facility Tour.

# APPENDIX 4

**REQUEST FOR INSPECTION FORMAT**

A close-up of a form

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# APPENDIX 5

**TBE COMPLIANCE SHEET**

A white sheet with text and numbers

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# APPENDIX 6

**SPARE PARTS PROCEDURE**

(SPIR FORM AND GUIDELINE TO FILL SPIR FORM)

# INTRODUCTION

This procedure is intended to assist CONTRACTOR in the process of completing eSPIR for capturing details of equipment and also spare parts interchangeability record (SPIR) for use by COMPANY’s various departments.

COMPANY have developed eSPIR (Electronic forms) and the system is Web enabled. Access to the system will be provided to individuals, CONTRACTORS & VENDORS by COMPANY, as needed.

COMPANY will use the eSPIR for capturing equipment and spare parts details for analysis and stocking of items of EPC Projects.

The Information is required on these forms for all Equipment & Spares where applicable, and system is used by COMPANY’s various user departments.

## **Purpose**

This Procedure defines the scope, requirements and responsibilities of VENDOR and CONTRACTOR to ensure successful completion of the eSPIR forms. This Procedure applies to all permanent equipment, materials used on the project irrespective of whether OPERATING SPARES are required or not. This procedure is applicable to all VENDORS (including SUB-CONTRACTORS) involved in the Project.

# CONTRACTOR RESPONSIBILITY

CONTRACTOR is given login name & password and required to define list of accepted VENDORS against the project.

**1.0 INTRODUCTION**

## **Develop a Control and Monitoring Mechanism of eSPIR procedure including planning and reporting to COMPANY.**

* CONTRACTOR shall submit to COMPANY the eSPIR procedure, schedule of submission of eSPIRs with the packages for which Equipment Data shall be submitted to COMPANY.
* CONTRACTOR shall report to COMPANY the complete status of Equipment Data submissions detailing the status by equipment tag number within Requisition and within Purchase Order and eSPIR status report. These data are to be reviewed and approved by Operations / Maintenance.
* CONTRACTOR shall provide the Equipment Data for all the Equipment, irrelevant of the OPERATING SPARES requirement as per Project P&ID.
* CONTRACTOR shall provide the eSPIRs for Bulk Materials (as applicable).
* CONTRACTOR shall provide the eSPIRs for BOUGHT OUT ITEMS (if applicable).
* CONTRACTOR shall provide priced PO of INSURANCE & OPERATING SPARES of all equipment.

## **Preparation (pre-processing) of Location Hierarchy prior to issue to VENDOR**

* Creation of new locations in the eSPIR hierarchy for new project as per Project Process & Instrument Diagrams (P&ID). At this stage, creation of locations requires data entry of Equipment Tag No., as per Project P&ID & Equipment Description as per each Main Equipment Purchase Order. All the Equipment which are categorised as “Maintainable”, for creation of eSPIR, are to be identified at this stage. These data related to locations & Tags, are to be reviewed and approved by Operations / Maintenance.

## **Issue of eSPIR access with instructions to VENDOR and Monitoring of progress**

* Issuance of eSPIR access to the VENDOR with instructions.
* Monitor VENDOR progress on creation (Data entry in eSPIR) of Equipment Sub-Assemblies and Spares proposal where applicable.

## **Receipt and verification for completeness and accuracy of eSPIR package from VENDOR**

* For VENDOR submitted eSPIRs, verify and confirm Equipment, Sub-Assemblies, & Spares Details and Specifications provided by VENDOR for correctness & completeness.
* To ensure all the eSPIRs are attached with relevant linked / supporting documents such as Equipment Cross Section Drawings, Component / Part drawings, Parts Lists, Data Sheets, User Manuals, Maintenance Manuals, Product Catalogues, MSDS, etc.
* Take necessary actions with vendor to complete eSPIR in case of missing data or documents.
* Follow-Up, receive, & compile eSPIR documents with all Data Sheets, drawings, manuals and related documents for correctness & completeness.
* Evaluate on VENDOR proposal for Spares and relevant quantities, propose adequate quantities, and seek clarification if required.

## **Transmittal of completed eSPIR package(s) to COMPANY**

* When eSPIR evaluation and documents compilation is complete, CONTRACTOR to release eSPIR in system to COMPANY, and also forward document package to COMPANY for review.

## **Resolving the clarifications to the satisfaction of COMPANY**

* Resolve and provide clarifications for all technical and commercial queries raised by COMPANY.

# VENDOR RESPONSIBILITY THROUGH CONTRACTOR

Each VENDOR, selected by the CONTRACTOR and accepted by COMPANY, will be assigned with new user name and password by COMPANY.

VENDOR will create eSPIR, with details for both Equipment and Spares. When an eSPIR is ready, VENDOR will release the same to CONTRACTOR for review, comments and revisions:

VENDOR shall perform the following activities:

* Receive Purchase Order from CONTRACTOR for the required equipment.
* Create eSPIR details, such as eSPIR Number, Description, Main P.O. No. & Revision, Addresses & Contacts for both Equipment manufacturers and Equipment manufacturer’s local agent in Abu Dhabi, etc as per guidelines provided hereunder.
* Original Components and Spares manufacturers should be clearly identified with their original manufacturers and manufacturer Part nos.
* Create Equipment & sub-Assemblies as per the Purchase Order in eSPIR and enter equipment general details, which include Description, Model, Type, Serial No. & Tag No., which is already created by CONTRACTOR.
* Add Spares for the created Equipment & sub-assemblies and enter Spares data such as Description, Original Manufacturer & Manufacturer Part No., UOM, Unit Price, Quantity proposed for normal operation etc.
* VENDOR’s quotations for operating spares shall be valid for acceptance by COMPANY up to two (2) years from the date of submittal of acceptable eSPIR. VENDORS shall also provide an escalation formula for a period of five (5) years beyond the initial validity period of two (2) years.
* After completing the jobs in all respects, release eSPIR to CONTRACTOR along with complete SPIR package to check for correctness & completeness.
* All proposed Spares with their manufacturer Part Nos. & Material Specifications, should be clearly identified on the supplied assembly drawings, manuals, etc.
* Coordinate with CONTRACTOR to provide necessary information or documents required to complete ESPIR in case of missing data.
* Coordinate with CONTRACTOR to resolve and provide clarifications for all technical and commercial queries raised by COMPANY.
* Should any spares require special handling, preservation, or have a specific shelf life then this should be advised by Vendor during eSPIR processing and should be clearly referenced in the eSPIR comments.
* Advise Expected Time of Arrival (ETA) of spares and enhance delivery process based on COMPANY urgency / requirement.

VENDOR shall provide the Equipment Data for all the Equipment in eSPIR as per the equipment Purchase Orders placed irrelevant of the OPERATING SPARES requirement as per Project.

