Lock Out Tag Out (LOTO) Procedures DB User's Guide
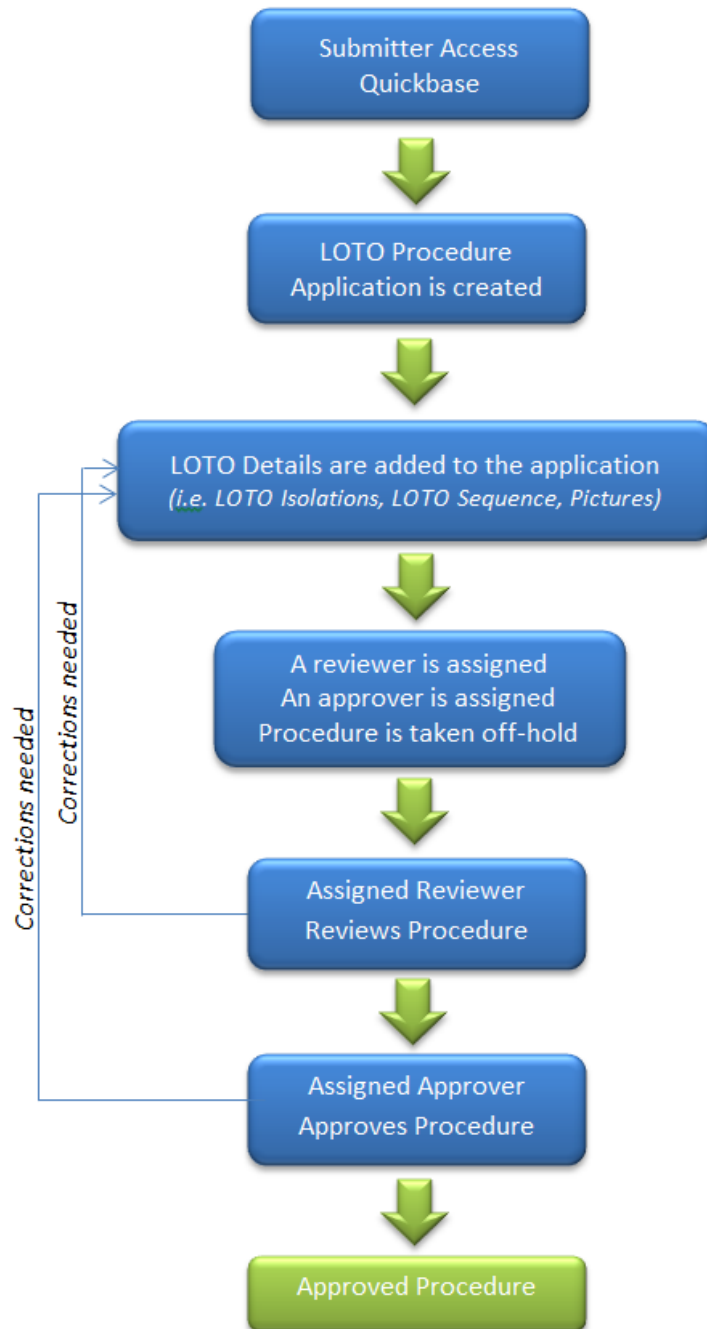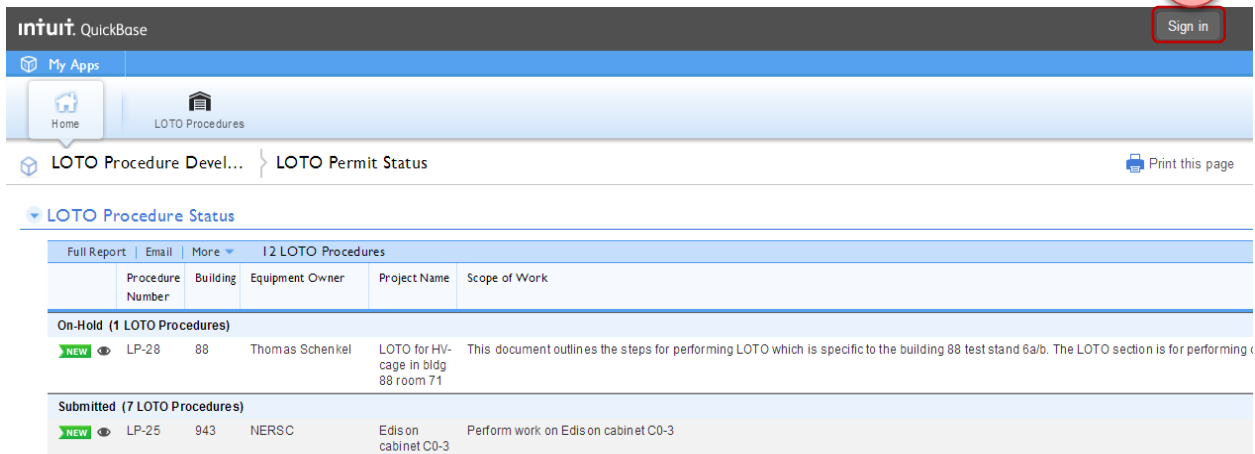
LBNL Electrical Safety

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1. LOTO Procedure Approval Process

2. Sign into Quickbase: LOTO Procedure System

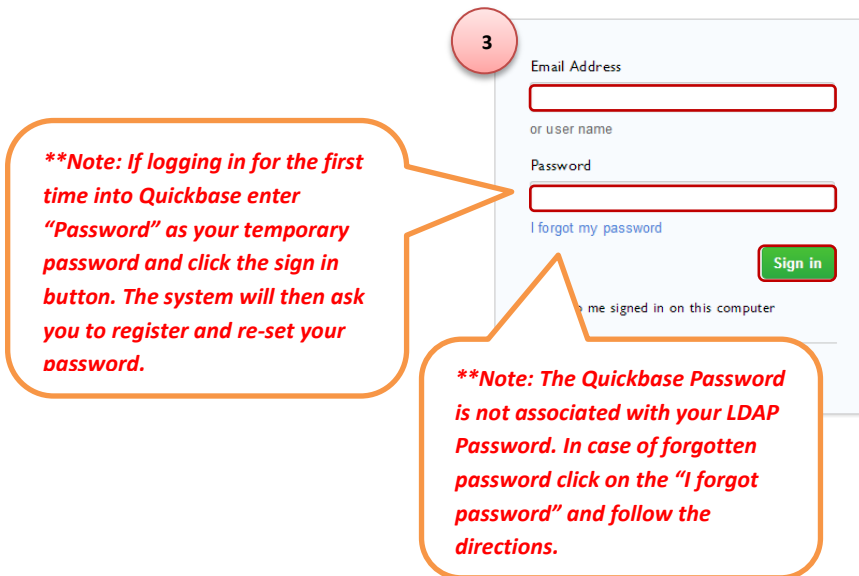Step 1 - Navigate to: https://lbnl.quickbase.com/db/bh93igfed

Step 2 - Click on the sign-in button in the upper right corner of the page. <mark>Sign in is only required if you are a reviewer or approver. Anyone who has access to the Internet can input an application.</mark>

Step 3 – Enter your LBNL Email Address and your password, then click the sign in button.

**Note: If logging in for the first time into Quickbase enter "Password" as your temporary password and click the sign in button. The system will then ask you to register and re-set your password.
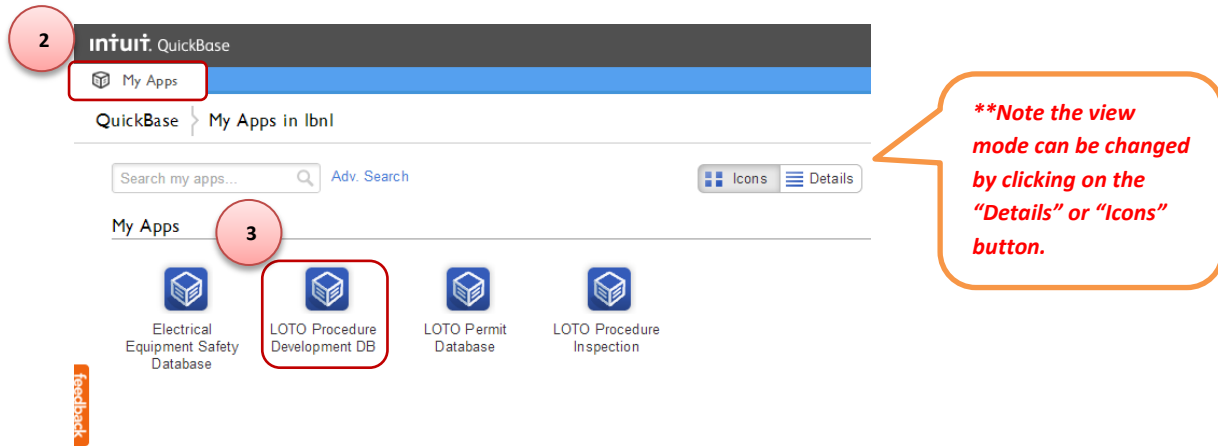
**Note: The Quickbase Password is not associated with your LDAP Password. In case of forgotten password click on the "I forgot password" and follow the directions.

3. Accessing the LOTO Procedure Application

Step 1 – Log into Quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Click on the "My Apps" tab on the left top of the page. *(It will display the applications for which you have been granted access)*

Step 3 – Click on the desired "LOTO Procedure Development DB" to access the application. *(This page might look different depending on the current view mode)*

2

Intuit. QuickBase

My Apps

QuickBase > My Apps in lbnl

Search my apps... Adv. Search   Icons Details

My Apps

3

Electrical Equipment Safety Database   LOTO Procedure Development DB   LOTO Permit Database   LOTO Procedure Inspection

feedback

**Note the view mode can be changed by clicking on the "Details" or "Icons" button.

4. LOTO Procedures Home Dashboard

Step 1 – Log into Quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Access the LOTO Procedure Application. *(Refer to section 3 of this document)*

The Home Dashboard is the system point of reference. In the Dashboard you will find:

1. A report of all the procedures in the system grouped by their respective approval status.
2. Button to initiate / create a new LOTO Procedure
3. List of other applications within Quickbase (i.e LOTO Permit system, EEWP)
4. A list of tables for which you have been granted access within the currently accessed application
5. You can always return to this dashboard by clicking on the "Home" button

5. Look up, create, or clone a LOTO Procedure

a) Search / Look up for an existing LOTO Procedure

Step 1 – Log into Quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Click on the "LOTO Procedures" tab

Step 4 – Type a specific LOTO Procedure ID *(i.e. LP-1)*, or some specific argument *(i.e. cabinet C0-3)* then press the enter key. *(This function will search for the arguments typed and return a relevant list of procedures for the arguments provided)*

Step 5 – Chose to "edit" or "view" LOTO Procedure by clicking on the "pencil" or "eye" symbol respectively.

b) Create a new LOTO Procedure

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Click on the "LOTO Procedures" tab

Step 4 – Click on the "New LOTO Procedures" button

Step 5 – Fill in the LOTO Procedures Application form. List all isolations in section 6.

Step 6 – Click the "Save" button at the top of the page.

Step 7 – Verify that the LOTO Procedure has been created

c)   Clone an existing LOTO Procedure

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Search for the existing LOTO Procedure desired to be cloned and click the view symbol. *(Refer to section (a) above)*

Step 4 – Click on the "More" option on the top right corner of the screen

Step 5 – Click on "Copy this LOTO Procedure"

Step 6 – Make any changes as appropriate

Step 7 – Click the "Save" button

**Note isolations will not copy automatically when cloning a procedure. The isolations will have to be imported after the permit is cloned. Please refer to section 6-b for instructions on how to import isolations.

Step 8 – Verify that the LOTO Procedure has been created

6. Add or Import Isolations to a LOTO Procedure

a. Add Electrical Isolations

Step 1 – Log into quickbase LOTO Procedure Application. (Refer to section 2 of this document)

Step 2 – Enter the LOTO Procedure Application. (Refer to section 3 of this document)

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)

Step 4 – Scroll down to Section 6 of the LOTO Procedure Application and click on the "Add Electrical Isolation" button.

Step 5 – Fill out the electrical isolation details of the data entry form. *(leave blank any information that is not known i.e. Arc Flash Energy, boundary, and PPE)*

Step 6 – Click the "Save" button, the isolation will be automatically added to the referenced LOTO Procedure listed on the "LOTO Procedure Number" field in this data entry form highlighted in red.

Step 8 – Verify that the Isolation has been created

b. Add Non-electrical Isolations

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)

Step 4 – Scroll down to Section 6 of the LOTO Procedure Application and click on the "Add Non-Electrical Isolation" button.

Step 5 – Fill out the non-electrical isolation details of the data entry form. *(leave blank any information that is not known)*

Step 6 – Click the "Save" button, the isolation will be automatically added to the referenced LOTO Procedure listed on the "LOTO Procedure Number" field in this data entry form highlighted in red.

Step 7 – Verify that the Isolation has been created

c. Add Energy Dissipation Devices

Step 1 – Log into quickbase LOTO Procedure Application. (Refer to section 2 of this document)

Step 2 – Enter the LOTO Procedure Application. (Refer to section 3 of this document)

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)

Step 4 – Scroll down to Section 6 of the LOTO Procedure Application and click on the "Add Energy Dissipation Device" button.

6. Isolation Checklist

ⓘ Import all isolations from an existing LOTO procedure

| | Import Isolations |

Electrical Isolations:

| | Add Electrical Isolation |

Non-electrical Isolations:

| | Add Non-Electrical Isolation |

Stored Energy Dissipation Devices:

4 | Add Energy dissipation device |

Step 5 – Fill out the energy dissipation device details of the data entry form. *(leave blank any information that is not known)*

Step 6 – Click the "Save" button, the isolation will be automatically added to the referenced LOTO Procedure listed on the "LOTO Procedure Number" field in this data entry form highlighted in red.

5   **6**

Energy dissipation devices 〉 Add Energy dissipation device   Save ▾

LOTO Procedure Number:
LP-25

Line Number:

Equipment Descriptor   Dissipation Point   Stored Energy Type

Magnitude

PPE

Device

Step 7 – Verify that the Isolation has been created

d. Import Isolations

For similar Equipment LOTO Procedures it is often useful to clone an existing LOTO Procedure as in section 5-c. In these cases it is also useful to add the same isolations to the cloned procedure. One can then use the Import Procedures feature to copy and add isolations from one procedure to the other.

Step 1 – Log into quickbase LOTO Procedure Application. (Refer to section 2 of this document)

Step 2 – Enter the LOTO Procedure Application. (Refer to section 3 of this document)

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)

Step 4 – Scroll down to Section 6 of the LOTO Procedure Application and type the LOTO Procedure Number of the LOTO Procedure you would like to import isolations from.

Step 5 – Click on the "Import Isolations" button.

Step 6 – The system will prompt the message below, click on the "Save" button

Step 7 – Verify that the Isolation has been created

7. Specify the Procedure Lock Out Tag Out (LOTO) Sequence

Procedure Lock Out Tag Out (LOTO) Sequence can be specified in three ways. By using a default list of LOTO Steps (Step 2a below), by describing the LOTO sequence within the application (Step 2b below), or by attaching a document to the application (Step 2c below).

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)

Step 4a – Scroll to Section 7 and answer "No" to the specified question. (This is ideal in the case of simple LOTO or when a specific LOTO sequence is not required for the scope of work)

7. Is a specific LOTO Sequence required for LOTO? ⓘ

No ▼

4a

**Below is the default LOTO Steps.

3. LOTO SEQUENCE

When locking out the equipment, follow the LOTO Implementation Steps for each isolation. When restoring the equipment, follow the LOTO Clearance Steps to clear each isolation

LOTO Implementation Steps	LOTO Clearance Steps
1. Preparation: review all hazards and controls and perform full employee briefing	1. Verify all work complete and guards in place, or stop all work and install suitable barricades and/or attendants, as required
2. Notify affected personnel, verify that it is safe to shut down the equipment	2. Notify affected personnel, and verify that it is safe to start up the equipment
3. Perform normal equipment shutdown	3. Remove devices for Stored Energy if previously applied (blocks, grounds…)
4. Isolate the energy source	4. Remove LOTO Device, Lock & Tag
5. Apply LOTO Device, Lock & Tag	5. Restore power to the equipment
6. Release Stored Energy if necessary, apply devices if necessary (blocks, grounds…)	
7. Attempt to Restart the Equipment	
8. Verify Zero Energy State	

**This table will not show within the application. It will only show in the draft print out or in the final approved print out. Both can be accessed in the top part of the LOTO Procedure application.

LOCKOUT TAGOUT (LOTO) PROCEDURE

Procedure Number: LP-21   Status: Approved   ☐ Set LOTO Procedure on-hold ⓘ   Preview Draft   Print Approved Procedure

Step 5b – Scroll to section 7 choose "Yes" to the specified question. Then proceed to describe the LOTO Sequence in the "Describe LOTO Required Sequence" field.

Step 6c – Scroll to section 7 choose "Yes" to the specified question. Then Proceed to attach the LOTO Sequence Document in the "Equipment Specific Procedure" field. Then reference the document in the "Describe LOTO Required Sequence" field. *(This is the ideal option when having a complex procedure with special formatting)*

8. Attach Pictures

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*

Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Navigate to the desired Procedure and click on the edit button. (refer to section 5-a)
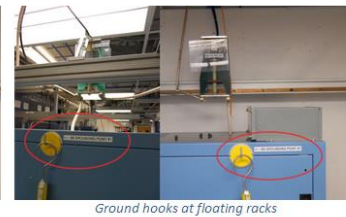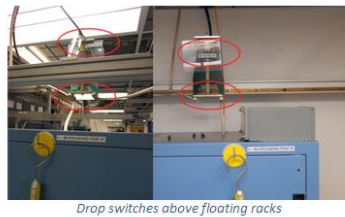
Step 4 – Choose file to upload by clicking on the "Choose File" button for Picture #1.

Step 5 – Add Description for Picture #1. *(Description will be shown below the picture in the final approved procedure print out)*

Step 6 – Repeat the process for the rest of the pictures (2-4). *(Note: only four pictures are allowed)*

Disconnects at north wall

Power distribution in rack

Drop switches above floating racks

Ground hooks at floating racks

9. Submit Procedure for Review

Once the LOTO Procedure has been drafted and ready for review. The Permit can be taken off hold and the approval process will begin.

Step 1 – Log into quickbase LOTO Procedure Application. *(Refer to section 2 of this document)*
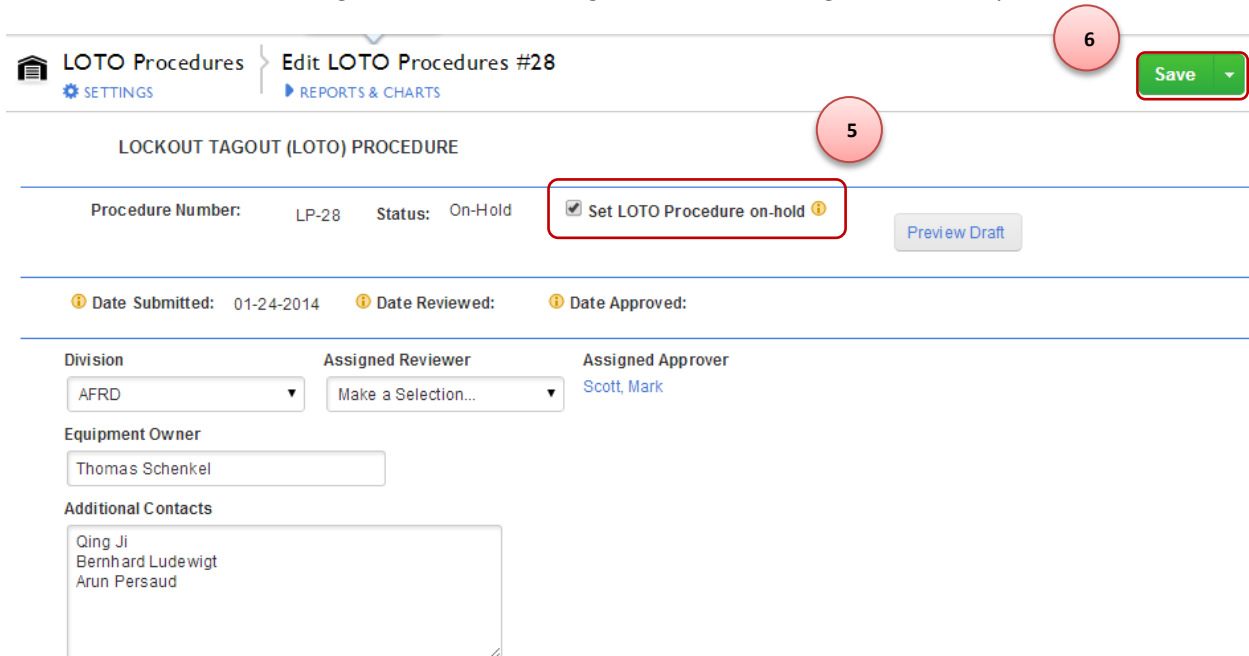
Step 2 – Enter the LOTO Procedure Application. *(Refer to section 3 of this document)*

Step 3 – Navigate to the desired LOTO Procedure and click on the "Edit" button. (refer to section 5-a)

Step 4 – Fill out every section of the LOTO Procedure Application and verify that all the information is correct to the best of your ability

Step 5 – Locate the "Set LOTO Procedure on-hold" checkbox and un-check the checkbox

Step 6 – Click on the "Save" button. *(The Procedure will automatically change status from On-Hold to Submitted. An email will be generated to the assigned reviewer to begin the review process)*

Step 7 – Verify the status changes to "Submitted"

10.   Reviewing Procedures

Step 1 – Review all data entered in the procedure application. Verify that the Isolations, Isolation Sequence, and Procedure are correct

Step 2 – If the LOTO Permit application requires corrections check the "Corrections Required" checkbox and skip to step 4. Do not proceed further until corrections have been completed

Step 3 – Initial in the "Reviewed by" field to review the LOTO Procedure. *(The application status will change from submitted to reviewed; an email will be generated notifying the submitter, reviewer, and approver that the Procedure has been reviewed)*

Step 4 – Click on the "Save" on the top of the page

11.   Approving Procedures

Step 1 – Review all data entered in the procedure application. Verify that the Isolations, Isolation Sequence, and LOTO Procedure details are correct

Step 2 – If the LOTO Permit application requires corrections check the "Corrections Required" checkbox and skip to step 4. Do not proceed further until corrections have been completed

Step 3 – Initial in the "Approved by" field to approve the LOTO Procedure. *(The application status will change from reviewed to approved; an email will be generated notifying the submitter, reviewer, and approver that the Procedure has been approved)*

Step 4 – Click on the "Save" on the top of the page

12.   Corrections Required

Step 1 – Fix the required corrections as outlined by the "Reviewer" or "Approver" in the comments at the bottom of the application

Step 2 – Once the corrections are completed click on the "Corrections Completed" checkbox

Step 3 – Click on the "Save" button. *(The application status will change from "Corrections Required" to "Corrected and re-submitted"; an email will be generated notifying the submitter, reviewer, and approver that the Procedure has been re-submitted with corrections)*

13.   Print a Drafted or Approved Procedure

Step 1 – To print a drafted LOTO Procedure click on the "Print Draft"

Step 2 – To print an approved LOTO Procedure click on the "Print Approved Procedure"