RioTinto

# Group Procedure
# Mass Transport – Road, Water and Rail

**HSE-C-034**

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| **Group:**<br>Procedure | **Function:**<br>Health, Safety, Environment and Security (HSES) | **No. of Pages:**<br>12 |
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| **Supersedes:**<br>April 2018 | | |
| **Owner:**<br>Safety AoE | **Approver:**<br>Global Head of HSES | **Target audience:**<br>All Rio Tinto staff and each Rio Tinto Group business and function |

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

Safety standard C3 – Vehicles and driving;

Health Standard H4 – fitness for work;

Group Risk Standard – Risk Management Standard – RIS-B-001

RioTinto Management system standard – Rio Tinto Management system – HSE-B-01

RT MS Element 12 Business resilience and recovery

Group Procedure C3 – Rail Safety – HSE-C-23

Group travel and expense management procedure – Group Travel and Expense Procedure – RTP-C-03

Vehicles and driving guidance note;

Fatigue risk Guidance note;

**Document purpose:**

To complement the Safety Standard C3 - Vehicles and Driving by providing Rio Tinto employees and contractors the minimum requirements for road, water and rail mass passenger transport and the management of the safety risks associated with road, water and rail mass passenger transport.

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## Scope and intent

This Group procedure applies to all Rio Tinto business units, functions and managed Joint venture operations including new acquisitions.

Controls are mandated for all phases of an operation from exploration, through development and construction, operation, and closure and where applicable, post closure management.

This Group procedure covers mass transport activities across the Group; including the use by Rio Tinto employees, suppliers[1], contractors[1] and visitors[2] of:

- Road vehicles that are designed to transport nine (9) or more occupants (including the driver),
- Water vessels that are designed to transport nine (9) or more passengers[3],
- Rail vehicles that are designed to carry passengers[4].

It is not intended that this procedure apply to circumstances where a journey is purchased on regular public transport operations.

Where a cabin(s) (ferry) or carriage(s) (rail) is booked (one off or ongoing) on regular public transport service (for whatever reason) it is intended that every possible effort shall be undertaken to comply with the requirements of this procedure, if not this is not possible, a risk assessment must be conducted to ensure the safety of personnel using the service.

[1] When working for or attending a Rio Tinto site on Rio Tinto business
[2] When travel is organised by Rio Tinto
[3] Passengers are deemed to be personnel not employed or acting as members of the crew essential to the operation of the vessel or train (also does not include personnel on board for the purpose of training or verifying competency);
[4] Applies to Consists configured with carriages designed for carriage of passengers (ie pure passenger train or heavy haul/ freight or track maintenance train with passenger carriages), does not apply to hi-rail vehicles that do not meet the road vehicle description of mass transport.

## Definitions

**Adhoc:** one off use of a transport mode, including when a contracted service provider is required to substitute an owned vehicle with a third party owned vehicle to continue a service. Any use in excess of a once off is not deemed as adhoc and full compliance with this procedure is necessary.

**Anti-lock braking system (ABS)**: A part of the service brake system that automatically controls rotational wheel slip (prevents skidding) through brake modulation.

**Appropriately Qualified Person:** A person who by virtue of training or experience has sufficient knowledge to perform the necessary inspections required by this procedure.

**Consist:** a lineup or sequence of railroad carriages or cars, with or without a locomotive, that form a unit (also known as a rake).

**Electronic Stability Control (ESC)**: also referred to as electronic stability program (ESP) or dynamic stability control (DSC), is a computerized technology that improves a vehicle's stability by detecting loss of traction (skidding) and applying brakes to minimise the loss of control.

**Emergency Position Indicating Rescue Beacon (EPIRB):** - a satellite-based communication device used for signalling in an emergency.

**High Risk Journey:** a journey assessed as high risk following a risk assessment considering, (but is not limited to):

- Distance of travel from a township, site, or camp
- Distance travelled offshore
- Distance from suitable rescue capability (marine or air)
- Duration of travel
- Security considerations (Contact Group security for more information); and
- Travel in adverse weather or operating conditions (rough water, sea ice, high winds, uncharted areas; high tidal flow, bar crossings; mud, snow or ice, mountainous/ steep, deep sand, etc.).

**Pedestrian alert system:** system including sensors and alerting system visible/ audible by the driver to alert the driver or provide warning to pedestrians when pedestrians are in close proximity to a moving bus.

**Regular Public Transport: o**ne in which any person is able to purchase a trip (or trips) on the mode of transport. Where the mode of transport is for the exclusive use of RT employees, contractors, suppliers and visitors (in accordance with the footnote above), this is deemed not to be a public service.

## Control requirements

Requirements in this Group Procedure apply in addition to any defined in the Rio Tinto Management System and the Safety Standard C3 Vehicles and driving, Health standard H4, Mooring operations and Rail Safety Group procedure.

This procedure does not override or preclude compliance with any local regulatory requirements but sets out the minimum requirements for the management of Mass Transport safety risks.

### 1. Planning

1.1 Each site or Business Unit (BU) must appoint a Nominated Responsible Manager – Mass Transport (NRM - MT) to manage and oversee all Mass transport operations.

Each NRM - MT must have a minimum of one delegate.

The appointments must be made in writing by the site most senior leader.

The NRM – MT shall have sufficient authority and oversight to manage compliance with this Group Procedure.

1.2 The NRM – MT must ensure that there is a process in place to control the use of Ad-hoc hired or subcontracted vehicles, vessels, or trains. The process must include the following:

- Verification that vehicles, vessels, or trains meet the requirements of this procedure; and
- Inspection of the vehicle, vessel, or train by an Appropriately Qualified Person to ensure compliance with this procedure prior to the first journey.

Where compliance with minimum requirements is not possible a risk assessment must be completed to identify how the risks associated with non compliance can be adequately managed and this must be approved by the NRM-MT and site senior leader.

### 2. Implementation

*Fitness for duty*

2.1 Drivers of road vehicles, vessel crew and rail crew (including guards or conductors if used) are considered “Safety critical roles” and must be subject to pre-placement and regular medical examination.

2.2 The NRM – MT must ensure, to the extent permitted by local regulations, that:

- There is a process to conduct alcohol testing of drivers of road vehicles, vessel crew and rail crews at the commencement of the shift or prior to the start of a journey, where split shifts are undertaken, testing must be completed at the start of each split,
- Drivers of road vehicles, vessel crew, and rail crew are subject to the site or BU Alcohol and other drugs testing regime, and
- Fatigue is managed in accordance with the Health Standard H4 Fitness for work and associated Fatigue Risk Management Guidance note.

*Emergency Management*

3.1 Each site or BU must develop (and exercise) Emergency Response Plans for scenarios involving a Mass Transport incident (applicable to the site exposure and risk), these must consider:

- The response times of rescue services (site and/ or external),
- The capacity of rescue services and external facilities to manage mass casualties, and
- In the case of water transport, assessment of the need to have rescue vessels/ aircraft on standby for the duration of the journey.

*Road Transport*

4.1 All journeys must be risk assessed for the potential for, (but is not limited to):

- Regulatory requirements (vehicles and drivers),
- Collision,
- Rollover,
- Vehicle over edge,
- Vehicle breakdown,
- Driver fatigue,
- Adverse weather that may impact operation of the vehicle or is likely to be life threatening in the event of breakdown, and
- Security risks (including in the event of breakdown).

4.2 All vehicle drivers must:

- Hold a valid driver's licence for the class of vehicle being operated according to local regulations. For journeys completely within the confines of an operating site (no use of public roads) where a specific licence is not required by local regulation, drivers must hold the requisite licence applicable to the vehicle as if they were driving on a public road, unless approved by the site most senior leader after completion of a risk assessment; and
- Be assessed and authorised to drive each type of vehicle at a frequency derived from a risk assessment.

4.3 Where a risk assessment identifies a journey as a High Risk Journey, drivers must successfully complete training in defensive driving techniques which must include (but is not limited to).

- Emergency braking,
- Vehicle stopping distances (relative to speeds likely to be encountered),
- Driving in adverse weather (relative to operating area),
- Driver equipment setup (relative to vehicles being operated),
- Use of driving aids (all wheel drive, diff locks, low range) as applicable,
- Use of recovery equipment and associated safety considerations; and
- Application of driver control techniques.

4.4 A formal Journey Management Plan must be used where a journey includes any of the following, (but is not limited to):

- A High Risk Journey,
- Travel outside of daylight hours,
- Route(s) that the driver is unfamiliar with,
- intermittent or no communication services,
- Travel to remote or sparsely populated areas (includes roads with limited traffic), and
- Other high risk factors identified in the risk assessment.

4.5 The Journey Management Plan must consider, (but is not limited to):

- Route selection,
- Fatigue risk management and the need to provide relief drivers (if necessary),
- Planned rest stops,
- Scheduled calls,
- General and emergency communication requirements,
- Appropriate tools and recovery equipment,
- Weather conditions for the duration of the journey,
- Access to appropriate road condition reports,
- Carriage of emergency supplies considering forecast weather conditions and provision of rescue services, including drinking water, high energy food and shelter for 150% of maximum vehicle capacity for 24 hours,
- Passenger manifesting,
- Local security considerations, and
- The need for a lead or follow support vehicle.

4.6 The NRM – MT must ensure that vehicles are maintained in accordance with the manufacturer's requirements and any other specific requirements identified by risk assessment. This must include, (but is not limited to):

- Scheduled for replacement at no more than 10 year intervals;
- Routine and additional (harsh conditions) service intervals,
- Tyre condition and age (including suitability for the terrain and seasonal changes as appropriate),
- Brake operation, wear, and serviceability (including secondary braking systems – retarder, exhaust etc) and should include a brake test with results recorded,
- Seat belt operation and condition,
- Seat attachment to vehicle body,
- Operation of all emergency exits,
- Serviceability of fire extinguisher/ fire suppression systems,
- Window and washer/ wiper condition, and
- Survival/ first aid kit contents (including expiry dates).

4.7 All vehicles must have fitted:

- An in-vehicle monitoring system including an in-vehicle camera to be used to monitor driver behaviour – the system must:
    - Monitor and alert to breaches of:
        - Speed limits,
        - Failure of driver to wear seat belt,
        - Harsh acceleration or braking,
        - Such other parameters determined by the risk assessment, and
        - Alerts must be immediate to the driver and escalate to leaders as per site/ BU procedures.
    - Integrate with fatigue monitoring capabilities and provide:
        - Notification of fatigue or distraction events,
        - Alerts must be immediate to the driver and escalate to leaders as per site/ BU procedures.
    - The camera may include a view out the front windscreen and view of the driver, if only a single camera is installed it must view the driver (only).
- A minimum of one (1) fire extinguishers of a type and size determined by risk assessment and accessible from the passenger cabin,
- First aid kit, appropriate to the journey,
- Driving lights appropriate and sufficient for the journey undertaken (including spot and/or fog lights, and
- Seating and seat belts for every person on board.

4.8 All vehicles purchased post January 2022 must as a minimum have the following safety features:

- Be assigned a replacement date of not more than 10 years
- Seatbelts with a minimum of 3 points of attachment (lap sash, no lap or sash only belts),
- A system to indicate to the driver that all passengers are wearing seat belts,
- ESC or ABS,
- Lane departure warning/ assistance,
- Engine bay fire detection (minimum) and suppression system (manual and automatically activated),
- Pedestrian alert system,
- Blindspot monitoring or sufficient cameras to give the driver visibility of the vehicle exterior, and
- Sufficient emergency exits, as determined by risk assessment or local regulation to allow passengers to escape the vehicle if the primary exit is blocked or damaged. This may include, (but is not limited to):
    - Additional passenger entry doors,
    - Emergency exit doors,
    - Emergency escape roof hatches,
    - Push out windows, and
    - Provision of break glass hammers.

Where the above features are not available to be fitted a risk assessment must be completed to identify how the risks associated with not fitting these features can be adequately managed.

*Water Transport*

5.1 All journeys must be risk assessed for, (but is not limited to):

- Regulatory requirements (vessels and crews)
- Collision with other vessels, infrastructure, floating objects, or wildlife (which are capable of causing structural damage to the vessel),
- Vessel breakdown – including provision of tools and spares to facilitate running repairs to machinery and equipment aboard by qualified personnel,
- Loss of or limited communications,
- Master/ Crew fatigue including the provision of bridge navigational watch & alarm systems where appropriate,
- Adverse sea conditions (including access to local area forecasts),
- Requirement to provide immersion suits,
- Person overboard,
- Ability of rescue capability to attend in a timely manner,
- Weight of equipment and personnel for the planned use of the vessel does not exceed load or stability limits, and
- Operation outside of certified limits.

5.2 Where a risk assessment identifies a High Risk Journey, vessel masters and crew(s) must successfully complete training appropriate to the risk, which may include (but is not limited to).

- Bar or river mouth crossing techniques,
- Operation of specific technical equipment (ie Chart plotter, HF radio, Satellite communications (phone or Inmarsat),
- Operations around sea ice,
- Offshore survival,
- Use of immersion suits, including training of passengers.

5.3 A formal Journey Management Plan must be used where a journey involves any of the following, (but is not limited to):

- A High Risk Journey,
- Travel outside daylight hours,
- A journey which the vessel master has not travelled previously or within the last three (3) month[5],
- Intermittent or no communication services,
- A requirement to transit river mouths, bars or areas of increased sea state or tidal flow which may adversely affect vessel handling,
- Travel greater than 5 Nautical Miles (NM) offshore, 10NM offshore where a sea rescue unit has a response time of less than 30 minutes or 50 NM offshore where an air rescue unit has a response time of less than 30 Minutes, and
- Other risk factors identified in the risk assessment.

5.4 The journey management plan must consider, (but is not limited to):

- Distance from shore and average response times of rescue units,
- Fatigue management and the necessity to provide a relief master/crew,
- Planned stops, including the need to provide an anchor watch,
- Scheduled calls (where deemed necessary),
- Condition and provision of general and emergency communication equipment (including EPIRB),
- Weather conditions (actual and forecast) for the duration of the journey,

[5] This does not apply if the master is accompanied by another master for the purpose of familiarization.

- Life Jackets (Personal Floatation Devices (PFD) type 1) for all crew and passengers (to licenced capacity), and
- Lifeboats/ rafts for all crew and passengers with not less than 200% of licensed capacity or, 100% capacity if there is the ability to transfer easily to either side of the vessel to launch[6].

5.5 All vessel passengers must receive a safety brief from the crew prior to laving the dock or as soon as practicable after departure, this must include, (but is not limited to):

- Location and operation of life jackets,
- Location and operation of lifeboats/ rafts,
- Location and operation of EPIRBs,
- Location and operation of flares/ signalling devices,
- Where appropriate, operation of radios,
- Response plans, and
- Where provided, briefing on and practice donning of immersion suits.

5.6 The NRM – MT must ensure that vessels are maintained in accordance with the Manufacturer, local regulatory requirements and any other specific requirements identified by risk assessment. This must include, (but is not limited to):

- Compliance with local regulatory requirements, including issue of certificate of fitness or equivalent,
- All safety equipment including:
    - Inflatable PFDs,
    - Immersion suits,
    - Life rafts,
    - Fire extinguishers,
    - Fixed firefighting systems,
    - Watertight bulkheads,
    - Anchor and chain/ cable including bitter end joint(s) and anchor handling equipment,
    - Survival equipment (contents and expiry dates), and
    - First aid kits (contents and expiry dates).
- All electrical equipment including updates to chart plotters to the latest versions of charts
- Propellor(s), shaft(s) and rudder(s) condition and operation,
- All through hull fittings and openings for integrity, and
- Anti-fouling, including cleaning of all intakes and replacement of sacrificial anodes.

[6] this is to ensure that 100% capacity of lifeboats/life rafts is available for use irrespective of list angle or damage – hydrostatic release or float free systems may meet the intent

*Rail Transport*

6.1 All journeys must be risk assessed for, (but is not limited to):

- Regulatory requirements (Crews, Locomotives, passenger carriages and equipment),
- Collision with other rail vehicles, personnel, and track side infrastructure,
- Derailment,
- Crew fatigue, including the necessity for relief crews,
- Train separation,
- Weather,
- Geotechnical risks (tracks, cuttings, bridges),
- Signal system failure,and
- Loss of communications.

6.2 A formal Journey Management Plan must be used where a journey includes any of the following, but not limited to:

- A High Risk Journey,
- Travel outside of daylight hours,
- Intermittent or no communication services,
- Travel to remote or sparsely populated areas, and
- Other high risk factors identified in the risk assessment.

6.3 The Journey management plan must consider, (but is not limited to):

- Fatigue risk management and the need to provide relief drivers (if necessary),
- Planned rest stops,
- Speed restrictions for passenger trains (if necessary),
- Scheduled calls,
- General and emergency communication requirements,
- Weather conditions for the duration of the journey,
- Access to appropriate track condition reports (including geotechnical risks),
- Requirement to inspect tracks prior to departure (or within a reasonable time prior),
- Carriage of emergency supplies considering forecast weather conditions and provision of rescue services, including drinking water, high energy food and shelter for 150% of maximum train capacity for 24 hours,
- Passenger manifesting,and
- Local security considerations.

6.4 Where applicable and appropriate, rail passengers shall receive a safety briefing from a member of the on board personnel as soon as practicable after departure from each station on the journey which must include, but not limited to:

- Emergency exits,
- Operation of passenger operated emergency braking systems (where fitted),
- Communication systems (where on board personnel are not stationed in passenger cars),
- Emergency plans,
- Any procedures relevant to the rail system that affect passengers,
- Location of emergency/ survival kits, and
- Location and operation of EPIRB’s.

6.5 The NRM – MT must ensure that Rail Consist(s) used for passenger transport are maintained in accordance with the Manufacturers and Regulatory requirements and any other specific requirements identified by risk assessment. This must include, (but is not limited to):

- Routine and additional (harsh conditions) service intervals,
- Operation and condition of Knuckles/ joiners, hoses, and electrical connections,
- Wheel set and bearing condition and age,
- Brake operation, wear, and serviceability (including secondary braking systems – dynamic braking and emergency brake systems) and should include a brake test with results recorded,
- Heating/ cooling system operations,
- Seat security,
- Overhead stowage rack security,
- Condition and operation of all passenger doors and steps if fitted
- Operation of all emergency exits,
- Serviceability of fire extinguisher/ fire suppression systems, and
- Survival/ first aid kit contents (including expiry dates).