1. **PURPOSE**

This document identifies the requirements under test, specifies test cases, the implementation plan, and the qualification plan.

1. **SCOPE**

Verification of HMI Shutdown functionality

1. **APPLICABLE DOCUMENTS**

| **Document Number** | **Document Title** |
| --- | --- |
| SOP-00335 | Software Development Procedure |
| SOP-00478 | Test Software Procedure |

1. **EQUIPMENT / SUPPLIES**

| **Resource** | **Details** |
| --- | --- |
| NA | NA |

1. **Features/Requirements to be Tested**

| **SRS Number** | **Test Case Number and Name** |
| --- | --- |
| RVX2-SUBR-530 | Power Down(Shutdown) Method: Conditions and Flow |

1. **TEST PROCEDURE CASES**

| **Test Completion Status** | **Recorded Information** |
| --- | --- |
| **Test name:** | Power Down(Shutdown) Method: Conditions and Flow |
|
| **Name of Tester:** |  |
|
| **Signature:** |  |
|
| **Test Date:** |  |
|
| **Name of Reviewer:** |  |
|
| **Signature:** |  |
|
| **Date:** |  |
|
| **Test Duration (min):** |  |
|
| **Traceability requirement numbers:** | RVX2-SUBR-530 |
|
| **Product name and revision:** | Revox 2.0 |
|
| **Revox 2.0 Machine Name:** |  |
|
| **Controller/PLC software revision:** |  |
|
| **HMI Software Version:** |  |
|
| **Application Service Software Version:** |  |
|
| **Recipe WebApp Software Version:** |  |
|
| **Recipe Name and Revision** |  |
| **Database Report.pdf File Name** | NA |
| **Database Log.csv File Name** | NA |
| **Additional Equipment Used:** | NA |
| **Overall Result** | (indicate the test status here and provide issue #s) |
| Pass |  |
| Pass with Known Software Issues | Issue ID(s): |
| Fail | Issue ID(s): |
| End of Overview |  |

|  |  |
| --- | --- |
| **Prepare to Test (Pre-test setup)** |  |
| **Task Name** | **Task Description** |
| NA | NA |
| End of Prepare to Test |  |

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| --- | --- | --- | --- | --- |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” is “Cycle In Progress”** | | | | |
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|
| **Test Case ID:** | TC\_001 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen display status “Cycle In Progress” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed with below mentioned components:  1. Site Admin  2. Flush Refresh  3. Set Date/Time  4. Shutdown Machine  5. Manage Users  6. Service  7. Calibration  8. Manual Mode |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” is “Leak Test In Progress”** | | | | |
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|
| **Test Case ID:** | TC\_002 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen display status “Leak Test In Progress” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” is “ECHC In Progress”** | | | | |
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|
| **Test Case ID:** | TC\_003 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen display status “ECHC In Progress” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” is “Sterilant Flushing/Refresh** **In Progress”** | | | | |
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|
| **Test Case ID:** | TC\_004 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen display status “Sterilant Flushing/Refresh In Progress” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” is “Manual Mode** **In Progress”** | | | | |
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| **Test Case ID:** | TC\_005 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen display status “Manual Mode In Progress” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verification of “Shutdown Machine” button in “Utilities” screen when “Machine Status” field does not display any of the below mentioned status**  **1. Cycle In Progress**  **2. Leak Test In Progress**  **3. ECHC In Progress**  **4. Sterilant Flushing/Refresh** **In Progress**  **5. Manual Mode In Progress** | | | | |
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|
| **Test Case ID:** | TC\_006 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 | | | |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen does not display any of the below mentioned status:  1. Cycle In Progress  2. Leak Test In Progress  3. ECHC In Progress  4. Sterilant Flushing/Refresh In Progress  5. Manual Mode In Progress | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | Screen should get displayed with statement “Confirm Shutdown Machine or Cancel to Return to Utilities” along with “Confirm” and “Cancel” button |  |  |
| 4 | Click on “Cancel” button | Screen displaying statement “Confirm Shutdown Machine or Cancel to Return to Utilities” should get closed |  |  |
| 5 | Click on “Shutdown Machine” button from “Utilities” screen components | Screen should get displayed with statement “Confirm Shutdown Machine or Cancel to Return to Utilities” along with “Confirm” and “Cancel” button |  |  |
| 6 | Click on “Confirm” button | Screen should get displayed with statement “Request Water Flush” along with below mentioned components:  1. Confirm – Button (Disable)  2. Cancel – Button  3. “Water Flush” – Button  4. Status – Textbox (Read Only)  5. Cancel Flush – Button (Disable) |  |  |
| 7 | Click on “Water Flush” button | “Status” textbox should display status as “Starting” |  |  |
| 8 | Check “Cancel Flush” button in screen “Request Water Flush” | “Cancel Flush” button should get enabled |  |  |
| 9 | Check “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be disabled |  |  |
| 10 | Click on “Cancel Flush” button in screen “Request Water Flush” | “Status” textbox should display status “Not Active” |  |  |
| 11 | Check “Shutdown Machine” button from “Utilities” screen components | “Shutdown Machine” button should be enabled |  |  |
| End of Test Case | |  |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | |
| **Verify whether software allows user to shut down the system when water flush is completed** | | | | |
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| **Test Case ID:** | TC\_007 | | | |
| **SRS ID(s):** | RVX2-SUBR-530 |  |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”)  2. “Machine Status” field in “Home” screen displays status “Cycle Not Active” | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed |  |  |
| 2 | Click on “Utilities” button | “Utilities” screen should get displayed |  |  |
| 3 | Click on “Shutdown Machine” button from “Utilities” screen components | Screen should get displayed with statement “Confirm Shutdown Machine or Cancel to Return to Utilities” along with “Confirm” and “Cancel” button |  |  |
| 4 | Click on “Confirm” button | Screen should get displayed with statement “Request Water Flush” along with below mentioned components:  1. Confirm – Button (Enable)  2. Cancel – Button  3. “Water Flush” – Button  4. Status – Textbox (Read Only)  5. Cancel Flush – Button (Disable) |  |  |
| 5 | Click on “Cancel” button in screen “Request Water Flush” | Screen “Request Water Flush” should get closed |  |  |
| 6 | Click on “Shutdown Machine” button from “Utilities” screen components | Screen should get displayed with statement “Confirm Shutdown Machine or Cancel to Return to Utilities” along with “Confirm” and “Cancel” button |  |  |
| 7 | Click on “Confirm” button | Screen should get displayed with statement “Request Water Flush” |  |  |
| 8 | Click on “Confirm” button in screen “Request Water Flush” | Screen should get displayed with statement “Confirm for Machine Shutdown or Cancel to Return to Utilities” along with “Confirm” and “Cancel” button |  |  |
| 9 | Click on “Confirm” button | Screen should get displayed with statement “Machine is Shutdown. Remove Machine Power or Press Start Button” along with “Start” button |  |  |
| End of Test Case | |  |  |  |

|  |  |
| --- | --- |
| **Test Clean Up** | |
| **Task Name** | **Task Description** |
| NA | NA |
| End of Clean Up and End of Test |  |

1. **Qualification Plan**

A dry run will be performed and test errors, if any, will be corrected.

1. **Limitations**

NA