

# PROJECT ISOLATION

## 1 PURPOSE

To provide a safe process for the -

- Isolation of identified hazardous energy sources so that work may be undertaken on particular plant and equipment.
- Restoration of energy sources following the completion of work on plant and equipment that was previously isolated.

## 2 SCOPE

This isolation procedure applies to all people who work within RTCA owned and managed operations.

## APPROVAL

	Name	Position	Signed	Date
<b>Originator:</b>	Tim Dahlheimer	Health & Safety Specialist		
<b>Checked By:</b>	Paul Dewar	Manager – Health & Safety		
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<b>Authorised By:</b>	Darren Yeates	Chief Operating Officer		

## REVISIONS

Rev	Date	Revision description
1.0	28-03-06	New Standard.

### 3 PROCEDURE

Project Isolation involves the application of Personal locks to an Isolation Lock Box and is governed by one of two processes:

- Simple Project Isolation (5 or less isolation points).
- Complex Project Isolation (Greater than 5 isolation points).

#### 3.1 SIMPLE PROJECT ISOLATION (5 or less isolation points)

Simple Project Isolation allows the Permit Holder to undertake both the Permit Holder and Isolation Officer functions. This is optional and two people may be used as outlined in *Section 3.2 – Complex Project Isolation*.

**Note:** Where Simple Project Isolation is utilised, only the Permit Holder column in the ***Isolation of Energy*** section of the Project Isolation Permit needs to be signed.

Apart from the allowance of one person performing the isolation, the process for completing Simple Project Isolations is the same as that for Complex Project Isolations as described in *Section 3.2 – Complex Project Isolation*.

#### 3.2 COMPLEX PROJECT ISOLATION (Greater than 5 isolation points)

Complex Project Isolation is required where there are more than five personnel required to work under an isolation that has more than five isolation points.

##### 3.2.1 Isolation of Energy

Complex Project Isolations require the following steps to be undertaken by the noted personnel when isolating energy sources.

Step	Action	Tools Required
<b>Permit Holder -</b>		
1	<p><b>Identify</b></p> <ul style="list-style-type: none"> <li>▪ Check that the correct number of Project Isolation locks is contained within the Isolation Lock Box.</li> <li>▪ Check that the Permit Holder lock is contained within the Isolation Lock Box.</li> <li>▪ Initiate the Project Isolation Permit -               <ul style="list-style-type: none"> <li>○ Complete the <b><i>Description of Work Under this Permit</i></b> and the <b><i>Isolation Lock Box Number</i></b> sections of the Permit.</li> <li>○ Complete the <b><i>Isolation of Energy</i></b> section of the Permit -                   <ul style="list-style-type: none"> <li>• Plant or Equipment number and descriptions</li> <li>• Isolated position</li> </ul> </li> </ul> </li> </ul> <p><b>Note:</b> The completed <b><i>Isolation of Energy</i></b> section of the Permit forms the procedure for isolation and restoration of energy.</p>	<ul style="list-style-type: none"> <li>▪ Project Isolation Lock Box.</li> <li>▪ Project Isolation Permit.</li> <li>▪ Permit Holder lock.</li> </ul>
2	<p><b>Isolate</b></p> <ul style="list-style-type: none"> <li>▪ Directly supervise the Isolation Officer in carrying out the isolation procedure described in the <b><i>Isolation of Energy</i></b> section of the Permit.</li> </ul>	

Step	Action	Tools Required
3	<p><b>Test</b></p> <ul style="list-style-type: none"> <li>▪ Ensure the Isolation Officer clears the area of personnel and then confirms effectiveness of the isolation (eg. trial, test absence of voltage, etc).</li> </ul>	
4	<p><b>Lock</b></p> <ul style="list-style-type: none"> <li>▪ Directly supervise the Isolation Officer when placing Multilock devices and Project Isolation locks to isolation points as described in the <b>Isolation of Energy</b> section of the Permit.</li> <li>▪ Countersign against each isolation point noted in the <b>Isolation of Energy</b> section on the Permit to verify that the correct isolation points have been isolated and write the total number of locks used on the Permit.</li> <li>▪ Confirm that the Isolation Officer has placed the Project Isolation lock key inside the Isolation Lock Box along with any unused Project Isolation locks.</li> <li>▪ Place the Permit Holder lock onto the Isolation Lock Box to secure the Project Isolation lock key inside.</li> <li>▪ Complete the <b>Issue of Permit</b> section of the Permit.</li> <li>▪ If involved in the work, place your Personal lock on the Isolation Lock Box.</li> <li>▪ If required by Department Manager, place “Project Isolation in Place” signs with the name of the Permit Holder clearly indicated at the entry point to the work area.</li> <li>▪ If required by Department Manager, initiate a system to record people signing on and off the Project Isolation.</li> <li>▪ The Permit Holder must - <ul style="list-style-type: none"> <li>○ Be contactable by work party members.</li> <li>○ Confirm work to be undertaken is covered by the Project Isolation and explain to the work party what has been isolated.</li> <li>○ If appropriate, authorise placement of Personal locks to the Isolation Lock Box.</li> </ul> </li> <li>▪ If leaving the site or unable to fulfil the responsibilities of Permit Holder - <ul style="list-style-type: none"> <li>○ Transfer the Permit, or</li> <li>○ Place the Project Isolation ‘Out of Service’, or</li> <li>○ Cancel the Project Isolation.</li> </ul> </li> </ul>	
<b>Isolation Officer -</b>		
1	<p><b>Identify</b></p> <ul style="list-style-type: none"> <li>▪ Verify that the isolation points noted in the <b>Isolation of Energy</b> section of the Permit are correct for the work to be undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Isolation Permit.</li> </ul>
2	<p><b>Isolate</b></p> <ul style="list-style-type: none"> <li>▪ Isolate the points noted in the <b>Isolation of Energy</b> section of the Permit.</li> <li>▪ Secure or discharge secondary energy sources as required.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Isolation Lock Box containing Project Isolation locks &amp; key.</li> </ul>
3	<p><b>Test</b></p> <ul style="list-style-type: none"> <li>▪ Clear the area of personnel and then confirms effectiveness of the isolation (eg. trial, test absence of voltage, etc).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Multilock device/s.</li> </ul>

Step	Action	Tools Required
4	<p><b>Lock</b></p> <ul style="list-style-type: none"> <li>▪ Apply a Multilock device and a Project Isolation lock to each isolation point.</li> <li>▪ Write your name, the Project Isolation lock number and sign against each isolation point noted in the <b>Isolation of Energy</b> section of the Permit.</li> <li>▪ Ensure that the Project Isolation lock key is returned to the Isolation Lock Box along with any unused Project Isolation locks.</li> </ul>	
<b>Members of Work Party -</b>		
1	<p><b>Identify</b></p> <ul style="list-style-type: none"> <li>▪ Undertake a risk assessment to identify and understand the applicable energy sources that require isolation for your task.</li> <li>▪ Read and understand the Project Isolation Permit -               <ul style="list-style-type: none"> <li>○ Check the <b>Description of Work</b> section of the Permit to ensure it includes and covers your work.</li> <li>○ Confirm the isolation points for your task are included in the <b>Isolation of Energy</b> section of the Permit.</li> <li>○ Check that the Permit has been created and signed in the <b>Issue of Permit</b> section.</li> <li>○ Determine the current Permit Holder by checking the <b>Transfer of Permit</b> section of the Permit (last page).</li> <li>○ Check that the Project Isolation lock key has been secured inside the Isolation Lock Box.</li> <li>○ Check that a Permit Holder's lock is in place on the Isolation Lock Box.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Personal lock/s.</li> </ul>
2	<p><b>Isolate</b></p> <ul style="list-style-type: none"> <li>▪ No action required.</li> </ul>	
3	<p><b>Test</b></p> <ul style="list-style-type: none"> <li>▪ No action required.</li> </ul>	
4	<p><b>Lock</b></p> <ul style="list-style-type: none"> <li>▪ <u>Must</u> make contact with the Permit Holder (preferably in person) to get authorisation before placing a Personal lock on the Isolation Lock Box.</li> <li>▪ Place a Personal lock on the Isolation Lock Box, and isolate any additional energy sources under Personal Isolation (see C1-P001 <i>Personal Isolation</i>) or the appropriate Project Isolation Permit.</li> <li>▪ Stop and ask for assistance if you are unsure of the continuing safety of your current activities.</li> </ul>	

### 3.2.2 Restoration of Energy

Complex Project Isolations require the following steps to be undertaken by the noted personnel when restoring energy following the completion of the job -

Step	Action	Tools Required
<b>Members of Work Party -</b>		
1	<ul style="list-style-type: none"> <li>▪ Once work has been completed and the work area is clear, remove your Personal lock and inform the Permit Holder.</li> </ul>	<ul style="list-style-type: none"> <li>• Personal lock/s.</li> </ul>
<b>Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>▪ Once all Personal locks have been removed from the Isolation Lock Box complete the <b>Cancellation of Permit</b> section of the Permit.</li> </ul>	<ul style="list-style-type: none"> <li>• Project Isolation Permit.</li> <li>• Permit Holder lock key.</li> </ul>
2	<ul style="list-style-type: none"> <li>▪ Remove the Permit Holder lock from the Isolation Lock Box.</li> </ul>	
3	<ul style="list-style-type: none"> <li>▪ Arrange for an Isolation Officer to restore energy utilising the <b>Restoration of Energy</b> section of the Permit.</li> </ul>	
<b>Isolation Officer -</b>		
1	<ul style="list-style-type: none"> <li>▪ Once the Permit is cancelled and after notification from the Permit Holder, remove the Project Isolation lock key from the Isolation Lock Box.</li> </ul>	<ul style="list-style-type: none"> <li>• Project Isolation Permit.</li> <li>• Isolation Lock Box.</li> <li>• Multilock device/s.</li> <li>• Isolation Officer's lock.</li> <li>• 'Out of Service' tag/s.</li> <li>• Personal lock/s.</li> </ul>
2	<ul style="list-style-type: none"> <li>▪ Utilising the Project Isolation Permit, remove Project Isolation locks from each isolation point, recording the restored position and signing off as each energy source is restored.</li> </ul>	
3	<ul style="list-style-type: none"> <li>▪ If it is not safe to return the equipment to service, attach an Isolation Officer lock with an Out of Service tag to the relevant isolation point/s.</li> </ul>	
4	<ul style="list-style-type: none"> <li>▪ Verify that the total number of locks removed matches the total number of locks replaced.</li> </ul>	
5	<ul style="list-style-type: none"> <li>▪ Return the Project Isolation Permit to the Permit Holder.</li> </ul>	

### 3.3 TRANSFERRING A PERMIT

#### 3.3.1 Transferring a Permit Immediately

Step	Action	Tools Required
<b>Existing Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>▪ Communicate all the necessary details of the isolation in person to the new Permit Holder.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Isolation Permit.</li> <li>▪ Permit Holder lock key.</li> </ul>
2	<ul style="list-style-type: none"> <li>▪ Sign the transfer section on the Permit.</li> </ul>	
3	<ul style="list-style-type: none"> <li>▪ Hand over the key to the Permit Holders lock to the new Permit Holder.</li> </ul>	
<b>New Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>▪ Sign the transfer section on the Permit as the new Permit Holder.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Isolation Permit.</li> </ul>
2	<ul style="list-style-type: none"> <li>▪ Explain any necessary details of the job to the work party.</li> </ul> <p><b>Note:</b> Personal locks remain in place on the Isolation Lock Box and continuity of work is maintained.</p>	

### 3.3.2 Transferring a Permit after a Delay

Step	Action	Tools Required
<b>Existing Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>Ensure all Personal locks have been removed from the Isolation Lock Box.</li> </ul>	<ul style="list-style-type: none"> <li>Project Isolation Permit.</li> <li>Isolation Lock Box.</li> <li>Permit Holder lock.</li> <li>'Out of Service' strip.</li> </ul>
2	<ul style="list-style-type: none"> <li>Sign the transfer section of the Permit.</li> </ul>	
3	<ul style="list-style-type: none"> <li>Remove the Permit Holder lock and place an Out of Service strip over the padlock holes to prevent unauthorised lock-on. Relock the Isolation Lock Box with the Permit Holder lock through the Out of Service strip.</li> </ul>	
4	<ul style="list-style-type: none"> <li>Place the key to the Permit Holder lock in a secure key cabinet.</li> </ul>	
5	<ul style="list-style-type: none"> <li>Leave any necessary details of the job status for the new Permit Holder where required.</li> </ul>	
<b>New Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>Proceed to the work area and check the isolation is secure.</li> </ul>	<ul style="list-style-type: none"> <li>Project Isolation Permit.</li> <li>Permit Holder lock.</li> <li>Isolation Lock Box.</li> </ul>
2	<ul style="list-style-type: none"> <li>Sign the transfer section of the Permit as the new Permit Holder, remove the Permit Holder lock and remove the Out of Service strip.</li> </ul>	
3	<ul style="list-style-type: none"> <li>Confirm that the Project Isolation lock key is inside the Isolation Lock Box.</li> </ul>	
4	<ul style="list-style-type: none"> <li>Reattach the Permit Holder lock to the Isolation Lock Box.</li> </ul>	
5	<ul style="list-style-type: none"> <li>Explain any necessary details of the job to the work party.</li> </ul>	

### 3.3.3 Additional Permit Transfer Signature Sheet

Step	Action	Tools Required
<b>Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>If the area used to document the Permit transfer is full and additional transfers are expected, obtain more Permit transfer sheets.</li> </ul>	<ul style="list-style-type: none"> <li>Project Isolation Permit.</li> <li>Permit transfer sheet.</li> </ul>
2	<ul style="list-style-type: none"> <li>Write the Permit number on the Permit transfer sheet and securely attach it (e.g. by stapling) to the rear of the permit.</li> </ul> <p><b>Note:</b> The additional transfer sheet number must be written on the front of the Permit to denote that an additional transfer sheet has been added.</p>	

### 3.4 ADDITIONAL PROJECT ISOLATION LOCKS

If there are insufficient Project Isolation locks in a Isolation Lock Box then a second Isolation Lock Box can be utilised by adhering to the following procedure -

Step	Action	Tools Required
<b>Permit Holder -</b>		
1	<ul style="list-style-type: none"> <li>The second Isolation Lock Box number must be written on the front of the original Permit and placed on the second Isolation Lock Box.</li> </ul>	<ul style="list-style-type: none"> <li>Isolation Lock Box.</li> <li>'Out of Service' strip.</li> </ul>
2	<ul style="list-style-type: none"> <li>Project Isolation locks from the second Isolation Lock Box are used to isolate for the Project Isolation in conjunction with all of the Project locks from the first Isolation Lock Box.</li> </ul>	
3	<ul style="list-style-type: none"> <li>Secure an 'Out of Service' strip on the first Isolation Lock Box with a Project Isolation lock from the second Isolation Lock Box. Ensure that the Project Isolation lock key from the first Isolation Lock Box is contained within this first box.</li> </ul>	
4	<ul style="list-style-type: none"> <li>Personal locks must only be placed on the second Isolation Lock Box.</li> </ul>	
5	<ul style="list-style-type: none"> <li>The Permit Holder lock will only be applied to the second Isolation Lock Box.</li> </ul>	
6	<ul style="list-style-type: none"> <li>Two Permits may be written if additional line space is required to list all isolation points.</li> </ul>	