***Piping Installation Verification Procedure:***

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

**1) Description of Test**

The objective of the test is to verify all direct impact pipes are installed and orientated correctly as per the functional illustration on the P&ID and piping Isometrics.

**2) Linkage to Requirements Challenged**

Confirm correct installation and orientation of direct impact piping as per the P&ID schematic illustration and piping isometrics.

**3) Acceptance Criteria**

All direct impact components are functionally installed and orientated correctly as per the P&ID’s and isometrics’ specifications.

**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. Pre-populate the piping verification with the Tag # and material-of-construction (MOC) details.
2. In the field enter the details of the weld log for every each pipe Tag #.
3. Confirm the Weld Log is complete, as the Weld Log collates material-of-construction certificates and weld inspection certificates.
4. In the field record the details of the Pressure Test Pack for every each pipe Tag #.
5. Confirm the Pressure Test is complete verifying the absence of leaks
6. In the field enter the details of the Construction Dossier for every each pipe Tag #.
7. Confirm all slopes have been checked and verified as correct from the Construction Dossier.

**6) Expected Results and Actual results**

1. In the IQ GMP test-sheet(s) overleaf, 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.
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.

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

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| **Sheet \_\_ of \_\_** | **Piping Installation Verification** |  |
| **Tag #** | **MOC** | **\*Weld Log****#** | **\*Weld Log Complete****(Yes/No)** | **Pressure Test Pack-#** | **Pressure Test Complete (Yes/No)** | **Construction Dossier #** | **\*\*Slopes Checked****(Yes/No)** | **Verification****(Pass/Fail)** | **Initials / Date** |
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| \*Weld Log collates material-of-construction certificates and weld inspection certificates | \*\*Construction Dossier collates slope-check documentation |

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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 |  |