OGP

Land transportation safety recommended practice

Report No. 365, revision 1.1
April 2005, updated July 2011

International Association of Oil & Gas Producers

OGP Publications

Global experience

The International Association of Oil & Gas Producers has access to a wealth of technical knowledge and experience with its members operating around the world in many different terrains. We collate and distil this valuable knowledge for the industry to use as guidelines for good practice by individual members.

Consistent high quality database and guidelines

Our overall aim is to ensure a consistent approach to training, management and best practice throughout the world.

The oil & gas exploration and production industry recognises the need to develop consistent databases and records in certain fields. The OGP's members are encouraged to use the guidelines as a starting point for their operations or to supplement their own policies and regulations which may apply locally.

Internationally recognised source of industry information

Many of our guidelines have been recognised and used by international authorities and safety and environmental bodies. Requests come from governments and non-government organisations around the world as well as from non-member companies.

Land transportation safety recommended practice

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Acknowledgements

This recommended practice was produced for Members of the International Association of Oil & Gas Producers by the Land Transportation Safety Task Force

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1 Introduction

Background

Driving related incidents are the single largest cause of fatalities in OGP member company operations. It is an E&P industry's expectation that all companies operating land transport, or providing services involving land transportation, have in place a management system which includes land transport operations and is based on a full assessment of the risks and measures to address such risks.

An effectively implemented management system with due focus on land transport will yield many benefits, including improved driving safety performance with a consequential reduction in the number and severity of incidents leading to a reduction in injuries and fatalities.

Purpose

The main objective of this document is to help reduce, and ultimately eliminate, the number of serious road traffic incidents and fatalities by providing guidance on how to implement land transport safety elements in a management system which is consistent with the OGP *Guidelines for the development and application of health, safety and environmental management systems* (OGP report 210).

These guidelines have been developed to be sufficiently generic to be adaptable to different companies and their cultures worldwide, and to gain acceptance of their workforces. They are applicable to all parts of the E&P industry including operators, contractors and subcontractors, and provide information on elements which can be utilised by the communities in which the OGP member companies operate.

The recommended practices in chapter 2 are based on current experience and practices that have proven effective in reducing the number of serious incidents. This is supported by more detailed guidance and processes in the appendices.

Scope

It is strongly recommended that the guidance provided be applied to all land transport activities in the E&P industry. This includes:

- all company and contractor† vehicles and drivers operating on company roads and premises;
- all company and contractor vehicles and drivers operating on public roads and in public areas on company business; and
- all transport activities including personnel and freight movements, and mobile plant (drilling trucks, seismic vibrator trucks, *etc*) activities.

† *Contractor includes all sub-contracted activities*

2 OGP land transportation safety recommended practices

This chapter may recommend practices supplemental to the requirements of local legislation. However, nothing herein is intended to replace, amend, supersede or otherwise depart from such requirements. In the event of any conflict or contradiction between the provisions of this document and local legislation, applicable laws shall prevail.

OGP member companies are committed to the goals of significantly reducing road traffic injuries and fatalities, and achieving world-class road safety performance. They believe that this can be advanced by the implementation of the recommended practices which follow.

These practices are also applicable when member companies utilise processes for pre-qualification of land transportation service providers and other contractors. Demonstration of performance delivery against these practices is of critical importance in the contractor and subcontractor pre-qualification assessment.

Application

Exceptions to applying these recommended practices to land transport activities in the E&P industry may be appropriate for activities that are assessed to be of low HSE risk and where the effort and cost to implementing controls would generally be disproportionate for any risk reduction. Any such exceptions should be based on a documented risk assessment undertaken by personnel with appropriate knowledge and experience, and approved by senior line management. Any variations to this document may be found on the Land Transport Safety website (http://info.ogp.org.uk/LandTransport/).

Implementation

Member companies will annually report the degree of implementation of these recommended practices for their own company and contractor activities, as part of the annual OGP safety statistics reporting efforts.

2.1 Seatbelts

Occupants of any vehicle shall use seatbelts at all times.

All vehicles (owned, contracted or leased) must be fitted with seat belts for each occupant.

Belts for all occupants shall be of the 3-point configuration, preferably incorporating automatic retraction and deceleration activated emergency locking mechanisms, often referred to as "inertia reels". It is recommended that belts incorporate pre-tensioners wherever possible.

In vehicles equipped with sleeper berths, if the berth is to be used while the vehicle is in motion, some form of approved restraint shall be provided and used at all times the vehicle is in motion.

Where it is impossible to implement the above seatbelt requirements for buses or coaches, the minimum requirements are that seat belts are fitted for the driver (3 point); and front seats and seats with an open space in front (such as a seat adjacent to a doorway) should not be occupied unless seatbelts are fitted.

Personal vehicles used on company business should be consistent with the above specifications.

Vehicles which are not capable of more than 10 mph (16 kph) may be exempted.

Use of spot-hire vehicles not properly fitted with seat belts for all passengers shall be avoided when alternatives are available.

2.2 Driver training and qualification

Drivers must be appropriately licensed, trained, and have the functional capacity to operate the vehicle.

All drivers must have in their possession a valid driving/operator's licence (issued by a relevant public authority) for the class of vehicle being operated.

All employees who regularly drive on company business shall complete safe driving instruction in line with the content listed below. Additional training for high-risk environments and for specialised vehicles should also be taken.

A pre-hire screening process should be in place to select prospective drivers with driving records that reflect safe driving behaviours.

Good safe driving instruction should include the following:

- review of company policies and standards related to driving;
- defensive driving techniques;
- journey management techniques;
- alertness and fatigue management;
- effects of medication and substance abuse;
- vehicle restraint systems and safety equipment;
- pre-trip checks and proper seating position;
- local driving hazards (including personal security), regulations and culture;
- commentary driving; and
- assessment of driving skill and behaviour.

The need for refresher training and assessment shall be based on drivers' performance and risk exposure, with a refresher at least every three years following the initial training.

2.3 In-vehicle monitoring systems

Company-owned, contracted or leased vehicles, with the exception of contracted or leased vehicles where the vehicle is on contract for less than 3 months, shall be fitted with an In Vehicle Monitoring System (IVMS) or Vehicle Data Recorder (VDR) that produces journey data to be analysed and fed back to the drivers.

A risk-based methodology may be followed to set the pace of introducing IVMS. Exemption from using IVMS may be justified for some specific (groups of) vehicles where the effort required is shown to be disproportionate to the risk reduction achievable. Both pace of implementation and possible exemption, shall be evaluated based on the current situation, and be documented.

Minimum journey data recorded by such systems shall record against a driver identification number or key, the speed, harsh acceleration, harsh deceleration, kilometres or miles driven and driver hours.

A data management system (DMS) shall be implemented to ensure data from IVMS or VDR is properly analysed and fed back to drivers and supervisors. This data management system shall include the following:

- procedures to ensure monitors are installed and working properly, with alarms set to levels commensurate with local driving conditions;
- recent data from the monitors is downloaded, analysed, and communicated; and
- data from the monitors is used to provide individual driver performance feedback for improvement and skills development.

2.4 Cellular telephones and two-way communications devices

Drivers shall neither initiate nor answer a mobile telephone call while driving a vehicle (this includes text messaging and the use of hands-free devices).

Mobile telephones can be left on during a trip to alert the driver of any incoming calls. The driver should safely leave the road and bring the vehicle to a complete and safe stop, in a safe parking area, before initiating or answering a call. This also applies to radios used for two-way communication including communication with base stations and any other network enabled devices.

The exception to this is for the use of two-way radios or "Citizen Band" (CB) radios as part of convoy management or for use during emergency situations. Radio use in these circumstances should be kept to the minimum necessary to communicate and control the hazards and risks of the journey being undertaken.

2.5 Journey management plans

Managers at every level shall question the need for journeys, always searching to eliminate the journey or find an alternative means of achieving the journey objective. Where the journey is necessary, all risks will be assessed and a journey management plan effected if the risk assessment warrants.

Rail, ferry, or air travel shall be considered whenever a risk assessment shows that the risk is lower than driving. Where driving is unavoidable, alternatives such as combining trips and using approved transportation contractors, especially for "hotshot" trips (unplanned/non-routine transportation of equipment or personnel) shall always be explored.

Appropriate equipment and qualified personnel shall be assigned for the journey. The selection of equipment is not only a function of technical specifications for the requested service, but shall also take into account any special considerations for the journey (terrain, weather, high risk crossings, road conditions, *etc*).

Consideration should be given for establishing minimal expectations for local/in-field travel in low-risk conditions. Implmentation of full journey management procedures would be expected when condtions elevate the risk.

The Journey Management plan should ensure that, as identified as being appropriate by risk assessment:

- a journey manager is appointed;
- formal pre-trip briefings are held and documented. This shall include a discussion between driver and journey manager of routes, stops, hazards, loads, the requirement for the driver to report completion of the journey, and contingency plans for en-route emergencies, *etc*;
- appropriate means of communication between driver and journey manager are available and a communications protocol agreed;
- the route is clearly defined and mapped;
- potential driving hazards, especially dangerous intersections, are identified in advance, taking into consideration the terrain, time of day, weather, known dangerous routes, speed limits, holidays (especially those which involve fasting or alcohol), *etc*;
- appropriate vehicles are assigned to the journey taking into account the hazards identified;
- only qualified drivers are assigned with current certification for the type of vehicles to be used;

- drivers are physically and mentally fit, giving particular attention to past hours worked, past amounts of sleep, time of the day, position in the natural alertness cycle, food intake, *etc*;
- vehicles are inspected using an appropriate checklist before the journey begins;
- rest stops are scheduled;
- the driver clearly understands his/her responsibility to report completion of the trip to the journey manager;
- an estimate of the expected arrival time at the destination is made. Persons at the destination must take necessary action to initiate a contingency plan in the event that the traveller does not arrive at the set time; and
- all trips during the hours of darkness or during times of reduced visibility shall be systematically reviewed for risk and be subject to formal management approval before they begin. Risk assessment shall consider the risk of blowing snow, dust, smoke, fog, heavy rains, security risks, and local driving practices.

In environments where visibility of the vehicle can be problematic for other people (road users and pedestrians), and where permitted by local law, vehicles will drive with their lights illuminated at all times, unless specific risks (security, other identified risks) determine that such practice presents unacceptable risk. This includes low beam (dipped) headlights, side marker lights and tail-lights to ensure vehicles are visible from all directions.

When parking, every effort should be made to park the vehicle in a manner that allows the first move when leaving the parking space to be forward.

In journey planning, the driving, duty and rest hours specified in section 2.7 shall be applied.

2.6 Driving under the influence of alcohol, drugs, narcotics or medications

Drivers shall not operate a vehicle while under the influence of alcohol, drugs, narcotics or medication that could impair the operator's ability to safely operate the vehicle (consistent with local regulations and in line with OGP's guidance on *Substance abuse: guidelines for management* (OGP report 306).

2.7 Driver fitness and alertness

All persons employed as drivers and persons regularly driving on company business must be medically assessed with a minimum follow-up every five years (unless age or medical condition dictates otherwise) to ensure that they have the functional capacity to operate a vehicle safely.

Drivers must not operate vehicles unless appropriately rested and alert. In particular:

- drivers shall be screened for sleep disorders such as sleep apnoea;
- a process shall be in place to check prior to each journey whether the driver is fit to drive (as part of the journey management plan briefing);
- drivers must advise management when they have a disability or condition that could prevent them from driving safely;
- drivers shall have the right to refuse to drive when they feel that they are not fully rested or alert;
- drivers shall have the right to pull over at a safe location when they feel sleepy; a 15 minute nap should be allowed; and
- drivers shall be informed on how to identify driver fatigue and alertness problems, and means of dealing with them.

The following rules relating to driving and duty hours apply:

Requirement	Recommended practice
Maximum driving time between breaks and minimum break time	4.5 hours followed by a 30-minute break. However it is strongly recommended to have 15 minute breaks every two (2) hours, or more frequent breaks during periods of circadian lows
Maximum duty hours within a rolling 24-hour period	16 hours (i.e., employee cannot drive after 16 duty hours) This shall include driving, loading, unloading, waiting, rest breaks, and any other work (including air travel)
Maximum driving hours within a rolling 24-hour period	Ten (10) hours total excluding commuting time. Eleven (11) hours including any commuting time
Maximum duty hours in a rolling 7 day and 14 day period	14 day period: 120 hours, subject to an 80 hour/7 day maximum, and an average of 60 hours per week over an extended period
Off duty period in a rolling 7-day period	Minimum of a continuous 24 hour break prior to driving again

2.8 Vehicle specifications

Vehicles shall be fit for purpose based on an assessment of usage, and be maintained in safe working order in line with manufacturers' specifications and local legal requirements.

The following equipment should be installed and securely fixed, where appropriate, on light duty vehicles:

- head rests (all seats);
- air bags (all possible, but at least driver's seat);
- anti-lock brakes;
- side impact protection;
- seatbelts as specified in section 2.1;
- fire extinguisher;
- first-aid kit & flashlight/torch;
- approved driving monitor (IVMS/VDR);
- driver and passenger side mirrors;
- climate control, *ie* heater and/or air condtioner, as appropriate to ambient climatic conditions;
- heated outside mirrors for cold weather climates;
- suitable spare wheel and tyre; and
- disabled vehicle marker (*eg* warning triangle).

Additionally, the following equipment should be installed on heavy-duty vehicles:

- under-run protection;
- single-piece rims as available;
- conspicuous rear and side markings;
- reversing alarm system (including other vehicles with limited rear-visibility); and
- wheel chocks (on passenger side).

Where a risk assessment demonstrates that the risk of rollover due to terrain, vehicle type or work conditions is higher than normal, a properly engineered rollover protection device must be installed (internally or externally).

Loose items which might cause injury in the event of an incident, shall not be carried in the passenger compartment of any vehicle. Any vehicle with non-segregated storage shall be equipped with a cargo net or equivalent to separate the storage area from the passenger area. Any heavy article carried inside the cab of a pick-up truck or cargo vehicle, such as jacks, fire extinguishers, etc., shall be firmly secured in such a way that they will not become a hazard in a crash (*eg* clamped behind the seat).

All loads transported in a pick-up (or utility) truck or other cargo vehicle shall be securely fastened, and shall not exceed the manufacturer's specifications and legal limits for the vehicle.

2.9 Management systems

Company and contractor management systems shall include requirements for managing land transport safety and the effective implementation of *Land transportation safety recommended practice*. These should include:

- Leadership and commitment: management setting clear expectations that the recommended practices are met, making resources available to meet them, and setting a good example themselves.
- Policy and strategic objectives: management communicating a clear policy statement expressing the commitment to continuously improve road safety through implementation of the above recommended practices, and setting strategic objectives for the aspired improvements
- Organisation, resources and documentation: an overall management structure for land transport operations shall be documented and communicated. It should clearly identify the people with responsibility for managing land transport safety, and their competencies. Adequate competent resources shall be made available in a timely manner to fulfil the LT strategic objectives
- Evaluation and risk management: all hazards related to land transport shall be identified, documented and risk assessed. Risk reduction measures, including those based on the *Land transportation safety recommended practice* shall be put in place.
- Planning: land transport operations shall be planned in line with the policy, strategic objectives and the *Land transportation safety recommended practice*. The risks introduced by changes in planned activities and deviations from policies, procedures and recommended practices shall be assessed periodically, eliminated or mitigated, and approved by management. Procedures should be maintained to identify foreseeable emergencies, and response plans developed for such situations.
- Implementation and monitoring: monitoring systems shall be in place to ensure that the management system is effective, that the *Land transportation safety recommended practice* are followed, and that a system is in place for managing exceptions. Corrective action shall be initiated in the event of non-compliance. Records shall be kept to demonstrate the extent of compliance.
- Audit and review: an audit programme shall be implemented to verify effective implementation of the management system elements related to land transport, and the *Land transportation safety recommended practice*. Senior management shall carry out an annual review of audit findings and their close out and assess the need for changes to the requirements for managing land transport safety.

Guidance on the land transport safety elements to be included in an HSE management system is provided in Appendix 1.

3 Reference List

1 Seat Belts specification/implementation

- "Seat belt campaign toolkit manual" (May 2004), The Federation Internationale De L'Automobile (FIA) Foundation.

2 Driver Training and Qualifications

- "Specialised Driver Training: Elevating Defensive Driving From a Simple Awareness to a Proactive, Crash Free Reality", D. Meade and D.Tate, SPE 86832, 7th SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production, Calgary, Alberta, March 2004.
- "Building a Global Driving Programme that Delivers Superior Results" D.Tate, SPE 86750 7th SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production, Calgary, Alberta, March 2004.

3 Effectiveness of IVMS

- "Making In Vehicle Monitoring Systems Work", D. Nijen-Twilhaar, I.van Schagen and B. Kassar, SPE 61089, 5th SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production, Stavanger, Norway, June 2000.
- "Driver Monitors: Improving Transportation Safety and Enhancing Performance Through Behavioural Change", T. Ballard, A.Melton and I Sealy, SPE 86834, 7th SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production, Calgary, Alberta, March 2004.

4 Use of mobile telephones

- "The Mobile Phone Report", March 2002, Transport Research Laboratory (TRL) and Direct Line Motor Insurance.
- "The Mobile Phone Simulator Study" (2004), Swedish National Road and Transport Research Institute (VTI).
- "The Risk of Using a Mobile Phone While Driving" (2002), The Royal Society for the Prevention of Accidents (RoSPA).

5 Driver/duty hours and Fatigue

- "Drivers Guide to Fatigue" (2003), Awake Limited.
- "Arrive Alive", Loughborough Research Centre.

6 Load securing

- North American Cargo Securement Standard.
- Supplementary amendments that came into effect on 1/12004 in the Code of Federal Regulations 49 CFR 393 102.
- UK Department of Transport Code of Practice on Safety of Loads on vehicles.

7 Hazard assessment

- "Reducing Vehicular Incidents with a Road Hazard analysis", D. Tate, N. Campbell, Seventh SPE International Conference on Health Safety and Environment in Oil and Gas Exploration and Production held in Calgary, Alberta, Canada, 29-31 March 2004
- National Road Transport Commission of Australia Load Restraint Guide.

8 Other relevant documents

Examples of good pratices and documents providing further clarification can be found on the OGP website http://info.ogp.org.uk/LandTransport. These include:

365-1 – Road hazard assessment
365-2 – Journey management
365-3 – Driver fitness for duty test
365-4 – Road/vehicle accicent checklist
365-5 – Common land transport incident KPIs for Motor Vehilce Crashes (MVC)
365-6 – Questionnaire/checklist assessment for the implementation of report 365-7 Variations to RP 365 for off-road operations
365-8 – Driver Trainer Recommended Approach and Profile
365-9 – Driver qualification process
365-10 – Journey management process
365-11 – Commentary drive assessment
365-12 – Land Transport Safety Task Force IVMS Settings
365-13 – FAQs

These documents are regularly reviewed and updated and are therefore not included in this document.

Appendix 1 — Land transport safety elements of a management system

Many guidance documents can serve to assist in the development of HSE Management Systems. The main objective is to ensure that activities are planned, carried out, controlled and directed so that risks from all activities, including land transportation, are minimised. For the guidance in this appendix, the structure of the OGP *Guidelines for the development and application of health, safety and environmental management systems* (OGP report 210) is used.

The following sections of this appendix will assist the responsible managers in developing the elements of a management system that have the most significant impact on land transport safety.

1 Leadership and commitment

Visible demonstration of leadership and commitment

Senior management should demonstrate their commitment to managing land transport operations in a safe, healthy and environmentally responsible manner. Leadership and commitment is demonstrated visibly when management at all levels:

- set a good example in terms of their own attitude and driving performance;
- allocates the necessary resources to land transportation and related logistic issues;
- puts land transport safety matters high on the agenda of meetings, including board meetings;
- communicates clearly that land transport safety standards are an important company requirement;
- provides appropriate training and assessment for all drivers involved in land transport operations;
- encourages safety promotions and employee and contractors' suggestions for measures to improve safety performance, and commends safe practice;
- sets plans and targets, and measure vehicle safety performance of all employees; and
- insists that transport contractor operations meet all requirements.

There should be a clear definition of delegated responsibility for land transport to nominated individual managers down through the management structure.

2 Policy and strategic objectives

Policy Statement

The senior management should make clear in a policy statement their commitment and expectations of good HSE management. All vehicle owners and operators should formulate local land transportation HSE policies identical to, or compatible with the corporate HSE policy to improve the safety of land transport operations.

To operate in a safe, efficient and effective manner so as to reduce incidents, eliminate fatalities and operate in an environmentally sensitive and responsible way, the policy statement should include some or all of the following features. It should:

- be publicly available in appropriate local languages and in a bold, easy to read format;
- demonstrate the organisation's commitment to strive continuously for improvement in land transport safety performance by minimising risk;
- give a clear, concise and motivating message that land transport safety is as important as other business objectives and that transport incidents are avoidable;
- promote openness and the participation of all individuals in improving safety performance;

- highlight the importance and relevance of an effective organisation to manage transport operations and indicate that line managers are responsible for land transport safety at all organisational levels;
- make a commitment to meet all legislative requirements and apply responsible standards and procedures where national regulations do not exist;
- challenge the requirement for land transport and consider alternatives, with the aim of minimising exposure to the driving environment; and
- undertake all transport operations with proper regard for the environment and to strive to reduce the consumption of fuel, emissions and discharges.

The Land Transport Safety Policy Statement should be:

- provided to each employee by their line manager and the implications of the policy fully explained in practical terms;
- displayed on notice boards, transport staff offices, drivers' meeting rooms and other prominent locations;
- given to contractors as part of any tender documentation;
- included in driver's handbook;
- discussed and explained on training courses; and
- regularly reviewed by management on its intent, scope and adequacy.

Strategic objectives

The Land Transport Safety Policy Statement provides the starting point for establishing strategic land transport objectives.

Such objectives should aim to:

- reduce the number of incidents and fatalities;
- minimise the number of journeys and personnel exposure;
- minimise the total number of kilometres driven;
- establish driver selection, testing and training programmes;
- establish and support safe land transport working procedures and practices and to strive for an incident-free activity;
- ensure that the company will employ only transport assets, facilities and equipment which conform to acceptable standards and that they are maintained in a safe, secure and operational condition; and
- specify the need to develop an emergency response capability in cooperation with authorities and emergency services.

3 Organisation, resources and documentation

Organisation

An overall management structure for land transportation and its relation to the implementation of the transport policy within the organisation should be in place and made widely available. It should clearly identify those people who have an active responsibility for land transport management, and should state what those responsibilities are. All employees who make use of, or are affected by land transportation should continually be made aware of their individual responsibilities.

The structure should describe the relationship between:

- different operations;
- operating units and supporting services;
- operators, contractors and sub-contractors; and
- partners in joint ventures.

Land transport safety is a line management responsibility with safety advisers/trainers, *etc* assisting line management in the development, implementation and maintenance of the programme. The following are general but fundamental points concerning land transport organisation:

- management representatives should be assigned responsibility, authority and accountability for coordinating implementation and maintenance of the land transport elements of the management system;
- all employees involved in land transport should be made aware of their individual role, accountabilities and responsibilities;
- management should ensure that personnel performing specific assigned HSE critical activities and tasks are competent;
- management should ensure and increase competence through the identification of training needs and the provision of appropriate training for its personnel, both drivers and supervisors;
- management should ensure that it's contractors operate a land transport management system. Contractors should be visited and supported at regular intervals during the contract period to assist them with the integration of land transport elements into their management system. Joint reviews at regular intervals should occur to ensure that land transport management objectives are achieved; and
- management should maintain procedures to ensure that its employees and those of its contractors, partners and others involved with land transport at all levels are aware of the requirements for managing land transport. The focus of communication should be on bridging local language and cultural understanding.

Resources

Management should ensure that adequate resources are made available in a timely manner to fulfil the strategic objectives set out in the company's land transport management plan.

Documentation

Documentation should be maintained to provide records of the critical aspects of land transportation management. Policies and responsibilities need to be established for the availability, maintenance and modification of such documents.

4 Evaluation and risk management of land transport

A thorough and comprehensive hazard identification and risk assessment of land transport operations should be performed at the earliest opportunity, and at suitable intervals thereafter, by experienced and suitably qualified personnel. This exercise should cover an assessment of all hazards that could occur within the land transport of personnel, goods or materials in every aspect of the planned operation.

Procedures should be systematically implemented to identify potential hazards and their consequences throughout the total life cycle where land transport is involved, that is:

- planning and sourcing of vehicles;
- routine and non-routine operations;
- incidents and potential emergency situations;
- disposal of vehicles; and
- evaluation of local transport regulations.

Recording of hazards

The hazards information gained from the risk evaluation should be documented and incorporated into the management system, which should demonstrate that:

- all foreseeable hazards associated with land transport have been identified;
- the likelihood and consequences of an incident have been assessed;
- controls to mitigate significant risks are in place; and
- emergency response measures to mitigate incidents are in place.

Risk reduction measures

Procedures should be in place to select, evaluate and implement measures to reduce risks. Emphasis should be placed on preventative measures such as enhancing driver performance, security of vehicles and cargo, and proactive environmental protection wherever practicable. Mitigation measures should include steps to prevent escalation of any incidents that do occur through effective emergency response.

Effective risk reduction measures and follow-up require visible commitment of management and on-site transport supervisors, as well as the understanding and ownership of the measures by drivers.

5 Planning

All aspects of land transportation operations, vehicle selection and use should be planned in line with the policy and strategic objectives of the company.

The plans should especially address the introduction of any new or unusual techniques, types of transport and types of environment as well as training requirements.

A journey management system should be operated to ensure each journey is necessary, properly organised and supported.

Management of change

Any changes in the personnel, vehicles, processes and procedures of land transport in the company have the potential for adverse effects on health, safety and the environment. All changes should be considered in this light. Changes which may be critical to the management of safety of land transport should be reviewed prior to implementation.

Contingency and emergency planning

As part of emergency response arrangements, procedures shall be in place to identify, reduce the risk and consequence of, respond to, and manage all foreseeable land transport emergencies. Roles and responsibilities of employees dealing with emergencies shall be documented. Procedures shall be established to test the effectiveness of emergency response plans by scenario drills and other suitable means. Plans shall be revised at appropriate intervals as necessary in the light of the experience gained. Procedures shall also be in place for the periodic assessment of the "readiness for use" of emergency equipment. Where there is an interface with the public, emergency services procedures need to take cognisance of this and scenario drills need to test effectiveness of the interfaces.

6 Implementation and monitoring

There should be written procedures for all safety critical land transport activities. A monitoring system must be in place to ensure that the management system is effective, and that procedures are followed.

The land transport activity should be conducted in accordance with the plans and procedures which have been developed at the transport planning stage and be consistent with the company's Land Transport Safety Policy and related strategic objectives.

Procedures should be in place for both active and reactive monitoring.

Active monitoring

Active monitoring provides information on the extent to which land transport safety requirements are being complied with, and objectives and performance criteria are being met.

Reactive monitoring

Reactive monitoring provides information from the investigation of vehicle incidents (including near misses, ill-health of drivers, vehicle/asset/environmental damage and safety statistics) that have occurred and provides insight into the means to prevent similar incidents in the future.

Records

Records should be kept in order to demonstrate the extent of compliance with its land transport policy and to document the extent to which planned objectives and performance criteria have been met, including:

- reports of inspections, audits, reviews and follow-up actions;
- investigation of incidents and follow-up actions;
- maintenance reports;
- training records; and
- security incidents.

Corrective action

There should be a clear assignment of responsibility for initiating corrective action in the event of non-compliance with specific land transport requirements of the management system. Situations of non-compliance may be identified by the monitoring programme, via communications from employees, contractors, customers, regulatory authorities, the general public or from incident investigations.

7 Audit and review

A system of planned and systematic audits of land transport operations together with management reviews of performance should be established and maintained as a integral part of the land transport operations.

The audit plan should identify specific areas to be audited, the frequency of those audits and the responsibilities for auditing specific activities/areas. Audit frequency should be determined by the degree of risk and the results of previous audits and inspections.

Audit protocols should be established which ensure that adequate resources, personnel requirements and methodologies are in place for the audit, together with procedures for reporting audit findings and tracking the implementation status of audit recommendations.

8 Management review

Senior management should carry out a review of the land transport safety aspects of the management system at appropriate intervals to ensure its continuing suitability and effectiveness for the ongoing operations.

The review should include audit findings and the status of audit recommendations as well as reports from incident investigations. It should also consider the continuing suitability of land transport policy, any changes in recognising hazards and assessing risks, and any changes to the system or procedures since the last review.

The management review should be recorded.

Appendix 2 — Glossary

Bus or coach

Any motor vehicle with 9 or more passenger seats.

Company

An OGP member company and it's contractors or sub-contractors.

Driver

A driver who undertakes any work related journey conducted on behalf of a company.

Commentary drive

Is a situation where a driver sits in the driver seat with a qualified assessor in the passenger seat. The driver then conducts a typical journey and explains what hazards he/she sees in the road ahead in addition to unseen hazards, and what proactive driving techniques they are going to undertake to minimise the threat from such hazards. The driver then talks through the proactive driving techniques that are taken and discusses whether he/she thinks they will work or not. At the end of drive the supervisor/assessor feeds back to the driver an assessment of the defensive driving skills employed during the drive and coaches the driver on any areas of improvement in these skills.

Gross Vehicle Weight (GVW)

The maximum laden weight including loads and passengers of the vehicle as recommended by the manufacturer.

Hands free device

A vehicle installation whereby a mobile phone is docked into fixed equipment permanently wired to the vehicle, and where there is no cable/wireless connection between the equipment and the driver.

Heavy duty vehicle

Any motor vehicle with a kerb weight of more than 4000kg or gross vehicle weight greater than 7500kg, which is specifically designed to pull a trailer or to carry cargo;

IVMS

An IVMS is a small piece of hardware that fits on or behind the dashboard of a vehicle. The hardware monitors certain data such as speed, acceleration, deceleration, kilometers driven and driver hours as a minimum, although many other parameters can be monitored. These data are collated against a particular driver for each journey they undertake due to the fact that the driver activates the IVMS device by either entering a driver ID into the monitor or using a driver ID key to plug into the monitor. At the end of a journey or a series of journeys these data can be downloaded to a computer by various means. The downloaded data output from the monitor provides a profile of an individual driver's actual driving performance on work related journeys. This data profile can then be used by a supervisor to coach the driver to reduce speed, reduce harsh braking, acceleration etc. This coaching and improvement step is the Data Management System (DMS) element. It should be noted that IVMS with DMS is not a policing tool but is a means of developing shared understanding and common values (driving culture) regarding safe operation of a vehicle. IVMS is sometimes also called a VDR (Vehicle Data Recorder).

Journey management

It is a system whereby a journey plan is agreed between driver and a supervisor or a journey manager. The journey plan will cover the time between departure and arrival at the final destination. The plan shall detail the safest route to take avoiding or mitigating any potential hazards en route and the rest breaks the driver needs to take to prevent driver tiredness and fatigue. A time line will be developed for the whole journey, so that the driver does not break the speed limit at any time and takes their rest breaks. The plan will also provide the telephone number the driver needs to call at the end of the journey to confirm the journey is complete. If the driver does not call within an allocated time then local Company emergency response procedures should be activated. (There are numerous other things that can be added to a journey management plan, so this is not a complete description).

Journey manager

This is a person who is not engaged in the journey. The journey manager oversees implementation of the defined journey management process, monitors progress and responds to deviations and/or emergencies.

Kerb weight

The unladen weight of the vehicle recorded at registration.

Light duty vehicle

Any motor vehicle having a kerb weight less than 4000kg or gross vehicle weight less than 7500kg and having 8 passenger seats or less.

Owned, contracted or leased

In relation to vehicles of any type:

- owned means owned by the company;
- contracted means owned by a contractor and temporarily assigned to company activities under a contract;
- leased means vehicle leased by the company (not including personal lease option cars offered as part of an employee's benefit package)

Rollover Protection Device (RPD)

Is a mechanical structure that fits within the vehicle body and prevents the structural collapse of the roof of a vehicle and pillars supporting the roof in the event that a vehicle rolls over onto its roof. The RPD should be designed not to cause injury to vehicle occupants in the event of a rollover, or pedestrians outside the vehicle in event of a collision.

Safe driving

A set of driving skills that are the proactive application by a driver of safe behaviours during any journey with the sole objective of preventing any road traffic incident. The key skills are to visually scan the road ahead for hazards in order to undertake proactive driving techniques to minimise the threat of those hazards and to be prepared for any unseen hazards.

For further information and publications,
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