Engineering Specification



Supplier Quality Requirements

4WGN-20001

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Complete Revision: EPS-01132372

1. PURPOSE

1.1 This global engineering specification defined Air Products requirements for Supplier's quality control, inspection and associated documents.

2. SCOPE

2.1 This specification applies to all equipment and materials procured for Sale of Gas (SOG), Sale of Equipment (SOE) and inter-company projects managed by GEM.

3. RELATED INFORMATION

<u>4WGN-20002</u> Material Requirements

<u>4WGN-20001a</u> Pre-Inspection Meeting Agenda

<u>4WGN-20001b</u> Inspection Notification

About this document (for Air Products Internal Use Only)

Version history (for Air Products Internal Use Only)

4. **DEFINITIONS**

Hold Point (H) An inspection point to be attended by the Inspector that shall not be

passed without written authorization from Air Products. The Supplier shall formally notify Air Products of readiness for inspection and shall

expedite a response from Air Products regarding attendance.

Witness Point (W) An inspection point to be attended by the Inspector but where

fabrication/manufacturing may proceed if the Inspector fails to attend, providing the required notification period has been given. The Supplier shall formally notify Air Products of readiness for inspection and shall expedite a response from Air Products regarding

attendance.

Surveillance Point (S) An inspection point where the Inspector may attend. When

performed, the inspection would normally be performed in

conjunction with a Witness or Hold Point. The Supplier does not need

to formally notify Air Products regarding attendance.

Review Point (R) A review of documentation or certification, either pertinent to the

inspection activity or as a defined requirement in the Purchase Order. The Supplier does not need to formally notify Air Products

regarding attendance.

Inspector An Air Products or customer inspector who may be a full-time

employee or external agency inspector.

IRN Inspection Release Note

ITP Inspection & Test Plan

PIM Pre-Inspection Meeting

Supplier Any organisation on which Air Products has placed a Purchase Order

and any of its subcontractors

VDR Vendor Document Requirements

5. SPECIFICATION - QUALITY CONTROL & INSPECTION REQUIREMENTS

5.1 General Requirements

- **5.1.1** Air Products Quality Control, Inspection and Testing requirements are specified in the Air Products Purchase Order, referenced specifications and the Air Products Inspection & Test Plan (where issued). It is the responsibility of the Supplier to ensure all Air Products requirements are incorporated into their Inspection & Test Plan and associated procedures.
- **5.1.2** Air Products Quality Control is implemented by a program of source inspections performed at the Suppliers works or place of manufacture. Air Products inspection intervention points are identified on the Air Products Inspection & Test Plan which, when required, is issued with the Purchase Order. Inspection are performed by Air Products Inspectors under the direction of the Project Source Inspection Lead.
- **5.1.3** The Supplier is responsible to provide sufficient quality assurance and quality control to ensure the equipment and/or material supplied fully meets the requirements defined in the Purchase Order, referenced specifications, applicable Codes & Standards and the statutory requirements in the country of use.
- **5.1.4** Inspection by Air Products or the customer shall not be regarded as a substitute for inspection by the Supplier.
- **5.1.5** All measuring equipment used in manufacture and testing shall be subject to a controlled calibration system. If applicable, calibration and maintenance shall be as specified in the pertinent industry standards.
- **5.1.6** During each inspection visit, the Supplier shall ensure the test records and certification for the preceding Review and/or Surveillance Points on the applicable Inspection & Test Plan are offered to the Air Products Inspector for review.

5.2 Material Certification

- **5.2.1** Material certification shall meet all necessary statutory/code requirements of the country of use.
- Material certification and country of origin requirements shall be in accordance with Global Engineering Specification <u>4WGN-20002</u> "Material Requirements". If material re-testing is required, the traceability and identification of the test piece shall be a Witness Point for Air Products.
- **5.2.3** Manufacturing shall not proceed passed an inspection review point until the associated inspection records have been reviewed and accepted by the Supplier. Such inspection records shall be readily available for Air Products review upon request.

5.3 Inspection & Test Plans

- **5.3.1** When inspection by Air Products is required, the applicable Air Products Inspection & Test Plan (ITP) shall be issued with the Purchase Order.
- **5.3.2** When the Supplier ITP is listed as a deliverable on the VDR, the Supplier ITP shall include the following information as a minimum:
 - Inspection Activities listed in sequential order
 - Control Procedure (The Suppliers Procedure which explains how the inspection or test will be conducted)
 - Acceptance Criteria (The applicable Code, Standard or Project Specification requirements to be met)
 - Verifying Document (The document produced by the Supplier to verify the inspection activity has been completed)
 - Inspection intervention points for each party (Sub-Supplier, Supplier, Air Products, Client, End User)
- **5.3.3** The Supplier ITP shall include all inspection and testing activities required by the AP Products ITP and the applicable Codes, Standards and Specifications.

5.4 Pre-Inspection Meetings

- **5.4.1** Where required by the Purchase Order or applicable ITP, a Pre-Inspection Meeting (PIM) shall, be held at the primary place of manufacture. The PIM shall be chaired by the Air Products Source Inspection Lead and shall follow the Air Products PIM Agenda (Appendix A).
- **5.4.2** Prior to the PIM taking place, the Suppliers ITP (where required) shall be at least approved with comments by Air Products. At the end of the PIM, the Minutes of Meeting shall be reviewed, agreed and endorsed by all parties.

5.5 Inspection Notifications

- **5.5.1** Air Products requires Suppliers to provide a minimum of ten working days notification of inspection, based on a five day working week, for all Witness and Hold Points. Inspections shall not be offered on Saturdays or Sundays except by prior written agreement.
- **5.5.2** When there are AP Client Hold or Witness Points, the Supplier shall provide a minimum of twelve working days notice of all such inspections.
- **5.5.3** For all Air Products and/or Client Hold and Witness Points, the Supplier shall utilize the Air Products Inspection Notification template (Appendix B). This form shall be fully completed by the Supplier prior to submission to Air Products. A Microsoft Word version of the inspection notification template is available upon request.
- **5.5.4** All Inspection Notifications shall be submitted to the Air Products Inspection Mailbox appropriate to the location of inspection.

Inspection LocationInspection MailboxNorth AmericaAPAINSPE@airproducts.comChinaAPCINSP@airproducts.comIndiaAPIINSP@airproducts.comAll other regionsAPEINSP@airproducts.com

5.6 Inspection Waivers

5.6.1 Air Products Hold and Witness Points may only be considered as waived once Air Products has issued a documented Inspection Waiver form which has been signed by the Air Products Source Inspection Lead and the Air Products Functional Manager.

5.7 Non-Conformance Reports

- **5.7.1** All Non-Conformances identified by Air Products shall be documented on an Air Products Non-Conformance Report (NCR). The Supplier will be issued the NCR by the Air Products Source Inspection Lead and will be required to provide the following information:
 - Proposed Disposition
 - Root Cause
 - Correction
 - Corrective Action
 - Target Closure Date
- **5.7.2** Rework or repair shall only commence once the proposed correction has been approved by Air Products. After the rework or repair is completed, the item shall be subject to re-inspection by Air Products.
- **5.7.3** The NCR may be closed by the originator after satisfactory re-inspection or when the approved disposition is 'Use-As-Is'.
- **5.7.4** All Supplier Non-Conformance Reports related to the equipment or material being supplied to Air Products shall be provided upon request.
- **5.7.5** Equipment / material shall not be released for shipment or delivered by the Supplier until all associated Non-Conformance Reports (NCR's) are closed.

5.8 Inspection Release Notes

5.8.1 Equipment and/or material subject to inspection by Air Products shall not be released for shipment or delivered by the Supplier until Air Products has issued an Inspection Release Note signed by the Air Products Project Source Inspection Lead.