

SECTION D: ENVIRONMENTAL AND SOCIAL CONSTRUCTION MANAGEMENT PLANS

CHAPTER D11: TRANSPORT CONSTRUCTION MANAGEMENT PLAN

Contents

11	TRANSPORT MANAGEMENT PLAN	2
11.1	INTRODUCTION	2
11.2	OBJECTIVES	2
11.3	SCOPE	2
11.4	SOURCES OF IMPACT	3
11.5	PROJECT STANDARDS.....	3
11.6	ROLES & RESPONSIBILITIES	4
11.7	MITIGATION MEASURES AND MANAGEMENT CONTROLS	5
11.8	TRAINING	18
11.9	MONITORING	18
11.10	KEY PERFORMANCE INDICATORS.....	20

Tables

Table 11.1:	Mitigation Measures and Management Controls - Transport.....	6
Table 11.2:	Monitoring Measures – Transport	19
Table 11.3:	Key Performance Indicators	20

11 TRANSPORT MANAGEMENT PLAN

11.1 INTRODUCTION

This Transport Construction Management Plan is designed to control and minimise potential negative impacts within the Project's area of influence that are associated with Project vehicle and aircraft movements. The plan recognises that some adverse impact will result from the movement of large numbers of vehicles for a Project of this size and sets out a systematic approach to minimise environmental and social impacts and health and safety risks through the implementation of good practice procedures across the Project, as identified within the ESIA.

This Plan also details measures for the periodic monitoring of: transport related environmental impacts on vegetation, livestock and local communities; the implementation of control measures; and public perception towards traffic management issues during the construction phase.

11.2 OBJECTIVES

The objectives of this Management Plan are to:

- Outline the applicable standards with regards to road traffic management (primarily Mongolian standards);
- Define the operational procedures, controls and mitigation measures for transportation;
- Define roles and responsibilities;
- Define monitoring and reporting procedures; and
- Define training requirements.

11.3 SCOPE

The Oyu Tolgoi Project is committed to comply with various environmental standards which are managed through a suite of topic specific Management Plans as described in *Chapter D1: Environmental and Social Management Plan (ESMP) Framework*. The ESMP Framework defines standards for Management Plans for the following phases of the Project (see *Chapter D1: ESMP Framework* for the definition of these phases):

1. Construction Phase
2. Operations Phase

Transport methods include road and air transportation. Materials transportation to and from the Project site occurs primarily by road and personnel will be transported by both road and air. More specifically, the following modes of transport are apparent at Oyu Tolgoi:

- Import and export of equipment and materials to/from the site;
- Transport of personnel from/to the Project Area by road and air;
- Movement of personnel within the Mine Licence Area/Project Area of Influence; and
- Movement of equipment and materials within the Mine Licence Area/Project Area of Influence.

This Transport Management Plan is part of the suite of construction phase Management Plans. The plan covers all Construction Phase activities that have the potential to result in transport induced impacts (see *Section 11.4* for further details). Particular reference is made here to the following construction phase Management Plans that have direct cross-linkages to transport:

- The Flora and Fauna Management Plan (*Chapter D6*) (e.g. in relation to dust generated by dust and off road driving);
- The Hazardous Materials (*Chapter D12*) and the Petroleum & Fuels (*Chapter D5*) Construction Management Plans (labelling and transportation requirements applicable to the transportation of hazardous materials including diesel and kerosene);
- Noise Management Plan (*Chapter D3*) (noise from trucks; impact on community members);

- Emergency Response Construction Management Plan (*Chapter D20*);
- Atmospheric Emissions Construction Management Plan (*Chapter D2*) (exhaust emissions from trucks); and
- the Community Health, Safety and Security Construction Management Plan (*Chapter D18*) (in relation to road traffic accidents).

11.4 SOURCES OF IMPACT

Road traffic

During the construction phase, the road from the Mine Licence Area to the Chinese border at Gashuun Sukhait is being constructed/upgraded¹ to enable the significant number of vehicle movements required to bring construction materials to the Project site. During the construction phase, vehicles will use the improved earth road that will be replaced by the sealed road.

Transport impacts occur along the Oyu Tolgoi to Gashuun Sukhait road and may also occur along other supply roads connecting the Project site with Ulaanbaatar, Khanbogd, the fuel depot adjacent to the Trans Mongolian Railway at Choir and local roads. Current traffic volumes along the Oyu Tolgoi to Gashuun Sukhait road are less than 400 vehicle movements per day and will decline significantly after construction is completed. In the long-term, traffic volumes may reach 1,600 vehicle movements per day by 2030 – by which time Oyu Tolgoi related traffic will represent only a small proportion of the overall traffic volume.

Potential impacts associated with Project vehicles, that this plan is seeking to minimise, include:

- Increased risk of road traffic accidents resulting in fuel or cargo spillage;
- Increased risks of collisions with other vehicles or pedestrians resulting in injury or death;
- Dust generation (with knock-on health, safety and ecological impacts);
- Increased risk of collision with fauna and herd animals;
- Deterioration of local roads resulting from heavy equipment usage and high levels of vehicular traffic;
- Physical barrier to migratory animals; and
- Air emissions from combustion engines (addressed within the Air Quality Construction Management Plan).

Air traffic

Transport impacts from air traffic are limited to the noise from aircraft and surface transportation of personnel between the airport and Mine Licence Area (a distance of approximately 7 km for the temporary airstrip).

- Noise during take-off and landing; and
- Road traffic along the access road between the airport and the Oyu Tolgoi Mine Licence Area.

Noise impacts are addressed within *Chapter D3: Noise Management Plan* whereas the controls put in place via this plan are equally applicable to road traffic between the site and airport.

11.5 PROJECT STANDARDS

The Project is committed to comply with all Mongolian laws and standards for the management of road and air traffic for all applicable Project activities.

Mongolian Laws

¹ Oyu Tolgoi will upgrade and seal the existing Oyu Tolgoi to Gashuun Sukhait road with works due to be completed in 2012. Oyu Tolgoi will also contribute to the maintenance of other roads that are heavily-used by the Project such as the Oyu Tolgoi to Khanbogd road.

- Law on Auto Transport (in force 15 June 2006);
- Law on Auto Road (in force 20 June 2006);
- Traffic Safety Law (in force 30 April 1996); and
- Traffic Rules (in force 2 September 2010).

Mongolian Standards

The following Mongolian standards are also applicable to the Project:

- Air traffic – Package Rules for Civil Aviation;
- MNS 5831:2007 – Transportation of Freight and Passenger Between Countries;
- MNS 4598:2003 – Requirement for Technical Condition of Transportation Means;
- MNS 5345:2003 – Large, Length and Heavy Freight Transportation. Classification and General Requirement;
- MNS 4978:2000- Dangerous Freight. Classification and General Technical Requirement;
- MNS 4585:2007 Mongolian National Air Quality Standards – Air Quality Parameters (also includes noise); and
- Mongolian emission standards for vehicles including: emissions from petrol engines (MNS 5031:2003) and emissions from diesel engines (MNS 5014:2003).

Company Standards

- Rio Tinto HSE. Standard C3 – Vehicles and Driving, December 2008.

International Good Practice Guidance and Legislation

The following international good practice guidance and legislation have also been taken into account:

- IFC Environmental Health and Safety Guidelines for Mining (December 2007), includes requirements for the transportation of hazardous materials including explosives;
- IFC General Environmental Health and Safety Guidelines (April 2007);
- Good practice manuals developed by the Global Road Safety Partnership for road traffic injury prevention including manuals for:
 - Drinking and Driving;
 - Seat Belts and child restraints; and
 - Speed management.
- The 2002 Road Transport Directive 2002/15/EC (the European Road Transport Working Time Directive).

11.6 ROLES & RESPONSIBILITIES

In addition to the specific responsibilities identified in *Table 11.1* below, general responsibilities for noise and vibration control are defined below.

Overall lines of responsibility between Oyu Tolgoi and the Contractors are described in *Chapter D1: ESMP Framework*. More specifically for noise the following roles and responsibilities apply:

Oyu Tolgoi Environment Department will:

- Have overall responsibility for the implementation of this Management Plan; the Oyu Tolgoi Environment Manager will work with the Oyu Tolgoi HSES Deputy Director;
- Provide guidance to contractors and other Oyu Tolgoi departments on appropriate road traffic management;
- Employ Environmental Officers who will monitor Oyu Tolgoi and Contractors' performance (see audit requirements in *Table 11.2*);

- Work with the Oyu Tolgoi and Contractor Health and Safety and Procurement Departments to ensure reputable haulage firms are used; and
- Review and update this Construction Management Plan as required.

Principal Contractor:

- shall be responsible for the integration of the requirements detailed in this plan within their operating procedures and plans and ensuring its workforce is adequately trained in the requirements of this and their own Transport Plans.

Workplace supervisors (typically a nominated contractor representative overseeing a particular task) shall be responsible for ensuring the requirement of this and any associated Contractor plan is implemented, and therefore is responsible for:

- ensuring vehicles are fit for purpose, adequately maintained, driven in a safe manner on site and are accompanied with all necessary documentation.

A grievance management system has been established to deal with any complaints received from local communities or other stakeholders. Responsibility for transport related complaints is set out in *Chapter D14: Stakeholder Engagement Plan*.

11.7 MITIGATION MEASURES AND MANAGEMENT CONTROLS

The measures for effective management of road vehicles and aircraft that are to be implemented during the Construction Phase are described in the table below. Contractors are required to incorporate the measures outlined in the table below within their own working procedures.

Table 11.1: Mitigation Measures and Management Controls - Transport

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
Tr01 - a	Route selection	General	All transportation will be undertaken along pre-designated routes that have previously been surveyed by Oyu Tolgoi or its contractors. Oyu Tolgoi will approve all designated transportation routes.	Oyu Tolgoi Environment Department	Audit and inspection programme - evidence of meetings and survey reports.	Principal Contractors will only use pre designated routes
Tr01 - b	Route selection	General	Oyu Tolgoi will ensure that consultation is undertaken with local communities, police, military and emergency services along transportation routes routinely used by Oyu Tolgoi. Oyu Tolgoi will provide local community representatives and government authorities with a summary of driving practices adopted by Oyu Tolgoi.	Oyu Tolgoi CSP	Audit and inspection programme - evidence of meetings and survey reports.	Principal Contractors will only use pre designated routes
Tr01 - c	Route selection	General	Oyu Tolgoi will discuss an outline of the emergency response plans and procedures applicable to transport with local emergency services and local administrations. Outlines of the applicable emergency response plans will be included in public consultation and disclosure activities.	Oyu Tolgoi CSP	Audit and inspection programme - evidence of meetings and survey reports.	Principal Contractors will only use pre designated routes
Tr01 - d	Route selection	General	Pre-construction building condition assessments will be undertaken along principal transport routes. The assessments will be on buildings considered to be at potential risk from transportation vibration, and for other culturally sensitive buildings and structures adjacent to the routes. Route condition assessments will be undertaken on an annual basis as a minimum and specific inspections of river crossings will be undertaken after extreme weather events and at the end of the rainy season (see also section 9, Monitoring).	Oyu Tolgoi Environmental Department Oyu Tolgoi Infrastructure	Audit and inspection programme - evidence of meetings and survey reports.	Principal Contractors will only use pre designated routes
Tr01 - e	Route selection	General	In the event that new roads are required during the construction phase the selection of the road alignments will avoid indicator species, herder camps and riverbeds as much as reasonably possible.	Oyu Tolgoi Environmental Department	Audit and inspection programme - evidence of meetings and survey reports.	Principal Contractors will only use pre designated routes
Tr02-a	Protection of	Animal sightings	Refer to Biodiversity Action Plan C6.11.1 which includes all	Oyu Tolgoi Env	Visual	See also the

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
	flora and fauna		actions to mitigate impacts on flora and fauna: Oyu Tolgoi will construct appropriate and sufficient underpasses (at ecologically suitable locations such as river beds, approximately every 6 km along the Oyu Tolgoi to Gashuun Sukhait road, as long as practically possible but minimum 12 m long, at least 4.5 m high along the whole length, with solid sides at least as high as highest Oyu Tolgoi vehicles, a natural, non-waterlogged substrate with no obstacles, affording a view of the horizon from either side, and with earth berm along edge of road either side of underpass to funnel wildlife towards underpasses; construction expected to commence in 2013 and be finished before handover to the Government of Mongolia.	Department Principal Contractors	confirmation that signs are in place Animal sightings log Design and completion of animal underpasses as per BAP.	Flora & Fauna Management Plan,
Tr02-b	Protection of flora and fauna	Animal sightings	All sightings of and incidents involving species of conservation interest will be recorded by the Environment Department will also be reported. Wildlife and domestic livestock mortalities caused by Oyu Tolgoi vehicles and activities will be recorded (e.g. from vehicle strikes or plant accidents).	Oyu Tolgoi Environment Department Principal Contractors	Visual confirmation that signs are in place Animal sightings log	See also the Flora & Fauna Management Plan,
Tr02-c	Protection of flora and fauna	Animal sightings	Construction traffic will be controlled and drivers instructed to follow designated routes. Oyu Tolgoi vehicles will be equipped with GPS traffic management system supervised by control room.	Oyu Tolgoi Environment Department Principal Contractors	Visual confirmation that signs are in place Animal sightings log	See also the Flora & Fauna Management Plan,
Tr02-d	Protection of flora and fauna	Animal sightings	Areas where herders and wildlife cross the Oyu Tolgoi-Gashuun Sukhait road will be identified and signage will be erected to alert drivers of possible animal crossings. A total of 11 animal crossing points were identified during consultations with affected parties and these have been mapped and included in the detailed engineering design for the road. Where other tracks used by herders and wildlife cross the Oyu Tolgoi-Gashuun Sukhait road, road junctions will be constructed, with road markings to clearly demonstrate the right of way.	Oyu Tolgoi Environment Department Principal Contractors CSP	Visual confirmation that crossings and signage are in place Animal sightings log	See also the Flora & Fauna Management Plan,
Tr03-a	Protection of flora and fauna	Driving standards	Training will be provided to Project employees, particularly drivers of vehicles, in the importance of protecting fauna and where and when fauna are likely to be seen.	Oyu Tolgoi Environment Department Principal	Training records	See also the Flora & Fauna Management Plan, FF14 – 19.

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
				Contractors		See also the Flora & Fauna Management Plan, FFM02 – 04.
Tr03-b	Protection of flora and fauna	Driving standards	Driver training will include clear procedures for driving when animals (herd or wild) are observed close to or on the road.	Oyu Tolgoi Environment Department Principal Contractors	Training records	
Tr03-c	Protection of flora and fauna	Driving standards	The risk of road kills will be minimised through the regulation of speed limits along the Oyu Tolgoi to Gashuun Sukhait road, through driver training and competency assessment and through the maintenance of Oyu Tolgoi vehicles and GPS traffic management system.	Oyu Tolgoi Environment Department Principal Contractors	Training records	
Tr03-d	Protection of flora and fauna	Driving standards	All Oyu Tolgoi drivers will be required to report road kill incidents to the Oyu Tolgoi Environment Department	Oyu Tolgoi Environment Department Principal Contractors	Training records	
Tr04-a	Protection of flora and fauna	Airport	The airport will be operated to current International Civil Aviation Organisation (ICAO) standards applicable to the protection of birds and other animals. Measure to minimise impacts to wildlife include:	Oyu Tolgoi Environmental Department	Audit and inspection	See also the Flora & Fauna Management Plan.
Tr04-b	Protection of flora and fauna	Airport	Airport runways will be clear at all times when aircraft are landing or taking off- airport is fenced.	Oyu Tolgoi Environmental Department	Audit and inspection	See also the Flora & Fauna Management Plan.
Tr04-c	Protection of flora and fauna	Airport	As far as reasonably practical, the airport management will ensure large bird nesting and roosting do not occur within the vicinity of approach and take-off routes, aircraft parking areas, taxiways and other facilities	Oyu Tolgoi Environmental Department	Audit and inspection	See also the Flora & Fauna Management Plan.
Tr04-d	Protection of flora and	Airport	Oyu Tolgoi will carry out investigation and research into any bird kills that occur due to the operation of .the Oyu Tolgoi airport This	Oyu Tolgoi Environmental	Audit and	See also the Flora & Fauna

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
	fauna		will include an assessment of the timing of the incident and the effectiveness of mitigations measures.	Department	inspection	Management Plan.
Tr04-e	Protection of flora and fauna	Airport	Consideration of the use of bird scarers prior to an aircraft landing or taking off if required	Oyu Tolgoi Environmental Department	Audit and inspection	See also the Flora & Fauna Management Plan.
Tr05	Vehicle standards	Dust (cargo)	In order to minimise the dust from truck cargoes: <ul style="list-style-type: none"> ▪ Trucks will not be overloaded. ▪ Truck sides and rails will be swept to remove spilled material. ▪ Restricting vehicle speeds on all unsealed roads to a maximum of <80km/h and as low as 10km/h at sensitive receptor locations (e.g. camp areas). 	Oyu Tolgoi Environmental Department Principal Contractors	Audit and inspection	
Tr06-a	Traffic and transport	Dust (from vehicle tyres)	In addition to the measures in Tr05 above, to minimise the emission of dust from Project traffic, the use of water trucks during road and power line construction to suppress dust from earthmoving equipment and vehicles will be undertaken at any sensitive receptor locations.	Oyu Tolgoi Environmental Department Principal Contractors	Audit and inspection (of road maintenance and water use in dust suppression)	
Tr06-b	Traffic and transport	Dust (from vehicle tyres)	Contractors will be required to comply with Oyu Tolgoi recommended speed limits and slow down through any community areas.	Oyu Tolgoi Env Department Principal Contractors	Audit and inspection (of road maintenance and water use in dust suppression)	
Tr06-c	Traffic and transport	Dust (from vehicle tyres)	Oyu Tolgoi will maintain road surfaces on unsealed roads within the Mine Licence Area.	Oyu Tolgoi Env Department Principal Contractors	Audit and inspection (of road maintenance and water use in dust suppression)	
Tr07-a	Vehicle standards	Vehicle maintenance	All Project vehicles will undergo regular maintenance and where reasonable, idling of engines will be avoided. Oyu Tolgoi will maintain Project vehicles according to manufacturer instructions through regular scheduled maintenance in the mine mechanical shop by licensed mechanics. Contractors will also be required to	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
			maintain their vehicles according to factory specifications.			
Tr07-b	Vehicle standards	Vehicle maintenance	Audible reversing alarms and other safety devices shall be fitted where practicable and maintained in good working order on all Project vehicles.	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	
Tr07-c	Vehicle standards	Vehicle maintenance	Where practicable, vehicles will be fitted with emissions control technology and meet applicable emissions guidelines and they will undergo regular vehicle maintenance.	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	
Tr07-d	Vehicle standards	Vehicle maintenance	All Oyu Tolgoi trucks and those on dedicated contracts will be fitted wherever possible with satellite tracking devices and speed control, so that driver compliance with the speeds designated by Oyu Tolgoi can be enforced through monitoring of maximum vehicle speeds.	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	
Tr07-e	Vehicle standards	Vehicle maintenance	As far as practicable, Oyu Tolgoi will require all transportation contractors to use modern efficient vehicles with appropriate noise and emission control measures.	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	
Tr08-a	Vehicle standards	Exhaust emissions	Engine and exhaust systems will be operated in accordance with manufacturer's specifications to minimise exhaust gases. Project vehicles are to comply with applicable Mongolian emission standards or appropriate international standards for all vehicles used on the Project including: emissions from petrol engines (MNS 5031:2003) and emissions from diesel engines (MNS 5014:2003).	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	
Tr08-b	Vehicle standards	Exhaust emissions	Project vehicles are to comply with applicable Mongolian standards or appropriate international standards for fuel used for transport activities.	Oyu Tolgoi Environmental Department Principal Contractors	Vehicle specification and maintenance records	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
Tr09-a	Stakeholder engagement	Dust	Once the paved road to the border at Gashuun Sukhait has been constructed, all Project-related traffic travelling to/from China will normally use this road.	Operation Team	Record of consultations – agreed actions	
Tr09-b	Stakeholder engagement	Dust	During the construction phase, Oyu Tolgoi will undertake an on-going review of activities that contribute to significant dust generation and maintain an on-going dialogue with local herders and local communities along principal transportation routes. If complaints are received by local herders, Oyu Tolgoi is committed to work with specific herders to develop monitoring and appropriate mitigation measures.	Oyu Tolgoi CSP Department	Record of consultations – agreed actions	
Tr09-c	Stakeholder engagement	Dust	Mitigation measures will be implemented in consultation with herders where dust nuisance occurs.	Oyu Tolgoi CSP Department	Record of consultations – agreed actions	
Tr10-a	Stakeholder engagement	Division of Grazing Land and Migration Routes	Oyu Tolgoi will provide timely and accurate information to local communities on significant future planned construction activities.	Oyu Tolgoi CSP	Record of consultations – agreed actions	
Tr10-b	Stakeholder engagement	Division of Grazing Land and Migration Routes	Oyu Tolgoi will continue to consult with local communities to understand how they may be affected and develop appropriate mitigation strategies to reduce effects from construction (including road use).	Oyu Tolgoi CSP	Record of consultations – agreed actions	
Tr10-c	Stakeholder engagement	Division of Grazing Land and Migration Routes	Oyu Tolgoi will liaise and consult with local families using pastures within the road alignment to help minimise the risk of stock loss from vehicle accidents.	Oyu Tolgoi CSP	Record of consultations – agreed actions	
Tr10-d	Stakeholder engagement	Division of Grazing Land and Migration Routes	Oyu Tolgoi will position herder crossing points at appropriate locations and implement measures so they will be recognised by the herders. (see also <i>Chapter D6: Flora and Fauna Construction Management Plan</i>)	Oyu Tolgoi CSP	Record of consultations – agreed actions	
Tr11-a	Social impacts	Noise	All Project vehicles, including freight vehicles are to comply with applicable Mongolian standards for noise emissions.	Oyu Tolgoi Environmental Department Oyu Tolgoi CSP Department Oyu Tolgoi Legal	Record of consultations – agreed actions	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
				Department Oyu Tolgoi H&S		
Tr11-b	Social impacts	Noise	Transportation activities outside the Mine Licence Area will be managed to ensure that any night time driving is minimised wherever possible and where undertaken is done so in accordance with the HSE Policy.	Oyu Tolgoi Environmental Department Oyu Tolgoi CSP Department Oyu Tolgoi Legal Department Oyu Tolgoi H&S	Record of consultations – agreed actions	
Tr11-c	Social impacts	Noise	Speed limits will be enforced in relation to road conditions and location of sensitive receptors including on-route communities (for noise reduction but also for safety reasons). All Oyu Tolgoi vehicles and contractor vehicles will have a speed limit set for travel through settlements and areas where there are no posted speed limits. Guidance from relevant central government shall also be sought, as well as agencies and national organisations.	Oyu Tolgoi Environmental Department Oyu Tolgoi CSP Department Oyu Tolgoi Legal Department Oyu Tolgoi H&S	Record of consultations – agreed actions	
Tr11-d	Social impacts	Noise	As far as possible, companies with large trucks regularly supplying Oyu Tolgoi are to be equipped with truck muffler systems, and shall be maintained regularly. Where there is the potential to impact on people or animals, limit will be imposed on the use of engine braking systems.	Oyu Tolgoi Environmental Department Oyu Tolgoi CSP Department Oyu Tolgoi Legal Department Oyu Tolgoi H&S	Record of consultations – agreed actions	
Tr12-a	Road Safety	General	The Project will apply appropriate safety standards, with legal compliance being a minimum requirement, for all vehicles and transport operations. In addition periodic road clean-up for windblown rubbish will be undertaken.	Oyu Tolgoi Environmental Department	Evidence of building surveys, contractor procurement process and driver training/ qualification	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
					records.	
Tr12-b	Road Safety	General	The Project will conduct route surveys, including surveys to identify communities along the route and identify accident black spots.	Oyu Tolgoi Environmental Department	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr12-c	Road Safety	General	The Project will implement rigorous contractor selection processes, including consideration of driver standards, to minimise risk (see also <i>D18: Community, Health, Safety and Security Management Plan</i>)	Oyu Tolgoi Environmental Department	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr12-d	Road Safety	General	The Project will implement rigorous driver training and vehicle inspection programs for Oyu Tolgoi/Contractor drivers and facilitate the adoption of similar standards for contractors	Oyu Tolgoi Environmental Department	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr12-e	Road Safety	General	The Project will establish appropriate driving rules, including for day/night driving and driving in wet conditions.	Oyu Tolgoi Environmental Department	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr12-f	Road Safety	General	The Project will ensure that all Project vehicles are well-maintained and fitted with appropriate safety equipment	Oyu Tolgoi Environmental	Evidence of building surveys, contractor	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
				Department	procurement process and driver training/ qualification records.	
Tr12-g	Road Safety	General	The Project will work with local Police Departments and administrators to help them implement a traffic awareness program (see TR13)	CSP	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr12-h	Road Safety	General	Oyu Tolgoi will maintain roads and related safety signage on roads that are heavily used by Project. (within the Mine Licence Area and the airport access road, road from Oyu Tolgoi to Khanbogd and the road from Oyu Tolgoi to Gashuun Sukhait)	Oyu Tolgoi Environmental Department All Contractors Oyu Tolgoi Infrastructure	Evidence of building surveys, contractor procurement process and driver training/ qualification records.	
Tr13-a	Road safety	Traffic awareness programme and community safety	The Transport Management Plan includes a Traffic Awareness Programme for villages and towns affected by Project-related traffic. Oyu Tolgoi will work with Project contractors and relevant government Departments and administrators to implement the traffic awareness programme. The Traffic Awareness Programme links in with the Road Traffic Injury Prevention Plan which is part of the Community Health Safety and Security Programme.	Oyu Tolgoi CSP Department	Record of consultations Agreement with NGO	
Tr13-b	Road safety	Traffic awareness programme and community safety	Informing affected communities of the potential hazards that could be encountered from increased or altered traffic patterns and volumes on the roads used by Project-related vehicles;	Oyu Tolgoi CSP Department	Record of consultations Agreement with NGO	
Tr13-c	Road safety	Traffic awareness programme and community safety	Implementing a range of practical education activities, demonstrations and other events to help the residents avoid traffic accidents and incidents;	Oyu Tolgoi CSP Department	Record of consultations Agreement with	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
					NGO	
Tr13-d	Road safety	Traffic awareness programme and community safety	The traffic awareness programme will be tailored to meet the needs of the different communities/settlements affected along the transport route	Oyu Tolgoi CSP Department	Record of consultations Agreement with NGO	
Tr13-e	Road safety	Traffic awareness programme and community safety	Consideration will be given to targeting different sections of the population that may be affected by increased traffic, particularly children, youth and the elderly;	Oyu Tolgoi CSP Department	Record of consultations Agreement with NGO	
Tr13-f	Road safety	Traffic awareness programme and community safety	Proper notification will be provided to affected communities well in advance of training dates to ensure maximum participation.	Oyu Tolgoi CSP Department	Record of consultations Agreement with NGO	
Tr14	Road safety	Driver standards, competency and training requirements	<p>The Project will apply appropriate safety standards, with legal compliance being a minimum requirement, for all vehicles and transport operations. The Project will therefore implement:</p> <ul style="list-style-type: none"> ▪ Driver training will include clear procedures for driving when animals (herd or wild) are observed close to or on the road. ▪ Drivers' training will address community risks and enforcement of speed limits. <p>All drivers must abide with limitations for trip duration and enforced rest periods. Including:</p> <ul style="list-style-type: none"> ▪ A maximum daily driving limit of 9 hours (up to 10 hours 2 times per week). ▪ Maximum driving hours of 56 hours per week (and less than 90 hours for 2 weeks). ▪ A rest break every 4.5 hours. ▪ The Project will implement a strict zero alcohol policy for all drivers. ▪ Oyu Tolgoi will ensure that all drivers are trained in the emergency response procedures. 	Oyu Tolgoi Environmental Department Principal Contractors	Audit and inspection –of contractors	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
			<ul style="list-style-type: none"> ▪ All drivers of Project vehicles will hold appropriate driving licenses applicable to the type of vehicle they drive. 			
Tr15	Transport	Accident Response (Off-site)	<p>In the case of an off-site environmental incident with a truck outside the Project site and beyond the Project Access Road; where the incident involves an Oyu Tolgoi vehicle:</p> <ul style="list-style-type: none"> ▪ It will be reported directly through Emergency Dispatch which will coordinate the follow up response. Emergency Dispatch will coordinate with SOS to send an ambulance if necessary. ▪ Emergency Dispatch will also notify the Safety and Security departments which will send personnel to the site whether medical assistance is needed or not. ▪ Security will inform the local police to attend. ▪ Oyu Tolgoi Head of Safety will then prepare an Incident Report. ▪ Working with the appropriate emergency services (including internal Oyu Tolgoi services), the Emergency Response Team (ERT) will take control of the incident and rectify the situation. ▪ If it is considered that the exclusion zone set up around the incident needs to be communicated to the local communities, the Oyu Tolgoi Community Relations Officer will be involved and briefed. ▪ The ERT will neutralise any spills and clean the location. ▪ Any contaminated material created by the incident will be stored in Hazardous Waste Storage Bins. ▪ The contaminated material will be checked by the Environment Department. ▪ Once the material has been classified it will be disposed of in a designated area. ▪ The Communities and Social Performance Department will be briefed in order to address any community concerns that may be raised. ▪ Where the incident involves death of or injury to animals, 	<p>Emergency Response Teams Safety and Security Departments Oyu Tolgoi Environmental Department Communities and Social Performance Department (CSP)</p>	<p>Audit and inspection – incident reporting and investigation</p>	

ID	Topic/ Aspect	Applicability/ Activity	Control Description	Responsible Parties	Means of verification	Comments
			<p>the Communities and Social Performance Department will work with the local veterinarian to determine the cause of death. If Oyu Tolgoi is determined to be responsible, CSP will engage the owner through the Community Complaint Management Procedure and refer them to the Compensation document.</p> <p>Where the incident does not involve Oyu Tolgoi personnel or vehicles, it will not be reported through the Oyu Tolgoi system.</p> <p>For on-site accidents refer to Emergency Response Construction Management Plan.</p>			

11.8 TRAINING

All drivers of Project vehicles will hold appropriate driving licenses applicable to the type of vehicle they drive. They will also receive Project specific training to help reduce environment, social and safety risks from the Project. Training requirements for drivers highlighted in *Table 11.1* above relate to:

- Safe and considerate driving styles, especially in close proximity of communities;
- Awareness of speed restrictions, particularly where Project limits are additional to national limits;
- Awareness of other sensitivities, such as animal crossing points or where animals are observed on or close to the road; and
- Response procedures in the event of an emergency.

Additional, specialist training shall be provided to drivers responsible for the haulage of hazardous materials (See *Chapter D12: Hazardous Materials Construction Management Plan*).

11.9 MONITORING

The monitoring measures that are to be implemented during the Construction Phase to ensure compliance with the Project Standards (see Section 11.5) are described in *Table 11.2* below. Responsibility for the implementation of traffic monitoring within the remit of this Management Plan rests with the Oyu Tolgoi Environment Manager. In the event that any monitoring results identify non-conformances of any Project Standards, these will be investigated and corrective actions identified (see *Chapter D1: ESMP Framework* for further details).

The monitoring will focus on driver standards and competence, compliance with the requirements in *Table 11.1* including speed limits, vehicle standards and drivers' training and awareness. It will therefore primarily take the form of audit and inspection programme. The key monitoring/audit measures and performance indicators are presented in *Table 11.2* and *Table 11.3* below.

Table 11.2: Monitoring Measures – Transport

ID	Topic/Aspects	Methods	Periodicity	Location
TrMM1	Traffic volumes	Contractors must report to Oyu Tolgoi Environment manager: <ul style="list-style-type: none"> Quality of access roads Number and size of trucks to be used 	Monthly reporting to Oyu Tolgoi Environment Manager	Haulage routes
TrMM2	Animal sightings	Sightings of megafauna will be recorded (including time and date, location, species and estimated numbers)	Daily (upon sighting)	Haulage routes
TrMM3	Driver competency	Oyu Tolgoi shall establish an inspection and audit programme to include periodic audit of Oyu Tolgoi and Contractors' performance with respect to this Transport Management Plan for Construction, including: <ul style="list-style-type: none"> Review of Contractors' ability to meet the requirements of this plan prior to appointment Contractors' emergency response procedure (including actions to be undertaken by drivers) Audit of driver competency Vehicle equipment and maintenance records Drivers' training records 	Prior to a contractor's initial appointment and then on a quarterly basis. This frequency can be adjusted depending on contractor's performance over time.	Contractors' depots
TrMM4	Inspections and audits	Visual inspection, by the Oyu Tolgoi Environment Department of driving standards through sensitive locations i.e. the SPSA and villages along the main supply routes.	Every 3 months or in the event of a complaint	
TrMM5	Inspections	Visual inspection, by the Oyu Tolgoi Environment Department of dust levels along the haulage routes and in particular at sensitive locations e.g. residential areas.	Every 3 months or in the event of a complaint	
TrMM6	Impact on communities	Oyu Tolgoi will continue to engage with affected communities along haulage routes to establish the extent of impact caused by Project traffic.	On-going	Residential areas along or in close proximity to the Project haulage routes.

Consultation with stakeholder communities will be held regularly to determine the success and effectiveness of this Transport Management Plan and to address any community concerns. This will help to ensure that the amenity of the community is recognised and taken into account by the company. The frequency of these meetings will be agreed with the stakeholder communities; but are expected to be monthly at the start of the Project and become less frequent as the Project becomes established. (See *Chapter D14: Stakeholder Engagement Plan* and the *Chapter D18: Community Health, Safety and Security Plan* for further details).

11.10 KEY PERFORMANCE INDICATORS

Oyu Tolgoi will continue to evaluate the impacts of Project related vehicle movements. Specific monitoring provisions are detailed in Section 9 above. Key Performance Indicators (KPIs) for the management of Transport are presented in *Table 11.3*.

Table 11.3: Key Performance Indicators

ID	KPI	Target	Monitoring measure
TrM-KPI 01	No reported non-compliances against the mitigation controls identified in this EMP (<i>Table 11.1</i>).	Minimise and achieve continuous improvement in number of reported non-compliances	See 'means of verification' column in <i>Table 11.1</i>
TrM-KPI 02	Number of drivers found to be exceeding speed limits/driving unsafely	Minimise with a target of zero	Review of remote speed tracking devices
TrM-KPI 03	Number of road traffic accidents involving: <ul style="list-style-type: none"> ▪ Human harm ▪ Spillages (cargo/fuel) ▪ Road kill 	Minimise with a target of zero	Analysis of incident reporting records.
TrM-KPI 04	Number of transport related complaints	Minimise with a target of zero Resolve any in a timely manner	Grievance database (via liaison with CSP)