



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

OPERATIONAL QUALIFICATION

FOR

COMPUTER SYSTEM

OF

FTIR

| System Name | FTIR |
|----------------|----------------|
| System ID | |
| Location | Instrument Lab |
| Effective Date | |

Document No.:

Page 1 of 34



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

TABLE OF CONTENT

| 1. | PRE APPROVALS | |
|----------|--|-----|
| 2. | SIGNATURE OF EXECUTOR | |
| 3. | REVISION HISTORY | |
| 4. - | OBJECTIVE | |
| 5. 6. | SCOPE SYSTEM DESCRIPTION | |
| 0. 7. | ROLE AND RESPONSIBILITY | |
| 8. | REFERENCES | |
| 9. | DOCUMENTATION PROCEDURE | 8 |
| | QUALIFICATION COMPLETION AND APPROVAL | |
| 11. | ACCEPTANCE CRITERIA | 8 |
| | OPERATIONAL VERIFICATION TEST | |
| 12 | .1 Verification of Field Instruments Calibration | |
| 12 | .2 Verification of Windows Security | 1 |
| 12 | .3 Verification of System Start-up & Shutdown | 2 |
| 12 | .4 Verification of Password Security | 4 |
| 12 | .5 Verification of User access and security features of the system | 5 |
| 12 | .6 Verification of Application software Screens | 6 |
| 12 | .7 Verification of System Response Failure | 7 |
| 12 | .8 Verification of Electronic Data Security | 8 |
| 12 | .9 Verification of Audit Trail | 20 |
| 12 | .10 Verification of Report Generation | 21 |
| 12 | .11 Verification of User Prevented From Alternating Date and Time | 22 |
| 12 | .12 Verification of Data Back Up | 23 |
| 12 | .13 Verification of system software as per 21 CFR part 11 Clauses | 24 |
| | OPERATIONAL QUALIFICATION TEST STATUS2 | |
| 14. | DISCREPANCIES HANDLING DURING COMPUTER QUALIFICATION | \$0 |
| | DISCREPANCY AND CORRECTIVE ACTION FORM | |
| | ABBREVIATION | |
| | OPERATIONAL QUALIFICATION SUMMARY & CONCLUSION | |
| | POST APPROVALS | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

1. PRE-APPROVALS:

The signature listed below indicates the pre-approval of this operational qualification. This approval is joint responsibility of listed functional areas.

| | DOCUMENT DEVELOPMENT | SIGN / DATE |
|-------------|----------------------|-------------|
| Name | : | |
| Designation | : | |

| DOCUMENT REVIEW AND APPROVAL (M/S) | | | |
|------------------------------------|-----------------|--|--|
| Sign / Date | • | | |
| Name | : | | |
| Designation | : | | |
| | Engineering | | |
| Sign / Date | • | | |
| Name | : | | |
| Designation | : | | |
| | IT | | |
| Sign / Date | • | | |
| Name | : | | |
| Designation | : | | |
| | Quality Control | | |

| DOCUMENT AUTHORIZATION (M/S) | | | |
|------------------------------|-------------------|--|--|
| Sign / Date | : | | |
| Name | : | | |
| Designation | : | | |
| | Quality Assurance | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

2. SIGNATURE OF EXECUTOR:

All the executer involved in this document have to sign within prescribed format given below.

M/s

| Name | Designation | Signature | Initial | Date |
|------|-------------|-----------|---------|------|
| | | | | |
| | | | | |

M/s

| Name | Designation | Signature | Initial | Date |
|------|-------------|-----------|---------|------|
| | | | | |
| | | | | |
| | | | | |

3. REVISION HISTORY:

| Date | Supersedes | Reason for Revision |
|------|------------|---------------------|
| | | |
| | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

4. OBJECTIVE:

The objective of the system requirement specification defines the requirements of hardware software, functions and documentation for the Computer System (FTIR) installed at M/s. This document will be cross-referenced with the relevant system specification to ensure that the system specifications have been met according to M/s. requirements.

5. SCOPE:

This document is applicable to validation of Hardware and Software of computer system installed at M/s. Quality control department. This system requirement specification shall define the documentation, references and acceptance criteria to establish that the validation of Hardware and Software of Computer system after modification is installed in accordance with the guidelines laid down by the manufacturer of the system.

6. SYSTEM DESCRIPTION:

Computer system of FTIR defines the controlling of analytical instrument connected to the system. It controlled the process of instrument connected to it by the software installed in the CS. The operator interface is carried out by CS screen. The CS is used to feed required parameters and set points in the system during operation. The system is connected to data server for printing and data backup. The system is secured by IT through password only within the system.



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

7. ROLE AND RESPONSIBILITY:

The validation team comprising of representative from each of the following departments should be responsible for overall compliance with this validation plan.

| Department | Responsibilities | | | | |
|-----------------|--|--|--|--|--|
| Validation | To collect the necessary data for operational qualification activities. | | | | |
| Agency () | > To prepare and execute the operational qualification in coordination with | | | | |
| () | engineering, validation and quality assurance team. | | | | |
| | Comply with regulatory / Guidelines / Standards / validation plan requirements | | | | |
| | throughout the validation life cycle. | | | | |
| | > To submit operational qualification for approval. | | | | |
| Engineering | > To provide the necessary data for operational qualification activities. | | | | |
| (M/s) | > To review the operational qualification. | | | | |
| IT | > To provide the necessary data for operational qualification activities. | | | | |
| (M /s) | > To review the operational qualification. | | | | |
| Quality Control | > To provide the necessary data for operational qualification activities. | | | | |
| (M/s.) | To review the operational qualification. | | | | |
| | 1 • • • • 1 • • • • • | | | | |
| Quality | | | | | |
| Assurance | To approve and authorized the operational qualification. | | | | |
| (M/s) | | | | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

8. REFERENCES:

The publication listed below form part of this reference documents. Each publication shall have latest revision in effect on the date of this document is approved for execution.

| | Good Automated Manufacturing Practices, Version 5, Guideline | | |
|------------------------------------|--|--|--|
| GAMP 5 | Document for Automated Systems from International Society of | | |
| | Pharmaceutical Engineering | | |
| 21 Code of Federal | Current Good Manufacturing Practice in Manufacturing, | | |
| Regulations (CFR), Part 210 | Processing, Packing, or Holding off Drugs; General | | |
| 21 Code of Federal | Current Good Manufacturing Practice for finished Pharmacauticals | | |
| Regulations (CFR), Part 211 | Current Good Manufacturing Practice for finished Pharmaceuticals | | |
| 21 Code of Federal | 21 Code of Federal Regulations (CFR), Part 11 | | |
| | Electronic Records, Electronic Signatures, Final Rule Electronic | | |
| Regulations (CFR), Part 11 | Submissions; Establishment of Public Docket, Notice | | |
| ІСН Q9 | International Conference of Harmonization (ICH) quality risk | | |
| | assessment Q9 | | |
| FUCMD | Laying down the principles and guidelines of GMP in respect of | | |
| EU GMP | medicinal products for human use. | | |
| WHO | Appendix 5, validation of computerized systems. | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

9. DOCUMENTATION PROCEDURE:

- Qualification activities will be performed as defined in the approved document.
- All documentation will be completed during the execution of the qualification.
- Recording of information will be made in permanent ink.
- Fill out complete information in the verification table provided.
- Do not keep any space blank. Mark blank space with a single line throughout the appropriate space with mentioning NA (Not Applicable) and put initial and date.
- Correct the mistakes by drawing a single line through the incorrect data, recording the correct information and then initial sign and date the change.

10. QUALIFICATION COMPLETION AND APPROVAL:

- Verify that all tests required by qualification are completed and attached.
- Verify that all amendments and discrepancies are documented, approved and attached.
- If all items in the qualification for the Computer System Based system (FTIR) have been reviewed and found to be acceptable, sign the corresponding block in the qualification completion and approval form.

11. ACCEPTANCE CRITERIA:

- Installation completion as per manufacturer's recommendations & cGMP requirements.
- Installation of major components as per the design specifications.
- The supply of all necessary documentation from manufacturer.
- The system is operating as intended and is under state of control.
- Operational features meet system requirements and system specifications.



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12. OPERATIONAL VERIFICATION TEST:

12.1 Verification of Field Instruments Calibration

| Objective | : | To verify the field instruments calibration. | | |
|----------------|---|--|--|--|
| Tools Required | : | Not Applicable | | |
| Procedure | : | 1. Verify Instruments Name. | | |
| | | 2. Verify Instruments ID. | | |
| | | 3. Verify Instruments Calibration Date. | | |
| | | 4. Verify Instruments Calibration Due Date. | | |
| Acceptance | : | Fields instruments should be calibrated. | | |
| Criteria | | | | |

Verification Table:

| Instruments Name | Instruments ID | Calibration Done On | Calibration Due On | Verified (Yes/No) | Discrepancy? (Y/N) |
|------------------|----------------|------------------------|-----------------------|----------------------|-----------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

| System Name: FTIR | | System ID: | |
|--------------------------------|---------|------------|------------------------------|
| Remarks: | | | |
| | | | |
| Meet the acceptance Criteria [|] Yes [|] No | Reference Attachment No. [] |
| Checked by : | | | Date: |
| Verified by : | | | Date: |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.2 Verification of Windows Security:

| Objective | : | To verify the Windows security as defined. |
|------------------------|---|---|
| Tools Required | : | Not Applicable |
| Procedure | : | 1. Check all the test given in verification table. |
| | | 2. Record the result in verification table. |
| Acceptance Criteria | : | All the test result shall match with expected result. |

Verification Table:

| Description | Specified | Actual result (Yes/No) | Discrepancy? (Y/N) |
|----------------------------|-----------------------|---------------------------|-----------------------|
| Login to PC with blank | Access Denied & Error | | |
| password. | message displayed. | | |
| Login to PC with incorrect | Access Denied & Error | | |
| password. | message displayed. | | |
| Login to PC with correct | Access granted | | |
| password. | Access granieu | | |

Remarks:

| Meet the acceptance Criteria [|] Yes [|] No | Reference Attachment No. [] |
|--------------------------------|---------|------|------------------------------|
| Checked by : | | | Date : |
| Verified by : | | | Date: |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.3 Verification of System Start-up & Shutdown:

| Objective | : | To verify the system healthiness through start up and shutdown procedure. |
|----------------|---|---|
| Tools Required | : | Not Applicable |
| Procedure | : | 1. Switch ON System Power Supply. |
| | | 2. Startup time should be minimum and during this time PC cannot |
| | | generate any error message. |
| | | 3. System safe shutdown with Application. |
| Acceptance | : | 1. System start and shutdown should as per procedure defined in test data |
| Criteria | | table. |
| | | 2. Application software without any error. |

Verification Table for Startup and Shut down Process:

| Description | Procedure | Expected Result | Actual Result (Yes/No) | Discrepancy? (Y/N) |
|----------------------------|--|--|---------------------------|-----------------------|
| To start up the system | Turn On the Power Supply of System | System should be turn on no error message displaye on screen | | |
| Login to system | Click on application software to run the software | Application software run automatically without any error | | |
| To Shut Down the System | Exit from the software & click on shut down | Shut down the PC | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

| System Name: FTIR | | System ID: | |
|--------------------------------|---------|------------|------------------------|
| Remarks: | | | |
| | | | |
| | | | |
| Meet the acceptance Criteria [|] Yes [|] No | Refer Attachment No. [|
| Checked by : | | | Date : |
| Verified by : | | | Date: |
| | | | |

]



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.4 Verification of Password Security:

| Objective | : | To verify the password security as defined. |
|------------------------|---|---|
| Tools Required | : | Not Applicable |
| Procedure | : | 1. Check all the test given in verification table. |
| | | 2. Record the result in verification table. |
| Acceptance Criteria | : | All the test result shall match with expected result. |

Verification Table:

| Description | Specified | Verified (Yes/No) | Discrepancy? (Y/N) |
|---|--|----------------------|-----------------------|
| Minimum password length | Password should be minimum 6 characters. | | |
| Password Expiry Days | The password shall expire after 90 days. | | |
| Password Complexity | Password should be combinations of upper case letters, lower case letters, numbers and special characters. | | |
| Wrong Password Entry | System shall be Generate the popup. | | |
| Wrong User Name & Password Entry at Admin Level | System shall be Generate the wrong password or user name popup | | |
| Correct User & Password Entry at Admin Level | Admin login the system successfully. | | |

Remarks:



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.5 Verification of User access and security features of the system:

| Objective | : | To verify the user access and security features of the system as defined. |
|------------------------|---|---|
| Tools Required | : | Not Applicable |
| Procedure | : | 1. Verification of User level |
| | | 2. Login with each level and check all rights/screen. |
| | | 3. Record the result with privileges in test verification table. |
| Acceptance Criteria | : | All the result shall match with user rights/screen and level. |

Verification Table for User Rights

| Rights/ screen | Analyst Level | Reviwer Level | Admin Level | Verified (Yes/No) | Discrepancy? (Y/N) |
|-------------------------|------------------|------------------|----------------|----------------------|--------------------|
| Login Screen | () | () | () | | |
| PerkinElmer spectrum ES | () | () | () | | |
| Setup | () | () | () | | |
| Spectral libraries | () | () | () | | |
| Equation | () | () | () | | |

Remarks:

Meet the acceptance Criteria [] Yes [] No

Checked by :_____

Verified by : _____

Date:_____

Date:_____



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.6 Verification of Application software Screens:

| Objective | : | To verify the Software screens as defined. |
|------------------------|---|---|
| Tools Required | : | Not Applicable |
| Procedure | : | 1. Check all the test given in verification table. |
| | | 2. Record the result in verification table. |
| Acceptance Criteria | : | All the test result shall match with expected result. |

Verification Table:

| Screen No | Specified Screen | Actual Screen as per Specified? (Yes/No) | Verified (Yes/No) | Discrepancy? (Y/N) |
|--------------|----------------------------|--|----------------------|-----------------------|
| 1. | Login Screen | Yes () / No () | | |
| 2. | PerkinElmer spectrum ES | Yes () / No () | | |
| 3. | Setup | Yes () / No () | | |
| 4. | Spectral libraries | Yes () / No () | | |
| 5. | Equation | Yes () / No () | | |

Remarks:

| Meet the acceptance Criteria [|] Yes [|] No | Reference Attachment No. [] |
|--------------------------------|---------|------|------------------------------|
| Checked by : | | | Date: |
| Verified by : | | | Date: |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.7 Verification of System Response Failure:

| Objective | : | To verify the system response failure as defined. | |
|------------------------|---|---|--|
| Tools Required | : | Not Applicable | |
| Procedure | : | 1. Operate the system in run mode. | |
| | | 2. If any hardware of Computer system goes to fail. | |
| | | 3. Record the result in verification table. | |
| Acceptance Criteria | : | All the test result shall match with expected result. | |

Verification Table:

| Description Specified | | Observation (Yes/No) | Discrepancy? (Y/N) |
|---|---|-------------------------|-----------------------|
| CPU Failure | CPU should be off and monitor cannot be response. | | |
| Monitor Failure | Monitor should be off and CPU Should Be On. | | |
| UPS Failure | UPS should be off and CPU and Monitor cannot response. | | |
| Communication cable failure between CPU and Monitor | Monitor should not be response. | | |
| Communication failure between CPU and Monitor | Monitor should not be response. | | |
| Communication failure with Local area network | Printing should be stop | | |
| Power Failure | UPS supply connected with System to safe shutdown. | | |

Remarks:

 Meet the acceptance Criteria [] Yes [] No

 Checked by :

 Verified by :

 Date:

Document No.:

Page 17 of 34



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.8 Verification of Electronic Data Security:

| Objective | : | To verify the electronic data security as defined. | |
|------------------------|---|---|--|
| Tools Required | : | Not Applicable | |
| Procedure | : | 1. Check all the test given in verification table. | |
| | | 2. Record the result in verification table. | |
| Acceptance Criteria | : | All the test result shall match with expected result. | |

Verification Table:

| Description | Specified | Observation (Yes/No) | Discrepancy? (Y/N) |
|--|--|-------------------------|-----------------------|
| Electronic Record Storage | All the electronic should be store in a correct manner and specified location. | | |
| Electronic Data Storage Path Accessbility | Only authorised user shall be access the elecronic storage data. | | |
| Access of any other file beside the primary system software | Only qualified and authorized user shall be access other file beside the primary system software. | | |
| Electronic Record Maintain | Electronic record should maintain in a redundent hard disk / IT server / DVD with specified location. | | |
| Print the entire content of electronic records Electronic Data Edition and Deletion | User should be print the entire content of electroic records. No editions and deletion possible in the Electronic Data. | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

| System Name: FTIR | System ID: |
|--|------------|
| Remarks: | |
| | |
| Meet the acceptance Criteria [] Yes [|] No |
| Checked by : | Date: |
| Verified by : | Date: |
| | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.9 Verification of Audit Trail:

| Objective | : | To verify the audit trail as defined. | |
|------------------------|---|---|--|
| Tools Required | : | Not Applicable | |
| Procedure | : | 1. Check all the test given in verification table. | |
| | | 2. Record the result in verification table. | |
| Acceptance Criteria | : | All the test result shall match with expected result. | |

Verification Table:

| Description Specified | | Observation (Yes/No) | Discrepancy? (Y/N) |
|--------------------------|--|-------------------------|-----------------------|
| Attempt to login account | Login Successful. The same is logged in | | |
| from authorised user | the audit trail automatically. | | |
| Attempt to login account | Login Fail. The same is logged in the | | |
| from unauthorised user | audit trail automatically. | | |
| New Account Creation | Audit trail should record the creation of | | |
| and Deletion | new account and deletion. | | |
| Deserve al Change | Change in the password shall be logged | | |
| Password Change | into the audit trail. | | |
| | Audit trail should have facility to logged | | |
| Audit Trail Content | the data with time, user identity, reason | | |
| | of change and type of change. | | |

Remarks:

Meet the acceptance Criteria [] Yes [] No Reference Attachment No. []

Checked by :_____

Date:_____

Verified by :_____

Date:_____

Document No.:

Page 20 of 34



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.10 Verification of Report Generation:

Objective:To verify the report generation and format as defined.Tools Required:Not ApplicableProcedure:Verify that the standard report and analytical report will generate.Acceptance:All the test result shall match with expected result.Criteria:

Verification Table:

| Description | Expected Result | Actual Result (Yes/No) | Discrepancy? (Y/N) |
|---------------------|-----------------------|---------------------------|--------------------|
| Report | Report shall not be | | |
| Edition/Deletion | edit/ delete by user | | |
| Date and Time stamp | Date and Time stamp | | |
| on Report during | on Report during | | |
| generation/Print | generation/Print. | | |
| Redable Formate | Report shall be in | | |
| Redable Formate | human readable format | | |

Remarks:

| Meet the acceptance Criteria [|] Yes [|] No | Reference Attachment No. [|
|--------------------------------|---------|------|----------------------------|
|--------------------------------|---------|------|----------------------------|

Checked by :_____

Verified by :

Date: _____

1

Date:



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.11 Verification of User Prevented From Alternating Date and Time:

- Objective
 : To verify the Verification of User Prevented from Alternating Date and Time as defined.

 Tools Required
 : Not Applicable
- Procedure : 1. Check all the test given in verification table.
 - 2. Record the result in verification table.
- Acceptance : User cannot change or alter the date and time of system.
- Criteria

Verification Table:

| User | Description | Observation | Discrepancy? (Y/N) |
|---------|--|-------------|--------------------|
| Analsyt | User access/ not access date & time | | |
| Reviwer | User access/ not access date & time | | |
| Admin | User access/ not access date & time | | |

Remarks:

| Meet the acceptance Criteria [|] Yes [|] No | Reference Attachment No. [] |
|--------------------------------|---------|------|------------------------------|
| Checked by : | | | Date: |

Verified by : _____

Date:_____

Page 22 of 34



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.12 Verification of Data Back Up:

| Objective | : | To verify the data backup as defined. |
|------------------------|---|--|
| Tools required | : | Not Applicable |
| Procedure | : | 1. Check all the test given in verification table. |
| | | 2. Record the result in verification table. |
| Acceptance Criteria | : | All the test result should match with expected result. |

Verification Table

| S.No. | Test | Expected Result | Actual Results (Yes/No) | Discrepancy? Y/N |
|-------|---|--|----------------------------|---------------------|
| 1. | Go to the following folder. "D:\ftir data\2024 | Data size, folder name should be noted. | | |
| 2. | Copy the same folder & paste in external storage device. Note the data size, files & folders. | Folder should be copied successfully & noted the Data size, folder name. | | |
| 3. | Compare the data size, files & folders of the same folder before & after data backup activity. | Data size, folder name of data should be matched. | | |

Remarks:

| | | | _ |
|---------|---------|----------------------------|-------|
|] Yes [|] No | Reference Attachment No. [|] |
| | | Date: | |
| | | Date: | |
| |] Yes [| | Date: |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

12.13 Verification of system software as per 21 CFR part 11 Clauses:

| Objective | y the software as per 21 CFR Part 11 clauses |
|------------------------|--|
| Tools Required | Applicable |
| Procedure | k and record of 21 CFR Part 11 clauses for software. |
| | Open the Software in normally. |
| | Login with higher level id and password. |
| | Verify all the points as per the test table clause wise & record |
| Acceptance Criteria | m should complies 21 CFR part 11. |

Verification Table:

| S.No. (As per clause) | Question | Testing procedure and requirement. | Actual Result | Discrepancy? (Y/N) |
|-----------------------------|-----------------------|------------------------------------|---------------|-----------------------|
| 11.10(a) | Is it possible to | Try to change the | | |
| | discern invalid or | possibilities of the record | | |
| | altered records? | alteration in Process Data | | |
| | | file. | | |
| | | System should not allow | | |
| | | altering record. | | |
| | | Try to enter Invalid | | |
| | | character or Value in the | | |
| | | system. | | |
| 11.10(b) | Is the system capable | Take batch printout and | | |
| | of producing accurate | Verify Print out of Data | | |
| | and complete copies | Recorded. Data display and | | |
| | of electronic records | Print should be match. | | |
| | on paper? | | | |
| 11.10(c) | Are the records | Verify data backup location | | |
| | readily retrievable | and data retrieving | | |
| | throughout their | facilities. | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

| S.No. (As per clause) | Question | Testing procedure and requirement. | Actual Result | Discrepancy (Y/N) |
|-----------------------------|--|---|---------------|----------------------|
| , | retention period? | Check data retention | | |
| | | period. It should be | | |
| | | documented in DATA | | |
| | | Backup SOP. | | |
| 11.10(d) | Is the system access is authorized to individuals? | Try to access the system by entering invalid user ID and Password for All Level for operating System and Application software. Check access rights of each | | |
| | | level. | | |
| | | System should not allow | | |
| | | unauthorized person. | | |
| 11.10(e) | Is there a secure, | Try to change or modify | | |
| | computer generated, | the set parameter and check | | |
| | time stamped audit | for audit trail generated by | | |
| | trail that records the | the system. | | |
| | date and time of | | | |
| | operator entries and | Audit Trail should be | | |
| | actions that create, | available for any | | |
| | modify or delete | modification | | |
| | electronic records? | | | |
| 11.10(f) | Is an electronic | Verify that audit trail is | | |
| | record's audit trail | available till data retention | | |
| | retrievable throughout | period. | | |
| | the record's retention | | | |
| | period? | | | |
| 11.10(g) | If the sequence of system steps or events | Check sequence of | | |
| Document | | Check sequence of | | Page 25 of 34 |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

| S.No. (As per clause) | Question | Testing procedure and requirement. | Actual Result | Discrepancy? (Y/N) |
|-----------------------------|---|---|---------------|-----------------------|
| 11.10(h) | is important, is this enforced by the system (e.g. As would be the case in a process control system)? Does the system | operation of Application software as per operation procedure. System should be operates as per sequence written in SOP. Try to access the system by | | |
| 11.10(ll) | ensure that only authorized individuals can use the system, electronically sign records, access the operation, or computer system input or output device, alter a record or perform other operations? | Ity to access the system by entering invalid user ID and Password for Application software. Check access rights of each level. Minimum 2 level is required in Application software System should not allow unauthorized person. | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

| S.No. (As per clause) | Question | Testing procedure and requirement. | Actual Result | Discrepancy? (Y/N) |
|-----------------------------|-------------------------|------------------------------------|---------------|-----------------------|
| 11.10(i) | If it is a requirement | Verify system input data | | |
| | of the system that | come from calibrated | | |
| | input data or | sensors and Transmitters. | | |
| | instructions can only | | | |
| | come from certain | | | |
| | input devices (e.g. | | | |
| | Terminals) does the | | | |
| | system check the | | | |
| | validity of the source | | | |
| | of any data or | | | |
| | instructions received? | | | |
| 11.10 (j) | Is there documented | Verify the training record. | | |
| | training, including on | Responsibility documents | | |
| | the job training for | for the all system user and | | |
| | system users, | related responsible person. | | |
| | developers, it support | | | |
| | staff? Is there a | | | |
| | written policy that | | | |
| | makes individuals | | | |
| | fully accountable and | | | |
| | responsible for | | | |
| | actions initiated under | | | |
| | their electronic | | | |
| | signature? | | | |
| 11.10(k) | System operation and | Verify and review System | | |
| | maintenance | Operation and Maintenance | | |
| | documentation | Document | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

| S.No. (As per clause) | Question | Testing procedure and requirement. | Actual Result | Discrepancy? (Y/N) |
|-----------------------------|---|--|---------------|-----------------------|
| | controlled? | | | |
| 11.10 | Is there a formal | Verify the sop of change | | |
| | change control procedure for system documentation that maintains a time sequenced audit trail for those changes made by the | control, data backup, access control and maintenance. | | |
| | pharmaceutical organization? | | | |

Remarks:

| Meet the acceptance Criteria [|] Yes [|] No | |
|--------------------------------|---------|------|-------|
| Checked by : | | | Date: |
| Verified by : | | | Date: |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

13. OPERATIONAL QUALIFICATION TEST STATUS:

The operational qualification test status is as per below mentioned table.

| Test Description | Status (Pass / Fail) | Discrepancy? (Y/N) |
|---|-------------------------|-----------------------|
| Verification of Field Instruments Calibration | | |
| Verification of Windows Security | | |
| Verification of System Start-up & Shutdown | | |
| Verification of Password Security | | |
| Verification of User access and security features of the system | | |
| Verification of Application software Screens. | | |
| Verification of System Response Failure. | | |
| Verification of Electronic Data Security | | |
| Verification of Audit Trail | | |
| Verification of Report Generation | | |
| Verification of User Prevented From Alternating Date and Time | | |
| Verification of Data Back Up | | |
| Verification of system software as per 21 CFR part 11 Clauses | | |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

14. DISCREPANCIES HANDLING DURING COMPUTER QUALIFICATION:

- In case of discrepancy observed during qualification, document in the defined column in each table and document the details of the observation in the discrepancy log sheet.
- Inform to engineering IT quality control and quality assurance about discrepancy.
- Investigate the discrepancy and ensure the possible impact.
- If discrepancy does not have potential to impact on operation as well as performance of the system, close the discrepancy with proper justification.
- The engineering IT QC and QA will decide whether discrepancy is acceptable or not.
- If discrepancy is acceptable, provide conclusion and recommendation if any into respective column.



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

15. DISCREPANCY AND CORRECTIVE ACTION FORM:

| Protocol Reference | |
|--------------------|--|
| Discrepancy Number | |

DISCREPANCY:

| Describe the Discrepancy | |
|--------------------------|------|
| | |
| | |
| | |
| Reported by | Date |

CORRECTIVE ACTION:

| Describe corrective action taken (Attach additional sheets if necessary) | |
|--|------|
| | |
| | |
| | |
| Reported by | Date |

DISPOSITION ACTION ;

| Acceptable? | Yes | No | | |
|-------------|-----|----|------|--|
| Discussion | | | | |
| | | | | |
| | | | | |
| | | | | |
| Approved by | | | Date | |
| Approved by | | | Date | |

COMPLETION:

| Completed by Date | |
|-------------------|--|
|-------------------|--|

Document No.:



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

16. ABBREVIATION:

| Abbreviations | Description |
|---------------|---|
| GMP | Good Manufacturing Practices |
| COMPUTER | Programable Logic Controller |
| SRS | System Requirement and Specification |
| IQ | Installation Qualification |
| OQ | Operation Qualification |
| QA | Quality Assurance |
| SOP | Standard Operating Procedure |
| NA | Not Applicable |
| ICH | International Conference of Harmonization |
| mA | Mili Ampere |
| VAC | Alternate Current Voltage |
| VDC | Direct Current Voltage |
| RH | Relative Humidity |



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

17. ATTACHMENT SUMMARY:

| Attachment No. | Description |
|----------------|-------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

18. OPERATIONAL QUALIFICATION SUMMARY & CONCLUSION:

Compiled by: _____

Date:_____

Document No.:

Page 33 of 34



OPERATIONAL QUALIFICATION FOR COMPUTER SYSTEM

System Name: FTIR

System ID:

19. POST APPROVALS:

The signature listed below indicates the post approval of this operational qualification. This approval is joint responsibility of listed functional areas.

| | DOCUMENT DEVELOPMENT | SIGN / DATE |
|-------------|----------------------|-------------|
| Name | : | |
| Designation | : | |
| | | |

| DOCUMENT REVIEW AND APPROVAL (M/S) | | |
|------------------------------------|-----------------|--|
| Sign / Date | • | |
| Name | : | |
| Designation | : | |
| | Engineering | |
| Sign / Date | · | |
| Name | : | |
| Designation | : | |
| | IT | |
| Sign / Date | • | |
| Name | : | |
| Designation | : | |
| | Quality control | |

| | DOCUMENT AUTHORIZATION (M/S) |
|-------------|------------------------------|
| Sign / Date | : |
| Name | : |
| Designation | : |
| | Quality Assurance |