***Instrumentation Installation Verification Procedure:***

***HOW TO USE THIS DOCUMENT:***

**1) Description of Test**

The objective of the test is twofold:

1. To verify that all direct impact instruments are of the correct specification as per the detailed instrument data sheets
2. To verify that all direct impact instruments components are installed and configured correctly as per the functional illustration on the P&ID.

**2) Linkage to Requirements Challenged**

URS refers to major P&ID components. The system P&ID details all necessary process instrumentation: confirm correct installation and specification of direct impact instrument components.

**3) Acceptance Criteria**

All direct impact instruments are of the correct specification, are functionally installed and configured as per the P&ID, the vendor handover documentation is complete, and appropriate material, calibration and loop-check certification is available.

**4) Prerequisites and/or Assumptions**

1. All commissioning activities are complete and commissioning punch-list items are closed out.
2. All testers shall be trained and educated in the test method listed in section-5 below: it is crucial to the success of the testing effort that the testing process be well understood by all participants.

**5) Test Method**

1. On Part-1 of the instrument GMP test sheets confirm the instrument description and critical design features. Inspect the installed instrument item in the field and while referencing the vendor’s documentation package verify conformance:
* Manufacturer
* Calibrated Range
* MOC
* Loop Checked
1. On Part-2 of the instrument GMP test sheets confirm that the appropriate vendor documentation is available in accordance with the following:
* Vendor handover package is in place
* Material Certification is available for wetted parts
* Calibration Certification is available
* Loop Checksheet is available (Yes/No)
1. In the field visually confirm, on Part-3 of the instrument GMP test sheets confirm, the following:
* Instrument item is installed as per P&ID, is securely fitted and is free from damage
* Instrument and cabling is correctly tagged and details conform to the design specification
* Instrument orientated correctly and is accessible for calibration and maintenance

**6) Expected Results and Actual results**

1. In the instrument verification forms, reach a conclusion as to whether each test step has been successfully completed by transcribing bold text from the ‘Expected Results’ column into the corresponding ‘Actual Results’ field where appropriate.
2. Assess each step listed and determine whether the step has passed or failed.
3. The person performing the test should be identified and the date the testing was performed should be recorded.
4. At the bottom of the test script a validation peer (other than the person performing the test) shall review the script post execution.
5. Quality Assurance (QA) shall approve the completed test.

**Instrumentation Installation Verification and Validation Protocol GMP Checksheet**

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| **Sheet \_\_ of \_\_** | **\_\_\_ Installation Verification** |  |
| ***Part-1: \_\_\_ Transmitter Description and Critical Design Features*** |
| *Inspect the installed instrument item and the vendor’s documentation and verify correct specification conformance* |
| **Tag #** | **Specified Manufacturer** | **Actual** | **Specified Range** | **Actual** | **Specified MOC** | **Actual** | **Loop Checked****(Yes/No)** | **Verification****(Pass/Fail)** | **Initials / Date** |
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|  | **Comments:** |  |
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|  | **Validation Peer Review** |  |  |  |  |  |
|  | Print Name |  | Signature |  | Date |  |

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|  | **QA Approval** |  |  |  |  |  |
|  | Print Name |  | Signature |  | Date |  |