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# Traffic Management Specification

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## 1 Purpose and Scope

The purpose of this specification is to provide direction for all aspects of traffic management.

This Traffic Management Specification provides mandatory requirements to support implementation and conformance with Roy Hill Operations HSES Performance Standard for Vehicle Operations.

This specification applies to all persons entering Roy Hill operations and any other workplaces or areas for which Roy Hill has accountability.

## 2 Traffic Management Plans

Each Roy Hill site shall develop and implement a Traffic Management Plan (TMP) that shall detail the methods in which the site shall comply with this Specification. Work areas may develop area specific TMPs based on the outcome of a risk assessment of the site's traffic management requirements.

### 2.1 Traffic Management Consultation

Traffic management shall be reviewed at the frequency as determined by risk assessment and shall include the following:

- Implementation of the Traffic Management Plan and associated documentation
- Reviewing incidents that relate to traffic management on a quarterly basis, or in the case of a significant incident, once the investigation is complete
- Conducting audits and inspections
- Reviewing external and internal audit reports and findings.
- Conducting a review of access roads, intersections, the road system, signage and windrow construction where applicable
- Contributing to the continuous improvement of the Traffic Management Plan by reviewing recommendations submitted to the relevant Area Manager for approval

### 2.2 Communicating Changes to the Plan

Where temporary or permanent changes are made to this specification, or documentation covered by this specification, the GM or RM shall ensure those changes are communicated to site personnel in accordance with the Management of Change Procedure.

Communication methods may include:

- Toolbox talks
- Pre-shift information meetings
- Site/department health and safety meetings
- Return to site briefings
- Memos or notices posted to notice boards
- Direct one-on-one communication

### 2.3 Review

A review of the Traffic Management Plan shall be conducted annually as a minimum.

Where standards, legislation or business requirements change, all relevant documentation shall be reviewed to ensure compliance requirements are maintained.

The GM or RM is responsible to ensure the TMP is reviewed whenever the following triggers occur:

- Changes to Australian Standards or Legislation.

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- Incidents involving traffic or vehicles, both onsite and in equivalent industries across the Pilbara.
- Introduction of increased fleet requirements or new heavy mobile equipment to site.

## 2.4 Monitoring and Compliance

Compliance with the plan shall be monitored through:

- Auditing of site based TMP
- Auditing of area specific Traffic Control Maps
- Continuous assessment of conditions and practices by work teams
- Utilising pre-shift information meetings, workplace inspections, observations and work place conversations
- Supervisors inspection records
- Planned inspections

All personnel, vehicles and equipment accessing site may be subject to inclusion in a review process.

## 3 People

### 3.1 Licences, Training and Competency

#### 3.1.1 Drivers undergoing Training

A trainer shall supervise the person in training until they have completed both the theory and practical training required for the basic operation of the vehicle/equipment. Only once deemed able to operate the vehicle/equipment in a basic manner will the individual be able to operate without close supervision.

The person in training will be required to maintain a record detailing the range of conditions the equipment has been operated under until they are assessed as competent and authorised to operate the equipment.

#### 3.1.2 Pit Permits

Only holders of a valid permit can drive a vehicle in areas where heavy mobile equipment is in operation.

The Pit Permit Procedure details the process for obtaining a permit.

#### 3.1.3 Rail Service Track (RST)

Only persons who have undergone the RST awareness package as well as any Rail Safe Working training that may be required will be permitted to drive on the RST. Wayside maintenance must be contacted prior to any vehicle or equipment accessing the RST to seek advice on closures and restrictions.

#### 3.1.4 Public or Gazetted Roads

To operate any Roy Hill Holdings vehicles on a public or gazetted road, the driver must hold a current Western Australian drivers licence, or national equivalent, for the class of vehicle being operated.

#### 3.1.5 Traffic Control Accreditation

Any person or party intending to undertake an event or conduct works that may impact on traffic (including pedestrian traffic) within any part of a public or gazetted roadway shall, as a condition of approval by Main Roads WA, Local Government or any other authority responsible for the road, ensure that the person performing the tasks contained in Table 5 - Main Roads' Traffic Management for Works on Roads Code of Practice hold a relevant and current traffic management certificate of accreditation.

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## 4 Infrastructure

### 4.1 Road Design and Traffic Flow

Roadways, ramps, intersections, accesses, windrows, traffic flows and pedestrian walkways shall be designed to comply with the Roy Hill Basis of Design and Western Australian Road and Construction Specifications take into account the following parameters:

- Provision of a suitable running surface
- Road crossfall and corner superelevation
- Intersection layout
- Ramp gradients
- Drainage
- Speed limits
- Traffic control devices
- Interaction with pedestrians
- Types of vehicles using the road
- Environmental factors

### 4.2 Separation of Vehicles, Heavy Mobile Equipment and Pedestrians

Roy Hill shall endeavour to always implement design that separates light and heavy vehicles in areas that require this based on risk assessment. The site management team will identify areas where light vehicles and heavy mobile equipment can practicably be separated from each other, and put in place controls to maintain this separation.

Areas where both vehicles and heavy mobile equipment operate will be controlled by a suitable system such as a Pit Permit.

Where access to an area requires a road user to contact personnel by radio in that area for permission to enter, appropriate signage will be installed, and positioned to allow the vehicle or equipment to be positioned off the roadway while waiting for approval to enter.

Pedestrians have right of way at marked or approved pedestrian crossings. Road Network and Traffic Control Maps.

Competent and suitably qualified personnel shall produce accurate plans illustrating the road network to site personnel. Traffic control Maps for specific areas, showing current traffic flows and documented hazards may be generated for use in area Job Hazard Analysis (JHA) or inclusion on restricted area access signage.

### 4.3 Parking Area Design

Design of parking areas within the active mine and go-lines for all classes of equipment shall be in accordance with the Basis of Design.

Parking areas and go-lines will be designed to incorporate safe and segregated access to the area for light vehicles and pedestrians.

Reverse parking is required in all parking bays, except where an approved design allows for vehicles or equipment to use a drive through parking bay (unless otherwise specified by a risk assessment). This includes administration and industrial areas.

All heavy vehicle parking should be adjacent to the operating circuit (except maintenance parking areas) to facilitate direct entry and exit of the circuit itself.

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Parking bays must be of an adequate size to ensure the safe parking of the largest vehicle using them. Parking bay designs must prevent collisions with other parked vehicles and equipment.

For go-lines pedestrian access to parking bays must be limited to gaps of no more than 2 metres in width.

## 4.4 Road Construction and Maintenance

Roads shall be constructed in accordance with the requirements of the Basis of Design and or the Western Australian Road and Construction Specifications. All road maintenance must be conducted so that the road remains within design specifications. Periodic inspection of roads against their design specification and intended use shall be carried out.

## 4.5 Road Signage, Delineation and Barriers

The signs used to direct and advise traffic on-site shall conform to Australian Standard AS1742 Manual of Uniform Traffic Control Devices.

Road signage shall be positioned to ensure it does not obscure other signs or visibility of road users. Signage shall be maintained so it remains legible, and redundant signage shall be removed.

All road edges shall be delineated so that the road is clearly defined at all times, including the hours of darkness.

Roadways that are temporarily or permanently closed shall be signposted and barricading installed to restrict access to the area. Hard barricading should be utilised as a first preference, however if it is not practicable then as a minimum soft barricading such as bunting or traffic cones may be used.

## 5 Equipment

### 5.1 Vehicle Specifications

All equipment operating on the project shall comply with the applicable Roy Hill vehicle specifications.

The equipment specifications shall include the requirements for colouring, marking and equipping light vehicles and mobile equipment for adequate visibility and easy identification at a safe distance by other vehicles, mobile equipment and pedestrians.

### 5.2 Introduction of vehicles to site

A formal review of all vehicles or heavy mobile equipment introduced to site shall be undertaken to ensure compliance with Roy Hill standards, and to provide base line data for the vehicle performance.

A condition report will be completed for each item prior to use on the site.

### 5.3 Compliance Monitoring and Maintenance Management

Monitoring shall be undertaken by the maintenance department to ensure ongoing compliance with the vehicle specifications.

All RH equipment shall be recorded in the database for maintenance planning, and records of both scheduled and unscheduled maintenance and inspections will be maintained.

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## 5.4 Pre-start Inspections

Pre-start inspections shall be completed on all vehicles and heavy mobile equipment. Records of pre-start inspections shall be retained by the department responsible for the vehicle. The frequency at which pre-start inspections are conducted shall be determined by the risk assessment for the specific type of vehicle.

Any defects noted by pre-start inspections shall be recorded and reported to maintenance should repair work be required so that any such work may be expedited. Where it is not possible to remedy such a defect immediately, maintenance shall include the vehicles non-compliance in the maintenance planning database so that it may be repaired as soon as practicable.

Non-compliant vehicles shall not be operated until the defect is repaired.

Training on the requirements for pre-start inspections will be included in the competency training for the equipment.

## 5.5 Non-Company Vehicles

Service Providers, visitors, delivery vehicles and any other vehicles and equipment being operated in the Service Provider's area of responsibility are required to maintain and inspect their vehicles, and present evidence of these inspections and vehicle compliance when requested.

## 5.6 Controlling Access to Restricted Areas

A risk assessment of the site road network shall be conducted regularly. The permit level (if any) required to operate in each area or section of the road network shall be determined during the risk assessment process.

A plan identifying the permit areas across the site shall be produced. The plan will identify the locations of all access points allowing entry to the permit areas.

Access points to the site and restricted areas within the site shall have controlled access. These controls are designed to limit access of persons not authorised to enter the mine site or restricted area.

All entrances to the site shall be clearly signposted and demarcated as a restricted area. Any other potential entrances shall be either windrowed off or otherwise secured.

Restricted areas within the site shall be clearly signposted as restricted areas. Permission to enter the restricted area may only be given by an authorised person. All persons driving a vehicle in a restricted area shall be appropriately qualified and deemed competent to enter the areas

Emergency Security Officers shall maintain a current pit permit at all times. Emergency response personnel may enter a restricted area during an emergency situation.

Restricted areas within a site may include:

- Active mining areas,
- Non-mining areas,
- Haul roads,
- Heavy mobile equipment parking areas,
- Drill and blast areas,
- Processing Plant and Run of Mine (ROM) areas,
- Train loading areas,
- Heavy mobile equipment workshops,
- Hazardous material storage areas,

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- Areas where mobile maintenance work is occurring,
- Roads or pathways in a hazardous condition or state of repair, and
- Any other area as designated by an authorised person.

A physical barrier must be installed to prevent unauthorised access to an area where explosives are being loaded.

The perimeter will be delineated with a combination of signage, windrows, blast cones, flagging and flashing lights.

## 5.7 Active Mining Areas

Only personnel authorised under the Pit Permit system may enter an active mining area.

Non-compliant vehicles and oversize loads that require entry onto the site shall be escorted by an approved vehicle. For details on escorting see the Roy Hill Vehicle Escorting Work Instruction

Site Escorts shall be trained in the requirements of the Escorting procedure. Vehicles being escorted shall be equipped with a two-way radio to enable communication with the Site Escort.

Workgroups in areas travelled during the escort shall be notified by two-way radio prior to entering the work area.

## 5.8 Communications Two-way Radio

Two-way radio communication shall comply with the requirements of the Roy Hill Radio Communication and Spotter's Work Instruction.

Equipment or personnel call signs and designated radio channels shall be established for the project.

Personnel shall be trained in the requirements for Positive Radio Communication during the area induction and during competency training for vehicle or equipment operation.

All personnel and visitors shall be made aware of the emergency call up procedure.

## 5.9 Mobile Phones, Electronic Devices and Reading Material

Drivers are not permitted to use mobile phones under any circumstance until the vehicle is stationary in a safe location. The use of a hands-free kit does not negate this requirement.

The use of iPads, Tablets, or other portable electronic devices is prohibited while operating vehicles or equipment. Portable music devices are not permitted to be used unless they can be played via a link to the vehicles radio. The use of audio earpieces or headphones is not permitted.

The use of any form of reading material in a vehicle is not permitted unless the vehicle is parked in a safe location.

## 5.10 Traffic Rules

There is an established set of Traffic Rules that apply at the site. All operators of vehicles or heavy mobile equipment will be trained and assessed in their knowledge of the Traffic Rules before they are authorised to operate.

## 5.11 Parking

Vehicles must not park closer than 50 metres from any heavy mobile equipment unless separated by a physical barrier, or the equipment is turned off and the operator is out of the cabin.

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In designated parking areas, v-drains will be provided and equipment will be parked with wheels in the v-drain and park brake applied.

Vehicles and equipment will not be parked within 10 metres of any batter or face.

Broken down equipment will be left with wheels chocked and the area demarcated with traffic cones or warning tape. Personnel working in the area must be notified of the location of the equipment initially by two-way radio.

## 5.12 General Lighting

Adequate lighting resources shall be provided on site to service all areas including:

- Pedestrian crossings
- Permanent walkways
- Go-Line pedestrian and park up areas
- Permanent parking, administration and workshop areas
- Any other areas as indicated by risk assessment
- Both fixed and portable lighting shall be considered and utilised as appropriate

## 5.13 Overtaking

The requirements for overtaking shall be detailed in the area traffic management plans but where overtaking is permitted, Positive Radio Communication must be gained prior to overtaking.

A 50 metre separation distance must be maintained between vehicles while attempting to contact the vehicle ahead.

Overtaking emergency or explosives vehicles, operating haul or water trucks, scrapers or any vehicle under escort is not permitted.

Vehicles engaged in road maintenance and other slow moving equipment on haul roads and access roads may be overtaken, but only where safe to do so.

## 5.14 Working on Roadways

For persons required to work on roadways all of the following shall be completed prior to accessing the area:

- Authorisation from the area supervisor to conduct the work;
- Radio communication advising of presence, intent and estimated duration in area;
- Traffic shall be controlled through signage, delineation, spotters and positive communication. Where practicable, traffic control devices shall be used.
- For dusk or night time work, flashing lights shall be used for delineation;
- Speed restrictions are to be deemed appropriate based on risks in the risk assessment.
- Hold the appropriate traffic control accreditation if within any part of a public or gazetted roadway.

## 5.15 Overhead Power lines and Low Clearance Areas

Mine roadways and haul roads should be designed to minimise crossing underneath overhead powerlines and prevent inadvertent contact.

- The following activities shall not be carried out in the power line corridors which is the area 10m either side of the power line:

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- Drilling, excavating, loading, hauling or dumping
- Construction, fabrication, maintenance or storage of buildings, structures, machinery and equipment
- Operation of vehicles or machinery with elevating parts that do not afford the required clearance when fully raised (Except when maintenance is required to be performed in line with the HV Procedure)
- Haul truck class/ancillary equipment shall only operate along existing or established roads that pass under overhead powerlines provided that:
  - Minimum clearance for the movement of vehicles and machinery under and in the vicinity of overhead powerlines shall be met
  - Warning signs shall be posted on roads under powerlines which identify the hazard and the clearance distance
  - Warning signs shall be posted at the entrance of the power line corridor and at a distance that shall allow the vehicle time to stop given the posted speed limit

The location of all underground and overhead power lines in the operation shall be determined and surveyed for inclusion in planning, permit and risk assessment activities.

Power line corridors will extend 10 metres either side of any power line so that contact or flashover is prevented under normal operating or foreseeable abnormal circumstances.

All power line crossings shall be signposted with the maximum height of a vehicle that may pass below it, and where practicable, height restriction barriers installed:

- Where overhead power lines are present in areas that mobile equipment can reasonably be expected to operate or travel, the following controls shall be implemented.
  - Designated points where equipment may cross the power corridor
  - Equipment shall not be operated in a power line corridor without a permit
  - A spotter is required for all works conducted within 10 metres of each side of the power line

For a full explanation of management of electrical risks see the Electrical Safety Management document.

- Roads travelling under structures:
  - Signage shall be installed in a way to alert drivers so as to minimise the risk of inadvertent contact of the structure they are about to go under
  - Where the clearance distance is less than that of any vehicle designated to operate on the road, a physical barrier warning device shall be in place

## 5.16 Rail Crossings

All personnel driving on the rail service track shall have appropriate authorisation to do so. Where rail crossings exist, all personnel shall comply with rail signage and any procedures or instructions relating to operations in the rail corridor.

A system will be established to ensure Roy Hill operations is notified in case of:

- Malfunctioning electronic boom gates or signals
- Damaged signage
- Potentially hazardous situations within the rail corridor or along the rail service track.

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## 6 Essential Procedures

### 6.1 Journey Management

All personnel travelling in road going vehicles on high risk road journeys for work purposes must comply with the Roy Hill Journey Management Procedure.

High risk road journeys are categorised as any journey:

- On non-gazetted roads or in areas with poor or no communication
- Ending at an unmanned site/location

Where the journey does not qualify as a high risk journey, the immediate supervisor will be notified to the intended travel.

The journey management procedures will require all personnel travelling, including passengers, on a high risk journey to:

- Complete a journey plan and lodge the form prior to departure.
- Notify the departure site on arrival at the location and prior to return.

The journey management procedure will detail the emergency response taken if no contact is made on arrival.

### 6.2 Emergency Vehicles

An Emergency Response Plan shall be established for the site. It is a requirement that the entire site is informed by two-way radio when an emergency vehicle is in attendance.

Emergency vehicles have right of way at all times when attending an emergency.

### 6.3 Field Servicing, Breakdowns and Fuelling

Work Instructions shall be established detailing the requirements for field servicing, breakdowns and fuelling and of equipment, including:

- Measures to prevent uncontrolled movement
- Demarcation requirements
- Separation from other equipment requirements
- Isolation of equipment
- Requirement for operator to exit equipment prior to fuelling

### 6.4 Environmental Conditions

Personnel are authorised to stop activities in the event that road or site conditions are considered unsafe due to the effect of weather conditions or other environmental factors such as glare and dust.

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## 7 References and Associated Documents

Document number	Title
	Mines Safety and Inspection Act 1994 (WA)
	Mines Safety and Inspection Regulations 1995 (WA)
	Emergency Management Act 2005 (WA)
	Emergency Management Regulations 2006 (WA)
	AS/ NZS 1742: Manual of Uniform Traffic Control Devices.
050RH-000-HS-STD-001	Roy Hill HSES Management Standards
050RH-000-HS-STD-002	Roy Hill HSES Management Standards
OP-PRO-00477	Fitness For Work Procedure
OP-PRO-00040	Electrical Safety Management Procedure
	Pit Permit-Rules and Traffic Guideline
OP-SPC-00373.	Roy Hill Basis of Design
OP-WIN-00057	Live Refuelling
OP-SPC-00152	Traffic Management Plan Mine
OP-PLN-00085	Mine Emergency Response Plan
OP-PLN-00147	ROM Traffic Management Plan
OP-PRO-00991	Bus Operations Procedure
OP-PRO-00078	Electronic Devices Procedure
OP-PRO-00114	Spotting procedure
OP-PRO-00291	Change Management Procedure
OP-SPC-00034	Light Vehicle Specification

## 8 Review

Reviews are to examine the appropriateness of the specification, taking into consideration corporate, system and compliance requirements and legislative changes since the last review was undertaken.

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