

# SAFETY AND HEALTH STANDARD VEHICLES AND DRIVING

Effective Date: 12/17/16	Standard 15.3	Document Number: KUCSH0032	Rev: 09
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## 15.3.1 INTRODUCTION:

15.3.1.1 This standard establishes the minimum requirements for safely operating vehicles and mobile equipment on or off KUC property. This standard applies to all vehicles, including mobile equipment owned and / or operated by KUC or its contractors, that is used on or off-site, and to the personnel who operate such equipment.

## 15.3.2 DEFINITIONS:

15.3.2.1 **Class 2 Strobe Light** – Hazard warning strobe light certified by the Society of Automotive Engineers. “Cite law and safety concern”

15.3.2.2 **Heavy Mobile Equipment (HME)** – Mobile equipment specially designed for executing mining tasks.

15.3.2.3 **Light Duty Vehicle (LDV)** – Any land-based vehicle with a gross vehicle weight rating less than 10,000 pounds (example: van, pickup, SUV, etc.).

15.3.2.4 **Medium Duty Vehicle (MDV)** – Any land-based vehicle with a gross vehicle weight rating greater than 10,000 pounds (example: service truck, bus, crane truck, etc.).

## 15.3.3 REQUIREMENTS:

15.3.2.1 Comprehensive risk analyses shall be conducted to identify the factors that impact vehicles and driving safety. The risk analyses will:

- Include all aspects of vehicles and driving and will have up-to-date action plans in place to manage identified issues. (The plans will be reviewed periodically to improve vehicle and driving safety)
- Identify the conditional and behavioral factors that impact vehicles and driving safety at KUC (See Risk ID: 64).
- Outline the protocol for site driving and licensing of KUC employees and contractors (See Risk ID: 1382).
- Review the elements of the Rio Tinto Light Duty Vehicle Guideline (See Risk ID: 1383).

15.3.2.2 All vehicles used for work purposes require a risk assessment. The risk assessment must be repeated when / if permanent modification

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to the vehicle's function or a major component modification occurs. Risk assessments may be performed on a per-fleet basis for like-vehicles. Risk assessment documentation will be kept on file at each facility and will be updated as required. A VEHICLES & DRIVING RISK ASSESSMENT FORM is attached as Exhibit 15.3.1. The assessment must:

- Involve a representative from the operation and maintenance groups who will use the vehicle; and
- Address all aspects of safe operation including mounting and dismounting, handling, driver vision, brake failure, tire blow-outs, seat belts, fire extinguishers / suppression systems and access / egress for operators, maintainers and passengers, roll-over protection and ergonomics.

- 15.3.2.3 The operator must complete a pre-operation inspection checklist before the equipment is placed into operation on each shift. The inspection checklist will be based on the risk assessment for that fleet or unit. When defects make continued operation hazardous, the equipment shall be taken out of service and placed in a designated area posted for that purpose, or an alternative effective method of marking / tagging the unit shall be used to prohibit further use until the defects are corrected. Equipment will not be operated if the pre-shift inspection identifies a serious or potentially serious safety problem. Defects on vehicles or mobile equipment, affecting safety that are not corrected immediately shall be reported to the appropriate supervisor and recorded. Inspection cards will remain on file for six months.
- 15.3.2.4 All vehicles and mobile equipment must be fitted with fixed seats and safety belts for the driver and all passengers. The driver and all passengers must wear their seat belt at all times.
- 15.3.2.5 All light vehicles used for work purposes must comply with all aspects of the Rio Tinto Light Vehicle Guidelines unless the risk assessment specifies otherwise (See Risk ID #1383).
- 15.3.2.6 In general, all vehicles and mobile equipment used for work purposes that are capable of exceeding the lowest posted speed limit must be fitted with a functional speedometer. Exceptions to this requirement are made for those types of equipment where operating speeds are strictly controlled and enforced by site operating procedures / policies and site licensing requirements.
- 15.3.2.7 All persons required to drive / operate vehicles at KUC must comply

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with the requirements outlined in the KUC Risk Assessment - Protocol for Site Driving and Licensing of Employees and Contractors (Risk ID #1382) and at a minimum, have :

- A valid State or Civil driving license and depending on the vehicle, a valid Department of Transportation Commercial Drivers License, and
- A site specific license when required to drive at the Mine or Tailings Impoundment.
- Certain exceptions to these licensing requirements may be granted in rare circumstances at the sole discretion of KUC.

- 15.3.2.8 All accident / incidents that result in an occupational injury or illness and / or damage to physical assets and near miss incidents shall be promptly reported and investigated. (See Safety & Health Standard 6.1) In the event of an off-site accident in a company owned vehicle refer to Exhibit 15.3.2 Off-site Vehicle Accidents.
- 15.3.2.9 Vehicles and mobile equipment should be kept free of excess dirt, grease and oil. Cabs and beds will be kept clear of loose items such as pop cans, lunch pails, unsecured fire extinguishers, rags, etc.,. Windows are to be cleaned as often as necessary. Periodic cleaning will be completed as needed.
- 15.3.2.10 Prior to entering shop facilities for repair work, mobile equipment is to be cleaned of debris build-up.
- 15.3.2.11 Beds of trucks are **not** to be used as refuse containers. Only necessary equipment may be carried and is to be neatly stored. Tool lockers and boxes are to be organized and free of debris. However, direct hauling of debris to proper disposal container / landfill is acceptable where the load is properly secured and covered.
- 15.3.2.12 Fundamentally Stable Parking: Mobile equipment shall not be left unattended unless properly secured – unable to move under its own energy, or the influence of gravity. All operators will park their vehicles in a position that will not endanger personnel or equipment. **Then to satisfy the requirements of fundamental stability the operator will:**
1. Place the transmission in “park” or low gear.
  2. Apply the park break
  3. Turn off the engine, and
  4. If the vehicle is not positioned against a suitable berm, in a parking ditch, or other designed immobilizing device, place a wheel chock on a tire in the direction the vehicle will roll.

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Fundamentally stable parking requirements for off-road production, construction, and other specialized mobile equipment will be determined via risk assessment for each equipment class and applied universally across all plant sites.

- 15.3.2.13 No vehicle may tow, or be towed, unless it is engineered to do so. Determination will be made in the risk assessment whether a vehicle can tow or be towed. Rigging or lifting equipment will not be used for towing applications.
- 15.3.2.14 Speed limits and signage will be set in accordance with generally accepted road safety standards. Where there are established speed limits and traffic rules, they must be reviewed regularly and enforced. Traffic rules, signals, and warning signs shall be standardized at each site.
- 15.3.2.15 The use of any cellular device while operating any vehicle on company property or while on company business is prohibited.

### **DRIVING IN THE MINE**

- 15.3.2.16 No person may operate a vehicle inside the mine area unless he / she has a pit license or is continuously escorted. Because of the constantly changing mine conditions, no person shall be licensed to drive in the mine unless they are required to do so more than once in a two-week period. Site licensed employees and contractors who are away from the workplace for longer than 14 consecutive calendar days or 10 working days must receive a reorientation prior to returning to work and operating vehicles in the Mine. Renewal of site licenses will be based on an assessment of competency to drive and / or operate equipment. The frequency of assessment will be either annual, or derived from a risk assessment for each vehicle type.
  - All light and medium duty vehicles operating on haul roads must have:
    - Headlights on at all times.
    - An amber strobe light on at all times. Strobe lights must meet or exceed Class 2 certification.
    - A white lighted whip flagpole with a whip flag that extends at least 12' off the ground and is visible from all directions.
    - Clear identification on sides, rear, and roof of the vehicle with letters / numbers at least A4 in size (8.3 x 11.7 in).

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- Vehicles or equipment (other than those being loaded as part of the operations) that enter a shovel pit or approach a manned shovel, dozer, front-end loader or blasthole drill must make positive (two way) contact with the operator of that equipment prior to entering the working area of the equipment. All foot traffic entering a shovel pit or approaching a manned shovel, dozer, front-end loader or blasthole drill must make positive (two way) contact with the operator of that equipment prior to entering the working area of the equipment.
  - Positive (two-way) contact must be made at least 50 meters (160 feet) away from the equipment or before passing under a cable bridge, whichever is greater.
- Positive contact does not have to be made when:
  - A haul truck is entering an area to be loaded.
  - A haul truck is passing near a dozer in the dump area.
  - An area is physically demarcated by a berm or other barrier so as to allow passing.
  - A vehicle is passing (rather than "approaching") a shovel dozer, front-end loader or blasthole drill in transit to another destination, provided that pass is not made within the immediate working radius of the equipment being passed.
- Overtaking (passing) in the pit area is allowed subject to the exercise of safe and prudent driving practice. No vehicle will overtake a haul truck or water truck on the blind side without first making positive contact with the driver.
- Vehicles may not pass at any time within a road intersection, at the crest of a hill, or under any circumstance where vision is restricted.

### **DRIVING ON THE TAILINGS IMPOUNDMENT**

- 15.3.2.17 No person may operate a vehicle on the tailings impoundment unless he / she has a tailings impoundment license or is continuously escorted. Renewal of site licenses will be based on an assessment of competency to drive and / or operate equipment. The frequency of assessment will be derived from a risk assessment for each vehicle type, but will not exceed four years. (See MSHA Petition for Modification Docket No. M-86-20-M)
- Each access point from the outer roadway area to the impoundment roadway shall have posted warnings that the

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impoundment roadway is not bermed and that caution must be used. The impoundment roadway shall not be used as a thoroughfare and traffic shall be limited to a one-way direction.

- The impoundment roadway speed shall not be more than 15 miles per hour, depending on weather, road, and visibility conditions. Speed limit signs shall be posted at appropriate entrance locations to the impoundment roadway.
- Reflective delineators shall be installed at no more than 500-foot intervals along the impoundment roadway and shall be visible, under normal weather conditions, from equipment using the roadway.

## **15.3.3      TIRE AND RIM SAFETY**

- 15.3.3.1      Tire and rim safety requirements applies to tires and rims of size 24 inch and greater. It is supported by the tire and rim safety work cycle
- 15.3.3.2      Operations must establish a Tire management plan that is approved by the senior manager at the operation and reviewed every 12 months.
- 15.3.3.3      There must be demonstrated job competencies and safe work procedures for all tire maintenance, servicing activities and tire fire emergency response. The competencies must specify the frequency for re-certification, which must be no less than every three years.
- 15.3.3.4      No person may approach a vehicle within 24 hours of; lightning strike, contact with high voltage electricity, tire fire. An exclusion zone of 1000 feet of a tire fire must be established and only be accessed by emergency service personnel that are shielded while fighting the fire.
- 15.3.3.5      Restricted work zones (RWZ) and exclusions zones must be established for the tire installation, removal and handling processes.
- 15.3.3.5      All tire and rim handling equipment must have fall back prevention in place prior to anyone entering the RWZ.
- 15.3.3.7      Tires with split rims must be deflated to zero and other tires to a nominal pressure no greater than 5psi prior to removal of any retaining devices. In a dual assembly both tires must be deflated.
- 15.3.3.8      Tire inflation is subject to the following requirements:
- Remote inflation must be used for all tire inflation

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- Where the risk of ejection of components exists barricading must be in place
- A tire must not be left unattended during inflation
- Tires that have run at less than 80 percent cold inflation pressure must not be re-inflated. Both tires in a dual assembly must be dismantled and inspected.

15.3.3.9 No welding, cutting or application of heat sources to a rim or wheel must be done while the rim or wheel is fitted with a tire - whether inflated or deflated.

15.3.3.10 A periodic testing and/or inspection regime must be in place for tires, rims/wheels and assemblies.

15.3.3.11 All tires, rims/wheels must be made unserviceable when deemed unfit for service or before being sent off site for disposal.

15.3.3.12 A tracking system must be in place to track the lifecycle of tires, rims/wheels.

## **15.3.4**      **RESPONSIBILITIES**

15.3.4.1 Operators are responsible for conducting and documenting the appropriate pre-operational inspection prior to operating the vehicle. Operators are responsible for the routine cleanliness of cabs, platforms and windows of vehicles.

15.3.4.2 It is the responsibility of the driver to ensure that all passengers wear their seat belts, at all times when the vehicle is in operation.

15.3.4.3 Each KUC facility shall have a system in place to ensure that the renewal of site licenses will be based on an assessment of competency to drive and or operate the equipment. The frequency of assessment will be either annual, or derived from a risk assessment for each vehicle type.

## **15.3.5**      **TRAINING**

15.3.5.1 No person may drive a vehicle unless he / she is trained, competent, tested and licensed to operate that vehicle. The training must address hazards assessed for that vehicle or fleet, and the task(s) for which it is to be used.

15.3.4.2 No person may operate a vehicle inside the mine area unless he/she has completed the pit driver training or is continuously escorted.

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- 15.3.4.3 Any person driving or operating equipment on the Tailings Impoundment shall receive and complete the Tailings Impoundment training requirements defined in the KUCC MSHA Petition for Modification, or be accompanied by a person that has received the specified training.

### REFERENCES:

- MSHA 30 CFR Part 56; Subpart M. 14100a.
- MSHA Petition for Modification Docket No. M-86-20-M (Tailings Impoundment)
- Rio Tinto Safety Standard C3 Vehicles and Driving
- KUC Risk Analysis ID# 64, 1382 and 1383
- Rio Tinto Light Vehicle Guidelines
- Rio Tinto Variance C3. Vehicles and Driving 5.3(c) Positive Contact and Passing
- KUC Safety and Health Standard 6.1 Accident / Incident Investigation & Case Management

### REVISION HISTORY:

MOC#	Description of Change	Prepared By	Date
TS00125	Addition of Off -site Vehicle Accident procedure	KUC Safety and Health Standards Committee	07 / 2007
10919	Changes submitted by the V&D committee to update standard to comply with the Rio Tinto new tire safety requirements with the addition of paragraph 15.3.3 "TIRE AND RIM SAFETY". Also, updated referenced Risk Assessment ID numbers, and Document number.	KUC Safety and Health Standards Committee	11/ 2009
34611	Updated Fundamentally Stable Parking requirement and Mine vehicle definitions	KUC Safety and Health Standards Committee	10/2016



Exhibit 15.3.1

**KENNECOTT UTAH COPPER  
VEHICLES & DRIVING RISK ASSESSMENT FORM**

TYPE:  **Level 1 Pre-Task Hazard Assessment#**

DESCRIPTION:      Make:

                                 Model:

                                 Year:

                                 Load Rating:

INDIVIDUAL UNIT      UNIT NUMBER

FLEET                      UNIT NUMBERS

APPROVED EQUIPMENT FUNCTION:

**REASON FOR ASSESSMENT:**

- Initial Assessment
- New Equipment
- Existing Equipment
- Periodic Review
- Modified Equipment (Explain)

**Check all equipment that is currently fitted. Equipment that is not fitted must be installed or included in the Risk Assessment with an Action Plan. If not necessary indicate in Risk Assessment and why.**

	Fitted	Date Installed		Fitted	Date Installed
Anti-slip surfaces	<input type="checkbox"/>		Mirror driver side	<input type="checkbox"/>	
Backup alarm	<input type="checkbox"/>		Mirror passenger side	<input type="checkbox"/>	
Backup lights	<input type="checkbox"/>		Oil pressure gauge / alarm	<input type="checkbox"/>	
Brake lights	<input type="checkbox"/>		Over speed alarm	<input type="checkbox"/>	
Buggy whip (flag)	<input type="checkbox"/>		Parking brake	<input type="checkbox"/>	
Buggy whip (light)	<input type="checkbox"/>		Passenger seat belt(s)*	<input type="checkbox"/>	
Driver's seat (fixed)	<input type="checkbox"/>		Passenger seat(s)* (fixed)	<input type="checkbox"/>	
Driver's seat belt	<input type="checkbox"/>		Retarder	<input type="checkbox"/>	
Emergency flashers	<input type="checkbox"/>		ROPS	<input type="checkbox"/>	
Engine temp. gauges / alarms	<input type="checkbox"/>		FOPS	<input type="checkbox"/>	
Exhaust system	<input type="checkbox"/>		Service brakes	<input type="checkbox"/>	
Fire extinguisher	<input type="checkbox"/>		Speedometer	<input type="checkbox"/>	
Fire suppression system	<input type="checkbox"/>		Power Steering	<input type="checkbox"/>	
First aid kit	<input type="checkbox"/>		Taillights	<input type="checkbox"/>	
Fuel gauge / alarm	<input type="checkbox"/>		Towing equipment	<input type="checkbox"/>	
Handrails / platforms	<input type="checkbox"/>		Turn signals	<input type="checkbox"/>	
Headlights	<input type="checkbox"/>		Two-way radio	<input type="checkbox"/>	
Horn	<input type="checkbox"/>		Wheel / track chocks	<input type="checkbox"/>	
Lights (flood / spot)	<input type="checkbox"/>		Windshield wipers / washer	<input type="checkbox"/>	
Limit Switches	<input type="checkbox"/>		Other:	<input type="checkbox"/>	
Lockout / tagout mechanism	<input type="checkbox"/>		Other:	<input type="checkbox"/>	

\*Number of passengers allowed on equipment:

NOTE: A KUC Level 1 on-line Risk Assessment is required to be completed for all vehicles types used for work purposes.

## Exhibit 15.3.2

**Off-site Vehicle Accidents – Company Owned Vehicle**

Responsibility for ensuring that the following actions are carried out rests with the driver, if he/she is capable of doing so. In those cases where the driver is unable to attend to these matters, the responsibility rests with any other KUC / Rio Tinto employee present at the accident.

- Contact police.
- Do not admit any liability (even if the driver believes it was his/her fault).
- Do not make any statements to other parties or witnesses other than the police.
- Exchange information at the scene:
  - Names,
  - Contact information,
  - Insurance,
  - Driver's license details,
  - Vehicle description and license plate number.
- Obtain names and addresses of witnesses.
- Record details of any other vehicle/s involved.
- Take pictures, if possible – camera phones are handy at the scene.
- Record details of location, time and nature of the accident.

**After an Accident**

The driver or any other KUC employee involved in an accident in a company vehicle must inform their manager and the Rio Tinto Risk Management Office as soon as possible after the accident and complete a Rio Tinto incident report form (See Exhibit 15.3.3). All vehicle accidents must be investigated in accordance with Standard 6.1 Accident / Incident Investigation.

If there is damage to the KUC vehicle, and the vehicle is safe to operate, return it to the facilities and contact Kennecott Operational Services (KOS) who will arrange for repairs.

If the vehicle is not safe to operate, if possible, call KOS to arrange for towing. If the Police arrange the towing, get the appropriate information and contact KOS for follow-up.

All personnel should be aware of the trauma that can be experienced by people involved in accidents or when rendering assistance. This trauma may surface some time after the accident. It may be appropriate to consider actions such as: counseling, escorting the person home or to medical attention, or reporting the situation to your manager.

Rio Tinto's auto coverage is liability based – it provides coverage for damage to other's property and personal injury. Physical damage to vehicles is not covered under the policy. Due to limits within the policy, KUC is considered 'self-insured' and is responsible for the expense.

Exhibit 15.3.3

## Rio Tinto Auto Incident Report

All auto incidents/accidents must be reported. Provide a complete report to your supervisor and to Risk Management. **Risk Management contact:** Marla D'Antonio [marla.dantonio@riotinto.com](mailto:marla.dantonio@riotinto.com) Phone: +1 303 713 5362

Field Code Ch

**INCIDENT SITE:**

Where? (city & zip code)	When? (date & time):	
Weather conditions:	Road conditions:	
Speed before incident:	Lights On or Off	

**PARTIES INVOLVED:**

<b>Rio Tinto driver #1:</b>	Supervisor's name:
Business unit & cost center	Supervisor's phone: ( )
Vehicle:(yr/make/model)	License plate #:
Damage incurred:	Vehicle Owner:
Vehicle current location?	

<b>Driver #2 name:</b>	Driver's Lic. #:	State:
Home address:	Phone number:	( )
City /St/ Zip:	Ins. Policy #	
Insurance company:	Ins company phone:	( )
Vehicle:(yr/make/model)	License plate #:	
Damage incurred:	Vehicle Owner:	

<b>Witness #1 name:</b>	Phone number:
Involved how?	( )
<b>Witness #2 name:</b>	Phone number:
Involved how?	( )

<b>Police officer's name:</b>	Citation issued?
Officer's department:	Against whom?
Officer's ID number:	What charge?

**INJURIES:**

	Name	Address	Phone
<b>Injured #1</b>			( )
Injuries / Hospital:			
<b>Injured #2</b>			( )
Injuries / Hospital:			
<b>Injured #3</b>			( )
Injuries / Hospital:			

**DESCRIBE HOW ACCIDENT OCCURRED:**

**SKETCH A DIAGRAM:** Include a hand drawing including street names, direction of vehicles, and position at contact.

**ATTACHMENTS:**

- Pictures     Police reports     Repair estimate(s)

**Driver's signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Supervisor's signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_