

Guidance Note

Driver Awareness and Alert Systems for Contract Partners

Iron Ore

C3 Working Group



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1 Context

This guidance note details the minimum requirements for our Contract Partners to meet compliance with the driver awareness and alert systems as defined in:

- Rio Tinto Group Standard – C3 Vehicles and Driving; and
- RTIO Work Practice - Vehicles and Driving.

Driver awareness and alert systems are technologies embedded in RTIO and have contributed to a steep decline in vehicle and driving related incidents caused by driver behaviour and, fatigued and distracted drivers.

For further information regarding LMV specifications required for RTIO engagement refer to the *Iron Ore, Light Vehicle Specification Guideline (RTIO-HSE-0252299)*.

The process for how to bring a vehicle onto an RTIO site, is outlined in the *Iron Ore (WA) Light Vehicle Mobilisation Guideline (RTIO-HSE-0252159)*.

2 How to use this Guidance Note

Section Heading – Categorises specific subjects

Example – Describes the area of focus

Intent (What)	Requirements (How)	Timing (When)	Responsible (Who)
Defines the required outcome or direction	Provides the specific minimum details to meet compliance	Defines when the requirements need to be complete by	Who is accountable

3 Scope

This Guidance Note applies to the Vehicles of Contract Partners engaged directly by Rio Tinto Iron Ore. It does not apply to RTIO Vehicles.

4 Definitions

Definitions for all other terms are provided in the *Iron Ore (WA) HSEQ Glossary (RTIO-HSE-0063840)*.

Term	Definition
Contract Partner	A contractor or supplier engaged to conduct work on behalf of RTIO.
Driver Awareness & Alert Systems	Electronic driver systems designed to monitor a driver's behaviours, distraction and inattention and alert them when they are not driving in a safe manner. Driver Awareness and Alert Systems include both In Vehicle Monitoring Systems (IVMS) and Driver Fatigue and Distraction Monitoring (DFDM)
Event	An event is where the system detects information outside of the set parameters.
Hire Vehicles	A vehicle that is leased, hired or rented. All hire vehicles, except Mass Transport Vehicles, must meet the requirements of Group Two for those Contract Partners assessed as being in Group Two or above.
Sub-contractor	A party to whom the Contract Partner outsources work or obligations under the agreement with Rio Tinto (e.g contract, PO Terms and Conditions).
Incident	Incident is where the event causes an unwanted outcome.
Long Term Hire	Where the Contract Partner engages a Hire Vehicle for three months or more.

Term	Definition
Mass Transport Vehicles	Vehicles with a capacity of 9 or more occupants. Mass transport vehicles shall be subjected to Group One requirements, whether owned, chartered, leased or hired. Mass transport vehicles must be equipped with Category One requirements from the point of use and are excluded from the three months or greater vehicle hire rule.
Remote or Isolated Work	Works conducted on exploration sites or if travelling more than 100km from a town, mine site or camp, if the drive encounters areas of no mobile coverage.
Prior to Mobilisation	Once contract has been awarded and before the Contract Partner's employees arrive on site
Vehicles	Contract Partner's vehicles that are wholly owned, leased or long-term hire (three months or greater) or, regularly engaged on a minimum frequency once every two weeks or biweekly.

5 Vehicles Requiring Driver Awareness & Alert Systems

5.1 Vehicle Selection Criteria

Intent	Requirements	Timing	Responsible
To provide criteria for vehicle selection	<p>Driver Awareness and Alert systems are mandatory for those Contract Partners in Group One or Two for Vehicles that meet the following requirements:</p> <ul style="list-style-type: none"> • Mass Transport Vehicles with a capacity of 9 or more occupants; • A light mobile Vehicle (up to 4500kg) or a light truck (up to 8000kg) that travels >10,000km annually; or • Where determined by a risk assessment that the driving activity is deemed high risk. 	Prior to mobilising	Contract Partner

5.2 RTIO Group Assessment Criteria

Intent	Requirements	Timing	Responsible
Criteria to allow accurate grouping of Contract Partners	<p>A grouped approach based on risk will be applied as detailed in clause 5.3 below. Each Contract Partner will be assessed annually to establish, which Group they fall into.</p> <p>To ascertain this risk level Contract Partners will provide the following information, when requested by Rio Tinto Procurement:</p> <ul style="list-style-type: none"> • Number and type of Vehicles engaged in the contract (scope of work); • Number of Contract Partners employees that will be driving for the scope of work; • Will any of the Vehicles be involved in 24 hour shift work; • Where specific use requires a person to work in Remote or Isolated Work locations; and • Whether the risk assessment for vehicles and driving identify any high-risk event. 	Prior to mobilisation	Contract Partner

5.3 Group Managed Control

Intent	Requirements	Timing	Responsible
<p>To provide a grouped approach to define requirements</p>	<p>5.3.1 Group One</p> <p>Group One Contract Partners must implement systems to meet the following requirements, as a minimum:</p> <p>IVMS</p> <ul style="list-style-type: none"> • Unique individual driver identification; • Smart firmware features including the ability to start the Vehicle when a valid ID is scanned or immobilise the Vehicle without a valid ID; • Real-time notifications configured to be sent via email, SMS, or app push notifications so line managers are immediately notified if there is an event or incident; • Capability for programmed geofencing; • Vehicle speed monitored by GPS - Vehicle monitoring system to track and report speed using its GPS modules and generate comprehensive speeding reports. • Ability to download data recording to allow for analysis and where required, to assist with incident investigations; • Driver confirmation of system readiness; • Real-time alert provided to driver of the following: <ul style="list-style-type: none"> • Harsh event detection – accelerometer-based including accident, harsh acceleration, harsh braking and harsh cornering; • Speed of Vehicle is above user-defined speed limits based on geofences; • Where the speed limit is over 100km/h the Vehicle's speed must be alarmed at 100km/h; • Driving without a seat belt; and • Driving over 2hrs and 15min without a rest (together, IVMS Event) <p>DFDM</p> <ul style="list-style-type: none"> • Real-time alert provided to driver of the following: <ul style="list-style-type: none"> • a driver fatigue event within 1.5 seconds of eye closure when traveling at 20km/h or greater; • the driver looks away for more than 5 seconds when traveling at 30 km/h or greater; • capture the last 15 seconds and the next 15 seconds of video footage and transmits to an off-vehicle storage location; 	<p>Prior to mobilisation</p>	<p>Contract Partner</p>

- the driver's face cannot be seen by the camera for 2 minutes or where the camera is obstructed (together, DFDM Event);
- Real-time notifications configured to be sent via email, SMS, or app push notifications so line managers are immediately notified if there is an event or incident;
- Ability to download data recording to allow for analysis and where required, to assist with incident investigations; and
- Driver confirmation of system readiness.

5.3.2 Group Two

Group Two Contract Partners must implement systems to meet the following requirements, as a minimum:

IVMS

- Driver confirmation of system readiness;
- Real-time alert provided to driver of the following events:
 - Harsh event detection – accelerometer-based including accident, harsh acceleration, harsh braking and harsh cornering;
 - Speed of Vehicle is above user-defined speed limits based on geofences;
 - Where the speed limit is over 100km/h the Vehicle's speed must be alarmed at 100km/h;
 - Driving without a seat belt; and
 - Driving over 2hrs and 15min without a rest.
- Ability to download data recording to allow for analysis and where required, to assist with incident investigations.

DFDM

- Real-time alert provided to driver of the following:
 - a driver fatigue event within 1.5 seconds of eye closure when traveling at 20km/h or greater;
 - the driver looks away for more than 5 seconds when traveling at 30 km/h or greater;
 - the driver's face cannot be seen by the camera for 2 minutes or where the camera is obstructed; and
 - Driver confirmation of system readiness.
- Ability to download data recording to allow for analysis and where required, to assist with incident investigations.

5.3.3 Group Three

Group Three Contract Partners have a low level of driving risk exposures and as a minimum will:

- Have systems and processes to manage driver fatigue and driver behaviour; and

- Register of Vehicles and drivers.
- 5.3.4 Sub-contractors**
- The following applies to Sub-contractor:
- Where the Contract Partner is categorised in either Group One or Group Two, Sub-contractors must meet Group Two requirements, as a minimum, except:
 - All Sub-contractors Mass Transport Vehicles must meet Group One Requirements.

6 System Management

6.1 Installation

Intent	Requirements	Timing	Responsible
The installation of Driver Awareness and Alert Systems do not impact the safety of occupants	<p>The placement of Driver Awareness and Alert Systems must not compromise the safety of occupants or impede the driver's view;</p> <ul style="list-style-type: none"> • A risk assessment should be undertaken for each type and make of Vehicle to ensure the component placement is safe and will not impact the driver; • The location and fixing methods comply with the Australian Design Rules and Vehicle Standards; and • Ensure the installation process is completed by a competent person and an assessment completed prior to use, to ensure that the Vehicle's power supply or distribution system are not impacted. 	Prior to Mobilisation	Contract Partner

6.2 Event Management

Intent	Requirements	Timing	Responsible
Ensure system integrity is maintained and improvements and lessons learnt are captured	<p>Contract Partners must have a documented process for the management of Driver Awareness and Alert Systems including, as a minimum:</p> <ul style="list-style-type: none"> • Events to be assessed and where required investigated for root cause; • Where Event occurrences are the result of individual non-compliance, a process is in place that considered the significance and frequency of the non-compliance; • Tampering with an IVMS or DFDM systems; • Using a mobile phone whilst driving; • Where an Incident occurs, recorded information is made available in a timely manner to the RTIO Lead Investigator when requested to assist with the investigation process; and • Incident recorded information is made available to RTIO on request in line with confidentiality agreements. 	Event occurrence	Contract Partner

6.3 Reporting

Intent	Requirements	Timing	Responsible
Events and system performance are communicated with line management.	<p>Contract Partners must have a reporting structure in place meeting the following requirements, as a minimum:</p> <ul style="list-style-type: none"> • Provides an overview of all events that have occurred for both IVMS and DFDM; • Ability to conduct a trend analysis on data to identify opportunities for improvement to mitigate risk; and • The ability to provide Incident data as and when requested by RTIO. 	Prior to Mobilisation	Contract Partner

6.4 Privacy

Intent	Requirements	Timing	Responsible
To ensure individual privacy requirements are maintained.	<p>Contract Partners must have in place a system to guide users and managers on the legal requirements for the management of personnel information. As a minimum the system shall:</p> <ul style="list-style-type: none"> • Comply with current legislation requirements; and • Have a process to inform users and managers of these requirements. 	Prior to mobilisation	Contract Partner

6.5 Training

Intent	Requirements	Timing	Responsible
Ensure users and managers of Driver Awareness and Alert Systems are trained and competent	<p>Contract Partners to ensure suitable training is provided to all drivers of Vehicles. As a minimum but not limited to, the training must include:</p> <ul style="list-style-type: none"> • An overview of the systems; • Roles and responsibilities of users and managers; • Privacy requirements including the how information is stored, secured and the process for users to access; and • The process for managing events and the implications of breaches 	Prior to mobilisation	Contract Partner

7 References

Iron Ore Vehicles and Driving Work Practice – RTIO-HSE-0049645;
IVMS Guide Note – RTIO-HSE-0156051;
Journey Management Guide Note – 04164472;
Iron Ore, Light Vehicle Specification Guide Note RTIO-HSE-0252299; and
Iron Ore (WA) Light Vehicle Mobilisation Guideline RTIO-HSE-0252159.

8 Associated Documents

Group Standard, C3 Vehicles and Driving – HSEC-B-15

9 User Feedback and Continuous Improvement

We rely on your expertise to continuously improve our information

What do you think?

- Is this Guidance Note still relevant?
- Does this Guidance Note need updating?
- Can we further improve quality?

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