Group Standard

C1 – Isolation

Title: Isolation

Function: Health, Safety, Environment and Communities (HSEC)

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Owner: Global head of Health, Safety, Environment and Communities
Approver: Executive Committee
Target Audience: All Rio Tinto staff and each Rio Tinto Group business and function

Direct Linkages to other relevant Policies, Standards, Procedures or Guidance notes:

Rio Tinto management system standard, C2 – Electrical safety standard, C1 – Isolation guidance note

Document purpose:

To support implementation of the Group Safety policy. It defines the minimum acceptable requirements for prevention of injuries and fatalities by ensuring that before any work has begun on/in a system, plant or equipment it is made safe by isolation of hazardous energies and substances.
C1 – Isolation

Intent and scope
This standard applies to employees and contractors working at all Rio Tinto business units and managed operations, through all stages of their lifecycle from exploration through to closure. This standard applies to all sources of hazardous energy and/or hazardous substances. The intent is to prevent injuries and fatalities from:
- hazardous energies, and/or
- hazardous substances

Control requirements
Requirements in this standard apply in addition to any defined in the Rio Tinto management system. At all times, the elimination of risk is the priority.

Planning
1.1 There must be a process for ensuring that new plant and equipment is designed to include and minimise the number and/or complexity of lockable isolation points.
1.2 Whenever a piece of plant or equipment is to be isolated, there must be procedures for isolation.

   Procedures must cover:
   - identification - identification of all energy sources and isolation points,
   - isolation - the process for isolating all energy sources,
   - lock - the process for lock out,
   - test - the process for verifying effectiveness of the isolation, and
   - re-energisation - the process for safely returning the equipment to service.
1.3 There must be a person designated to carry out the isolation procedure. That person is referred to as the Isolation officer.
1.4 No person may be designated as the Isolation officer for a piece of plant or equipment unless they are deemed competent and authorised to carry out the isolation procedure.

Implementation and operation

Live/unisolated work
1.5 There must be a process to:
   a) minimise work on live/unisolated equipment,
   b) authorise live/unisolated work, and
   c) control the work area to prevent unauthorised access.
1.6 Where it is necessary to work on live/unisolated equipment for example commissioning, decommissioning, testing, calibration, sampling, adjustments, fault finding and troubleshooting, such work must be carried out in accordance with a procedure and controlled by a designated person who is deemed competent and authorised.

**Isolation officer’s responsibility**

1.7 Before any work is begun on plant or equipment, the Isolation officer must first ensure that it is made safe in accordance with the isolation procedure.

1.8 The isolation officer lock and identification tag must be the first to be applied and the last to be removed.

1.9 The isolation officer lock must be keyed alike as the lock will remain on the plant or equipment when handing over to subsequent shifts.

1.10 Keys to the isolation officer lock must only be held by other designated Isolation officers.

1.11 Where isolation involves only one person on jobs to be completed within a single shift and where it is not appropriate for the isolation officer lock to be utilised, the person must be an Isolation officer and must apply an identifiable personal lock or a lock with an identification tag.

1.12 After locking and tagging, the Isolation officer must clear the area of personnel before a test step to ensure the plant or equipment has been isolated.

1.13 In the case of isolation for electrical work, a test for the absence of voltage must be carried out.

1.14 In the case of high voltage isolations for electrical work conductors must be earthed.

1.15 Where lock stations or lock boxes are required then an isolation permit must be implemented.

**Everyone’s responsibility**

1.16 All persons including the Isolation officer, who perform work on plant or equipment, must first apply an identifiable personal lock or a lock with an identification tag in accordance with the isolation procedure.

1.17 Personal locks must be such that they can only be unlocked by the lock owner.

1.18 Personal locks must only be removed by the lock owner. If the lock owner is not available the lock must only be removed with the authorisation of the area manager and in accordance with a procedure.