Global Technology Infrastructure Qualification SOP

Industry: Information Technology (IT)

Audience: Information Technology (IT)

Global Technology Infrastructure Qualification Standard Operating Procedure

Document Control

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Purpose and Scope

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The Global Technology Infrastructure Qualification SOP aims to ensure that all IT infrastructure is properly qualified and validated to meet the required standards and regulations. This SOP outlines the procedures for qualifying IT infrastructure, including development of test scripts, obtaining approvals, and conducting testing.

Step-by-Step Procedure

- Method: Use a template to create the IQP document, ensuring it includes all necessary details, such as test scripts, timelines, and responsible personnel.
- Acceptance Criteria: The IQP document should be complete, accurate, and approved by relevant stakeholders.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure all personnel involved in the qualification process have the necessary training and expertise to perform their tasks safely and effectively.

1 **Define Infrastructure Qualification Plan (IQP)**: Develop an IQP document that outlines the scope, approach, and timeline for infrastructure qualification. The IQP should be based on the As Built document and include test scripts for all components and configurations.

- Method: Submit the IQP and As Built document to stakeholders for review and approval, ensuring that all comments and feedback are addressed.
- Acceptance Criteria: The IQP and As Built document should be approved by all relevant stakeholders.
- Time Estimate: 60 minutes
- Safety Considerations: ■ CRITICAL: Ensure that all approvals are properly documented and retained for audit purposes.

1 **Obtain Approval for IQP and As Built Document**: Obtain approval for the IQP and As Built document from relevant stakeholders prior to commencing testing.

- Method: Use a standardized approach to develop test scripts, ensuring they cover all necessary scenarios and configurations.
- Acceptance Criteria: Test scripts should be complete, accurate, and cover all necessary scenarios and configurations.
- Time Estimate: 180 minutes
- Safety Considerations: ■■ WARNING: Ensure that all test scripts are properly reviewed and validated to prevent any potential safety risks.

1 **Develop Test Scripts**: Develop test scripts based on the components and configuration outlined in the As Built document.

- Method: Execute the test scripts, ensuring that all tests are conducted in a controlled and safe environment.
- Acceptance Criteria: All tests should be successfully completed, and results should be properly documented.
- Time Estimate: 240 minutes
- Safety Considerations: ■■ WARNING: Ensure that all testing is conducted in a safe and controlled environment, with proper precautions in place to prevent any potential safety risks.

- Quality Checkpoints: ✓ CHECKPOINT: Verify that all test results are properly documented and retained for audit purposes.

1 **Conduct Testing**: Conduct testing according to the approved IQP and test scripts.

- Method: Use a standardized template to document the results, ensuring that all necessary information is included.
- Acceptance Criteria: The test results should be properly documented, and any deviations or issues should be addressed.
- Time Estimate: 60 minutes
- Safety Considerations: ■ CRITICAL: Ensure that all test results are properly documented and retained for audit purposes.

1 **Document Results**: Document the results of the testing, including any deviations or issues encountered.

Overall Time Estimate

The overall time estimate for this procedure is 660 minutes.

Definitions and Abbreviations

Definitions and Abbreviations

This section outlines the key definitions and abbreviations used throughout the Global Technology Infrastructure Qualification SOP.

1 **Review the As Built Document**: Obtain the latest version of the As Built document, which outlines the infrastructure components and configuration.

Method: Access the document repository and retrieve the most recent version (dated within the last 30 days).

Acceptance criteria: The document is in PDF format, 10-15 pages in length, and includes a detailed inventory of all infrastructure components.

Time estimate: 15 minutes

■ CRITICAL: Ensure the document is approved by the relevant stakeholders.

1 **Familiarize with IQP**: Review the Infrastructure Qualification Plan (IQP) to understand the testing scope, approach, and timelines.

Method: Read the IQP document, paying attention to the test scripts, test environment, and expected outcomes.

Acceptance criteria: The IQP document is 20-25 pages in length, includes 5-7 test scripts, and outlines a testing timeline of 10-12 weeks.

Time estimate: 30 minutes

■■ WARNING: Ensure the IQP is approved by the relevant stakeholders prior to testing.

1 **Understand Compliance Requirements**: Review the General Safety compliance requirements to ensure adherence to regulatory standards.

Method: Access the compliance repository and review the relevant documents (dated within the last 6 months).

Acceptance criteria: The compliance documents are in PDF format, 5-10 pages in length, and include a detailed outline of safety procedures.

Time estimate: 20 minutes

✓ CHECKPOINT: Verify that all compliance requirements are met prior to testing.

1 **Develop Test Scripts**: Develop test scripts based on the components and configuration outlined in the As Built document.

Method: Use a templating tool to create test scripts, ensuring each script includes 10-15 test cases.

Acceptance criteria: The test scripts are in Excel format, include a minimum of 50 test cases, and are reviewed by at least 2 stakeholders.

Time estimate: 120 minutes

■ CRITICAL: Ensure test scripts are approved by the relevant stakeholders prior to testing.

1 **Obtain Approvals**: Obtain approval for the IQP and As Built document from the relevant stakeholders.

Method: Submit the documents for review and obtain written approval (via email or document signature).

Acceptance criteria: Approvals are received from at least 3 stakeholders, including the IT Manager and Quality Assurance Lead.

Time estimate: 60 minutes

■■ WARNING: Ensure all approvals are received prior to testing.

Responsibilities and Authorities

Responsibilities and Authorities

The Global Technology Infrastructure Qualification SOP outlines the roles and responsibilities of individuals involved in the infrastructure qualification process.

- Method: Review the organizational chart and assign tasks based on job descriptions.
- Acceptance Criteria: A documented list of roles and responsibilities.
- Time Estimate: 30 minutes
- Safety Considerations: ■■ WARNING: Ensure all personnel have the necessary training and clearance to perform their assigned tasks.

1 **Define Roles and Responsibilities**: Identify the personnel responsible for infrastructure qualification, including the Qualification Lead, Test Engineers, and Document Controllers. Ensure each role has a clear understanding of their tasks and deadlines.

- Method: Schedule a meeting with stakeholders and present the IQP and As Built Document for review and approval.
- Acceptance Criteria: Signed approval documents from the Qualification Lead and stakeholders.
- Time Estimate: 60 minutes
- Safety Considerations: ■ CRITICAL: Ensure all approvals are documented and retained for audit purposes.

1 **Obtain Approval for IQP and As Built Document**: Secure approval from the Qualification Lead and relevant stakeholders for the Infrastructure Qualification Plan (IQP) and As Built Document prior to testing.

- Method: Review the As Built document and develop test scripts using a standardized template.
- Acceptance Criteria: A complete set of test scripts covering all components and configurations.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure test scripts do not pose a risk to personnel or equipment.

1 **Develop Test Scripts**: Create test scripts based on components and configuration outlined in the As Built document.

- Method: Execute test scripts and record results in a test log.
- Acceptance Criteria: Completed test log with pass/fail results.
- Time Estimate: 240 minutes
- Safety Considerations: ■■ WARNING: Ensure all testing is conducted in a controlled environment with necessary safety precautions.

1 **Conduct Testing and Validation**: Perform infrastructure qualification testing and validation according to the approved IQP and test scripts.

- Method: Compile test results into a final report and present to stakeholders for approval.
- Acceptance Criteria: Signed approval document from the Qualification Lead and stakeholders.
- Time Estimate: 60 minutes
- Safety Considerations: ■ CRITICAL: Ensure all documentation is accurate and complete.
- Quality Checkpoints:
- ✓ CHECKPOINT: Verify test results are accurately documented.
- ✓ CHECKPOINT: Ensure final approval is obtained from all necessary stakeholders.

1 **Document Results and Obtain Final Approval**: Document test results and obtain final approval from the Qualification Lead and stakeholders.

Required Materials and Equipment

Required Materials and Equipment

To initiate the Global Technology Infrastructure Qualification process, gather the following materials and equipment:

- Method: Access the document repository and verify the document's version and approval status.
- Acceptance Criteria: The As Built document must be version 1.0 or later and approved by at least two stakeholders.
- Time Estimate: 15 minutes
- Safety Considerations: None

1 **Gather Infrastructure Documentation**: Collect the As Built document, which outlines the infrastructure's components and configuration. Ensure the document is up-to-date and approved by the relevant stakeholders.

- Method: Utilize a scripting tool, such as Python or PowerShell, to create the test scripts. Follow the typical life cycle approach for infrastructure qualification.
- Acceptance Criteria: The test scripts must cover at least 90% of the infrastructure's functions and be reviewed by a peer.
- Time Estimate: 120 minutes
- Safety Considerations: ■■ WARNING: Ensure the test scripts do not introduce any security vulnerabilities or compromise the infrastructure's integrity.

1 **Compile Test Scripts**: Develop test scripts based on the components and configuration outlined in the As Built document. Ensure the scripts cover all critical infrastructure functions.

- Method: Submit the IQP and As Built document to the stakeholders and track their approval status.
- Acceptance Criteria: The IQP and As Built document must be approved by at least two stakeholders.
- Time Estimate: 30 minutes
- Safety Considerations: None
- ✓ CHECKPOINT: Verify that the IQP and As Built document are approved before proceeding with testing.

1 **Obtain Approval for IQP and As Built Document**: Obtain approval for the Infrastructure Qualification Plan (IQP) and the As Built document from the relevant stakeholders.

- Method: Utilize a virtualization tool, such as VMware or VirtualBox, to create a test environment that mirrors the production environment.
- Acceptance Criteria: The test environment must be identical to the production environment, with the same hardware, software, and network configurations.
- Time Estimate: 60 minutes
- Safety Considerations: ■■ WARNING: Ensure the test environment is isolated from the production environment to prevent any potential disruptions.

1 **Prepare Test Environment**: Prepare the test environment, including the necessary hardware, software, and network configurations.

- Method: Review the infrastructure qualification process and identify potential safety hazards.
- Acceptance Criteria: The safety review must identify all potential safety hazards, and mitigation strategies must be implemented.
- Time Estimate: 30 minutes
- Safety Considerations: ■■ WARNING: Ensure the infrastructure qualification process complies with General Safety regulations.
- ✓ CHECKPOINT: Verify that the safety review is conducted and mitigation strategies are implemented before proceeding with testing.

1 **Conduct Safety Review**: Conduct a safety review to ensure the infrastructure qualification process does not introduce any safety hazards.

Safety Requirements and PPE

Safety Requirements and PPE

To ensure a safe working environment during the Global Technology Infrastructure Qualification, follow these steps:

1 **Review Safety Protocols**: Review the company's safety protocols and procedures, paying close attention to electrical safety, fire safety, and emergency evacuation procedures. Method: Read the safety manual and attend a safety briefing if available. Acceptance criteria: Understand and acknowledge the safety protocols. Time estimate: 30 minutes.

■ CRITICAL: Familiarize yourself with the location of fire extinguishers, emergency exits, and first aid kits.

✓ CHECKPOINT: Confirm understanding of safety protocols with the team lead.

1 **Wear Personal Protective Equipment (PPE)**: Wear the required PPE, including safety glasses, gloves, and a lab coat, when working with electrical equipment. Method: Put on the PPE before starting work and ensure it is properly fitted. Acceptance criteria: PPE is worn correctly and at all times when required. Time estimate: 5 minutes.

■■ WARNING: Failure to wear PPE can result in serious injury.

1 **Ensure Proper Ventilation**: Ensure the work area has proper ventilation to prevent the accumulation of dust and other particles. Method: Check the ventilation system and ensure it is functioning correctly. Acceptance criteria: The work area has a consistent flow of clean air. Time estimate: 10 minutes.

✓ CHECKPOINT: Verify the ventilation system is working correctly with the facilities team.

1 **Use Proper Lifting Techniques**: Use proper lifting techniques when moving heavy equipment to prevent injury. Method: Bend at the knees, keep the back straight, and lift with the legs. Acceptance criteria: Equipment is lifted safely and without injury. Time estimate: 5 minutes.

■■ WARNING: Improper lifting can result in back injury.

1 **Follow Lockout/Tagout Procedures**: Follow lockout/tagout procedures when working with electrical equipment to prevent accidental start-up. Method: Lock out the equipment and tag it with a warning sign. Acceptance criteria: Equipment is properly locked out and tagged. Time estimate: 10 minutes.

■ CRITICAL: Ensure all energy sources are disconnected before starting work.

Approval Signatures

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

Approved by: _____ Date: _____