

# Installation and Operational Qualification Protocol

(Reference: SOP \_\_\_\_\_)

<b>Project Name</b>		<b>Project Number</b>	
<b>Equipment</b>		<b>Serial Number</b>	
<b>Manufacturer</b>		<b>Model Number</b>	
<b>Process Line/Location</b>		<b>Protocol number</b>	

	<b>WRITTEN BY:</b>	<b>REVIEWED BY:</b>
<b>Name:</b>		
<b>Position</b>		
<b>Signature:</b>		
<b>Date:</b>		

	<b>APPROVAL TO EXECUTE:</b>		
<b>Name:</b>			
<b>Position:</b>			
<b>Signature:</b>			
<b>Date:</b>			

	<b>PROTOCOL COMPLETION APPROVAL:</b>		
<b>Name:</b>			
<b>Position:</b>			
<b>Signature:</b>			
<b>Date:</b>			

**1 OBJECTIVE**

The objective of this protocol is to define the Installation Qualification (IQ) and Operational Qualification (OQ) requirements and acceptance criteria for the [insert system name and plant number] which will be located in the [insert area, packaging or manufacturing] at site [insert site name]. IQ/OQ is required as [insert brief description as to why required, e.g. as it is new equipment].

Successful completion of this protocol will provide a high degree of assurance that the equipment has been installed and operates in accordance with the site requirements, specifications and manufacturers recommendations and is in compliance with cGMP and site policies.

# Installation and Operational Qualification Protocol

(Reference: SOP \_\_\_\_\_)

**Appendix [Insert Appendix No]**

**Test 001: Verification of Installed Equipment**

<b>1. Objective</b>
<p>The objective of this test is:</p> <ol style="list-style-type: none"> <li>1. To verify that equipment is uniquely identified and installed in accordance with site and manufacturers' recommendations</li> <li>2. To verify that equipment is scheduled for preventative maintenance</li> <li>3. To ensure that the equipment installed is documented for change control / revalidation purposes</li> </ol>
<b>2. Procedure</b>
<p>Inspect the installed equipment and record details of all major process equipment as required below. Verification of installed components may be achieved by visual inspection or approved documentation / drawings. If a document or drawing is used it must be referenced.</p>
<b>3. Acceptance Criteria</b>
<p>All equipment must be uniquely identified and installed in accordance with site and manufacturers' recommendations. All major equipment items should be included for preventative maintenance</p>

Equipment Description	Installed	Initial & Date
<p>[Insert Equipment Name. If sub-systems include one row for each sub system]</p>	Manufacturer	
	Model	
	Serial number	
	Plant No	
	Maintenance log No	
<p>[Insert Equipment Name. If sub-systems include one row for each sub system]</p>	Manufacturer	
	Model	
	Serial number	
	Plant No	
	Maintenance log No	

Comments:

<p>All Acceptance Criteria Met (yes/no): _____          Report all deviations/further actions in Appendix [insert Deviation appendix no]          ( Deviation ref _____ )</p>	<p>Initial/Date</p>
<p><b>Reviewed By:</b></p>	<p>Page 5 of 18</p> <p><b>Date:</b></p>

# Installation and Operational Qualification Protocol

(Reference: SOP \_\_\_\_\_)

## Appendix [Insert Appendix No]

### Test 005: Verification of Computer System Software

<b>1. Objective</b>
<p>The objective of this test is:</p> <ol style="list-style-type: none"> <li>1. To verify that all computer system Operating Software and Application Software integrated with the system is uniquely identified and installed in accordance with site and manufacturers' recommendations.</li> <li>2. To ensure that the software components of the installation are documented for change control/re-validation purposes.</li> </ol>
<b>2. Procedure</b>
<p>Inspect the installed software and record details. Verification of installed components may be achieved by visual inspection or approved documentation / drawings. If a document or drawing is used it must be referenced.</p>
<b>3. Acceptance Criteria</b>
<ol style="list-style-type: none"> <li>1. All software must be uniquely identified and installed in accordance with site and manufacturers' recommendations.</li> <li>2. A backup copy of the software must be available.</li> </ol>

Software Description	Installed	Initial & Date
<span style="color: blue;">[Insert system name]</span>	Operating Software name	
	Operating Software version	
	Application Software name	
	Application Software version	
	Application Software Developer	
	Location of backup	

Comments:

All Acceptance Criteria Met (yes/no): _____ Report all deviations/further actions in Appendix <span style="color: blue;">[insert Deviation appendix no]</span> ( Deviation ref _____ )	Initial/Date
<b>Reviewed By:</b>	Page 9 of 18 <b>Date:</b>

## Installation and Operational Qualification Protocol

(Reference: SOP \_\_\_\_\_)

**Appendix [Insert Appendix No]**

**Test Ref: 010: Verification of Safety**

<b>1. Objective</b>
The objective of this test is to verify that EHS are notified that qualification of the system is being undertaken and a safety audit if required can be performed.
<b>2. Procedure</b>
Contact the EHS representative and determine if a safety audit is required prior to performing any OQ testing. If required, enter the estimated completion date for the audit. It is the responsibility of EHS to complete this test and to ensure that the equipment is safe for operational qualification and for use.
<b>3. Acceptance Criteria</b>
The need for a safety audit has been established prior to OQ and if required a safety audit has been conducted by EHS and the equipment is deemed suitable for routine use.

Test #	Test Procedure	Actual	Initial & Date
1	Determine if a safety audit is required	Audit required? _____	
2	Enter the estimated completion date for the safety audit if required		
3	Document if the system is considered safe for operational qualification		

Comments:

All Acceptance Criteria Met (yes/no): _____ Report all deviations/further actions in Appendix [insert Deviation appendix no] ( Deviation ref _____ )	Initial/Date
<b>Reviewed By:</b>	Page 14 of 18  <b>Date:</b>

# Installation and Operational Qualification Protocol

(Reference: SOP \_\_\_\_\_)

**APPENDIX [Insert Appendix No] – DEVIATION LOG AND REPORT**

<b>DEVIATION REPORT NO.:</b>							
<b>TEST SCRIPT / TEST PROCEDURE #:</b>							
<p>1. <b>DEVIATION DESCRIPTION:</b></p>							
						<b>Initial / Date</b> _____	
<i>Circle Classification</i>	Critical Deviation	Non-Critical Deviation	<i>Circle Change Required</i>	Yes Change # _____	No	Deviation # _____	COMMITMENT # _____
<p>2. <b>RESOLUTION (attach any re-test results to this sheet):</b></p>							
						<b>Resolution Completed &amp; Deviation Resolved: (yes/no) _____ Initial / Date</b> _____	
<p>3. <b>JUSTIFICATION FOR ACCEPTANCE OF DEVIATION:</b></p>							
						<b>Justification Completed &amp; Deviation Accepted: (yes/no) _____ Initial / Date</b> _____	
	<b>Print/Type Name</b>		<b>Signature</b>			<b>Date</b>	
<b>Approved By: (System Owner)</b>							
<b>Approved By: (Validation)</b>							
<b>Approved By: (Quality Assurance)</b>							