safe work healthy life

HEIDELBERGCEMENT

Group Standard

Driving Safety

Scope:	**Group**
Author:	**Group Human Resources, H&S**
Issued	**10/2010**
Re-issued:	**11/2019**
Version	**4.0**

Table of Contents

Changes in comparison to the previous version are highlighted in yellow

1 Purpose

This Group Standard provides the responsible HeidelbergCement line managers and functions, such as HTC, CCM, CCR, Purchasing and Logistics/ Supply Chain, with general guidance and sets up minimum requirements to improve Driving Safety for our own and contracted logistic activities, on-site as well as off-site.

Local measures have to be implemented to comply with this Standard. Any measures taken have to comply with all applicable laws and regulations as well as with HeidelbergCement site Standards and guidelines. Whenever a discrepancy occurs between local laws/ regulations and these minimum requirements, operations shall comply at least with mandatory laws and besides this with the more stringent of the two.

2 Objective

HeidelbergCement is committed to eliminating driving related injuries and fatalities. This can be achieved by implementing the measures outlined in this document, which have proven effective in reducing traffic and mobile equipment related incidents within and outside our industry.

3 Scope

This Standard is applicable at all locations and operations where the HeidelbergCement Group exercises management control (HeidelbergCement sites), being it on-site or off-site.

The scope of this Standard covers all kind of mobile equipment as described in chapter 7.3, including logistics vehicles, Heavy Mobile Equipment, Heavy Duty trucks, and light vehicles (e.g. company cars, pick-ups, vans) operated by and for HeidelbergCement.

Contractors working for HeidelbergCement are obligated to follow this Standard and must be informed about it. They have the same responsibility to adhere to this Standard and additional HeidelbergCement Standards, affecting their work, as do HeidelbergCement employees and management.

“Should” and “can” requirements are mandatory and need to be implemented unless there are equivalent measures in place.

4 Roles and responsibilities

For Driving Safety, there are clear definitions of roles, responsibilities and accountabilities to nominated individual managers down through the management structure:

Managing Board and Country Executive Committees

The first and most important requirement to ensure sustainable and lasting success of all safety programs, including this Driving Safety Standard, is the visible leadership, commitment and involvement of the Managing Board of HeidelbergCement and the country executive management

Senior Managers and Logistics Managers

Responsibility and accountability for the implementation of this Group Standard lies with the senior local line management, logistics managers and managers from involved functions, e.g. Purchasing, HTC, CCM or CCR

In countries where English is not a common language, management has to arrange the translation of this Standard into local language.

Local line management must ensure that appropriate and effective measures are in place and complied with. They are responsible for ensuring that all relevant persons are familiar with the requirements of this Standard and that they are trained accordingly.

In general, it has to be ensured by means of contractual regulations that contractors and subcontractors are responsible for ensuring their employees comply with all the rules given below. The

responsible HeidelbergCement line managers have to ensure that contracted transport activities comply with the HeidelbergCement Group Standards.

Health & Safety Advisers

The H&S advisers support, coach, challenge, and work closely with managers. However, implementation is the responsibility and accountability of line management.

HeidelbergCement employees and contracted persons

- Follow and comply with safety rules, including the use of required Personal Protective Equipment
- Report any safety hazards they identify to their manager or supervisor
- Ensure mobile equipment is inspected for defects
- Use the equipment and safety devices supplied or given to them in accordance with any training and instructions
- Stop the use of any vehicle and isolate it, if they think that it would be unsafe to operate and immediately report it to their line manager, supervisor or responsible person

5 Definitions

Banksman	Person who directs the operation/ movement of any vehicle
Contractor	Individuals, firms or corporations contracting for HeidelbergCement Group to perform a specified work, either on a short-term (specific job) or long-term basis
Driver Training	Formal training program to ensure drivers are qualified and competent to operate a class of vehicle. Programs involve a combination of in-class theory and on-road practical assessment
Driver	Persons who are operating a vehicle in relation to company business
Edge Protection/ berms	Edge protection can be purpose built crash barriers or made from suitable materials to moderate or limit the force of a vehicle in order to impede its ability to leave the designated ramps or roadways
FOPS/ ROPS	Falling-Object Protective Structure (FOPS) is a system or structure intended to protect the equipment operator from injuries caused by falling objects, e.g. rocks whereas the Roll-Over Protective Structure (ROPS) is a system or structure intended to protect the equipment operator from injuries caused by vehicle overturns or rollovers.
Logistics Vehicle (trucks)	Any vehicle greater than 3.5 tons of fixed chassis or articulated trailer (or as defined /required by country-specific statutes, regulations, etc.). Includes off-site delivery vehicles such as concrete mixer trucks and bulk cement carriers
Heavy Duty (HD)	In between classic Heavy Dump Trucks and On-road trucks, there is a variety of truck types that are applicable for various tasks in and around a quarry operation. Examples are transport tasks (as dumper) or service tasks such as water trucks, explosive trucks etc.
Heavy Mobile Equipment (HME)	Mobile equipment used in operations, normally not allowed traveling on public roads. Includes on-site road haulage vehicles such as dumper trucks, but as well wheel-loaders, excavators, drilling machines, bulldozers, water trucks, scrapers, graders , fork lifts either company-owned, leased, hired or contracted
Journey Risk Management Plan	A management system to ensure all applicable journeys are assessed, appropriately risk minimized, documented and implemented
License	A legal, documented, personal identification authorizing the named person to drive designated classifications of vehicle
Light Vehicle	Vehicles (including mini-buses) not greater than 3.5 tons (or as defined /required by country-specific statutes, regulations, etc.). Includes passenger cars, pick-ups and vans used on company business and non-company vehicles contracted for business purposes
Mobile Equipment	Any vehicle or machine that is self-propelled and controlled by a driver or operator

Public Road	Any road or other public way not controlled by HeidelbergCement sites
Shunter/ switcher	a person who operates or guides a locomotive moving railroad car around for assembling or dissembling trains
Spotter	see banksman
Tachograph	A device that combines the functions of a clock and a speedometer. Fitted to a motor vehicle, a tachograph records the vehicle's speed and whether it is moving or stationary. It can also be used to record driving hours of a vehicle
Two-Way Communications Device	Any device used for electronic communication between two or more persons; this includes mobile phones (cell and satellite), personal digital assistants, radios, and text messaging devices
VDR	Vehicle Data Recorder - a mechanical and/or electronic recording system which records the following key driving performance information for individual drivers such as driving hours, speed, acceleration, deceleration, transmission range information, parking brake position, master warning position, and seat belt status. Exact features depend on the VDR used
Wheel Chocks	Wedges of sturdy material placed next to a vehicle's wheels to prevent accidental movement

6 Safety Measures for Drivers

This chapter outlines safety measures for drivers that must be adopted by HeidelbergCement companies and their contractors.

These may be supplemental to the requirements of local legislation and/or local site rules. In the event of any conflict or contradiction between these elements and local legislation/local site rules, the applicable law/site rule must be followed, with the intention of at least meeting the equivalent of this Standard (as far as they are in compliance with local legislation/site rules). In promoting and implementing this Standard, HeidelbergCement together with industry associations and its contractors are encouraged, when appropriate and relevant, to work closely with local governments and/or competent authorities.

6.1 Staying Alert and Preventing Fatigue

Drivers are not allowed to operate a vehicle unless they are appropriately rested and alert.

Drivers are responsible for reporting for duty appropriately rested and fit for work. The HeidelbergCement companies must inform drivers on how to identify driver fatigue, alertness problems, and means of addressing them.

HeidelbergCement companies should ensure that reward mechanisms do not incentivize drivers to drive excessive hours, which could lead to driving while tired or fatigued.

6.2 Drugs and Alcohol

Drivers are not allowed to operate a vehicle while under the influence of alcohol, drugs or any other substance or medication that could impair their ability to safely operate the vehicle.

Drivers must comply with any local regulations and their company rules related to drugs and alcohol and smoking.

Companies where legislation allows undertake such testing following incidents involving vehicles onsite.

6.3 Seatbelts

Drivers and passengers of any vehicle must use the provided seatbelts at all times the vehicle is in motion.

Every driver operating any vehicle on behalf of HeidelbergCement must ensure that all passengers are wearing their seatbelt before the vehicle is placed into motion.

Taxis and buses / coaches not fitted with seatbelts are only used where no alternatives exist. To minimize the risk, front passenger seats (close to the windscreen) and seats in buses adjacent to doorways are not occupied unless seatbelts are fitted.

Seatbelts must be used in the designated way. The use of devices that stop, loosen or modify the proper functioning of seatbelts is forbidden.

For trucks equipped with sleeper berths: if the berth is used by a person to rest while the vehicle is being driven by someone else, for this purpose certified restraint means must be provided and used at all times the vehicle is in motion.

6.4 Passengers

Drivers are not allowed to accept passengers, when being on company business, unless authorized by a HeidelbergCement responsible manager.

Drivers must not bring any passengers, including so-called helpers/ apprentices, into any HeidelbergCement sites, unless authorized by local line management.

6.5 Loads

Loads carried by vehicles should be safely secured and within the weight limits.

HeidelbergCement companies must provide appropriate means to ensure drivers are able to secure/ unsecure the load safely, especially if this process requires work at height[1], e.g. by the use of lifeline systems above the vehicle or platforms alongside the vehicle.

6.6 Respecting Road Rules and Road Signs (on-site and off-site).

Drivers must be familiar with and respect vehicle codes, laws and regulations (i.e., speed limits, stop signs, etc.) at all locations in which they operate the vehicle (see chapter 7.1).

6.7 Mobile phones and two-way communication devices

Any use of <u>hand-held</u> mobile phones and mobile devices when driving a vehicle is prohibited.

Passive listening and response to operational emergencies using mobile phones, two-way radios or “Citizen Band” (CB) radios may be allowed; however, their use is kept to the minimum necessary in order to communicate and control the hazards and risks of the journey being undertaken. In all cases the vehicle should be in a stationary position before responding to any such radio calls.

The use of mobile devices when driving is a distraction and significantly increases the risk of a vehicle incident. HeidelbergCement recognizes that while hands-free devices are legally permitted in many countries, distraction caused by conversations still impede alert driving behavior. Thus HeidelbergCement companies encourage drivers not to use mobile devices while driving, including use of hands-free devices.

[1] See Group Standard “Work at height”

6.8 Personal Protective Equipment (PPE)

Wearing of high-visibility clothing at all operational workplaces of HeidelbergCement is a mandatory requirement.

The compulsory HeidelbergCement Group minimum requirements[2] for PPE on all operational workplaces are safety helmet, eye protection, safety boots and high visibility clothing.

All drivers must follow these rules or the local adaptations of those as to what is required for the area they are to operate or load.

In addition to this, drivers of logistics vehicles doing business for HeidelbergCement companies (own as well as contracted) are obliged to wear the minimum set of PPE whenever being outside their cabin at any customer or construction site[3].

All PPE must be in good condition. High visibility clothing has to comply with requirements for day or night use, i.e., a combination of fluorescent and retro-reflective material as defined in applicable local or international standards.

7 Safety Measures for Line Management

This section outlines safety measures for the line management that must be adopted by all HeidelbergCement companies and their contractors to improve long-term driving safety performance.

These may be supplemental to the requirements of local legislation and/or local site rules. In the event of any conflict or contradiction between these elements and local legislation/local site rules, the applicable law/site rule must be followed, with the intention of at least meeting the equivalent of this Standard (as far as they are in compliance with local legislation/site rules). In promoting and implementing this Standard, HeidelbergCement together with industry associations and its contractors are encouraged, when appropriate and relevant, to work closely with local governments and/or competent authorities.

7.1 Driver Qualification and Selection

Drivers must be qualified and capable of driving safely according to established criteria.

The driver selection process for vehicles used on public roads (e.g. light vehicles, logistics vehicles and Heavy Duty vehicles):

- Assures that the applicant holds the appropriate class of legal license for the vehicles that the person is expected to drive or operate (this applies for all drivers, including contractors, driving on behalf of HeidelbergCement)
- If procurable, explores the past accident or prosecution history before selection for interview
- Where applicable, test the driver's knowledge on the local rules of the road
- Must inform drivers about HeidelbergCement company policies and Standards related to driving

The qualification process for Heavy Mobile Equipment and Heavy Duty Vehicles

- Assures that drivers of Heavy Mobile Equipment and Heavy Duty Vehicles are properly trained and competent to operate the equipment
- Assures that any legal requirements for operating the equipment are fulfilled

[2] See HeidelbergCement Occupational Health & Safety Policy
[3]Here local rules may apply in addition according to the rules of the customer or contractor in control of this site

7.2 Driver Training and Assessment

All drivers of logistics vehicles, Heavy Mobile Equipment (HME), and Heavy Duty Vehicles, who drive on company business, must receive initial driving (induction) training, together with ongoing training based on risk assessment[4].

For high-risk environments and specialized vehicles, additional training may also be needed.

Driving training includes at least the following:

- Review of HeidelbergCement company policies and Standards related to driving
- Review of lessons learned from past incidents and accident trends
- Guidance how to report incidents and near hits for unsafe situations
- Defensive driving techniques (including safe travelling distance, eye movement and focus length, anticipation, braking, means to avoid overturning)
- Impact of blind spots on visibility
- Tiredness and fatigue prevention
- Effects of medication and substance abuse and HeidelbergCement rules re drugs and alcohol
- Vehicle restraint systems (seatbelts) and safety equipment
- Pre-start checks, inspection and defect reporting
- Proper seating position
- Journey risk management techniques (where appropriate)
- Safe driving behavior in quarries (for drivers of light vehicles, if applicable)
- Local driving hazards (including personal security), regulations and culture
- Load security

Additional elements might be:

- Fuel efficiency

The need for refresher training and assessment is based on a driver's performance and risk assessment, with refresher training programmed at appropriate intervals following initial training, but at least annually. If unsatisfactory driving skills and behavior do not improve through training and coaching, drivers are taken off driving duties.

The local HeidelbergCement Company should:

- Use a qualified internal trainer or one accredited by a recognized body
- Customize the content of the training course so that it meets its specific needs
- Regularly review the Standard of training to improve course quality and relevance
- Issue a Drivers Handbook (adopted to country requirements) to be handed out to all drivers.

7.3 Vehicle selection and specification

Wherever possible, three-point integrated seatbelts for all seats in a vehicle should be specified at time of purchase.

Retrofitting of three point safety restraint systems to a vehicle that was supplied with no seatbelts or only a lap-belt might create compliance issues with the vehicle homologation and requires close cooperation with the manufacturer, authorities, and/ or insurance companies. If the risk assessment indicates that a three point safety restraint system is required, but retrofitting is not possible, it is recommended to source a suitable designed machine and discontinue the use of the current machine.

HeidelbergCement companies and their contractors are required to consider the following additional safety equipment for the vehicle and to train drivers in their use:

- Fire extinguisher (where deemed appropriate)
- First-aid kit and flashlight/torch
- Suitable spare wheel and tire (where deemed appropriate)

[4] Depending on country specific rules, results of risk assessment or an individual's accident history, driver trainings might as well be applicable for drivers of light vehicles.

- Tool kit and vehicle spare parts (bulbs, fuses, where deemed appropriate)
- Warning triangles

7.3.1 Light vehicles

The following minimum equipment must be installed on light vehicles newly purchased:

- 3 point integrated seatbelts for all seats (see above)
- Head rests (all seats)
- Air bags (at least for driver and front passenger seat)
- Driver and passenger side-mirrors
- Anti-lock brakes

HeidelbergCement companies and whenever possible their contractors should restrict the use of employee private vehicles for company business unless the vehicle is compliant with the good practice above.

If the risk assessment indicates that light vehicles entering areas with Heavy Mobile Equipment traffic, all light vehicles being at risk must be equipped[5] with

- A “buggy whip” (2,5 m long rods with a reflective red/ reflective warning triangle)
- Strobe or flashing lights
- Retro reflective striping at minimum at the rear
- Means of communication when entering quarries (CB Radio, hand held radio, only to be used in the stationary position)

In case of frequent use in vicinity of HME (e.g. in quarries): New light vehicles must be purchased in car colors, which do not blend into the background to ensure good visibility (e.g. no black) and with reversing audible alarm system (all vehicles with limited rear visibility)

7.3.2 Logistics vehicles (trucks used on public roads)

To ensure that transport activities are carried out effectively with minimum risk to the driver, to the load and to other road users, the right vehicle for the task (taking into account type and duration of journeys for both driver and vehicle) has to be selected.

The following minimum equipment is state of the art and recommended to be installed on newly purchased logistics vehicles (over 3.5 tons). Existing vehicles should be upgraded and prioritized as per HeidelbergCement company risk and cost evaluations.

- 3 point integrated seatbelts for all seats (see above)
- Left and right-hand wing mirrors, and convex mirrors for blind spots
- Mirror covering the front of the vehicle (recommended 1.5m ahead)
- Air bags (minimum for driver), as available as standard equipment from manufacturers
- Anti-lock brakes
- Reversing audible alarm system (all vehicles with limited rear visibility)
- Reversing camera - additional front and side cameras are recommended to allow a 360° view
- Wheel chocks (for routine loading or discharge operations)
- Tachograph (device that records the distance and time traveled by a vehicle)
- Rubber pads on all pedals (e.g., clutch and brake) to prevent slippage
- Rear under-run protection to protect against damage from rear-end-collision and to prevent contact by a vehicle colliding with the chassis rails (for vehicles greater than 12.5 tons)
- Side under-run protections and warning plates to warn protect (motor)cyclists from getting under the rear tires
- Retro reflective marking on the rear of trucks and their trailers to improving the conspicuity.[6]
- Tires that comply with statutory minimum tread depth (no retread tires on steer axles)
- Cargo stowage devices so that equipment is not free to move around in the cabin

[5] Alternatively, a risk assessment based approach is acceptable with the assessments being site specific and conducted locally.
[6] Depending on results of risk assessment and local requirements retro reflective markings might be necessary as well for the front of vehicles.

- Mudguards and mud flaps
- Warning signs for cyclists where practicable
- Where deemed appropriate, tarpaulins or other means to cover the load-bearing area when driving on public roads, to minimize potential material, dust and debris release (if ever possible, the handling of coverage should not require work at height)
- Tripper trucks should have automatic tailgates and auto sheeting systems fitted

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

Loose items that might cause injury in an accident are not carried in the driver/ passenger compartment of any vehicle. Any vehicle with non-segregated storage is equipped with a cargo net or equivalent to separate the storage area from the driver/ passenger area.

7.3.3 Heavy Mobile Equipment (HME)/ Mobile plants

Newly purchased HME

A list of mandatory safety features for all newly purchased Heavy Mobile Equipment is provided in the following document[7]. This list will be reviewed and updated by experts from HTC, CCM and CCR when necessary, preferred on an annual basis. Deviations from these specifications are only allowed based on local risk assessments and must be authorized by the country general manager in cooperation with the person responsible for H&S in the country.

http://unite.grouphc.net/wok/hs/HS_goodPrac/HTC_Yellow%20Machine-safetylist-31Okt2014.pdf

The list covers topics as:

- Access and egress
- Maintenance
- View (mirrors, cameras, flash lights)
- Safety equipment
- Service
- Working environment (cabin, communication)

Although currently not included in the above list, newly purchased Heavy Mobile Equipment must be equipped with retro reflective markings at minimum at the rear. This is a requirement for all HME greater than 1 tonne including those of contractors.

Retrofitting existing HME

To improve the visibility of Heavy Mobile Equipment it must be equipped with retro reflective markings at minimum at the rear and retrofitted with reversing audible alarm system (reversing beeper). This is a requirement for all HME greater than 1 tonne including those of contractors.

In addition, due to the increased risk for persons being harmed during reversing of Heavy Mobile Equipment greater than 10 tonnes, these must be retrofitted with reversing cameras, including HME of contractors.

7.3.4 Heavy Duty (HD) on-road vehicles

Heavy duty (used as dumpers, explosive vehicles, water bowsers etc.) must apply to the same standard as requested above.

Important requirements are:

- 3 point integrated seatbelts for all seats (see above)

[7] This requirement comes into force with the publication of the revised version 4.0 of this Standard.

- 2 independent brake circuits mandatory
- Visibility at same standard as for HME
- Tires suitable for off-road condition
- FOPS and/ or ROPS or equivalent standard (different norms apply)[8]

To improve the visibility of heavy duty (HD) vehicles used on–site they must be equipped with retro reflective markings at minimum at the rear and reversing audible alarm system (reversing beeper). This is a requirement for all HD vehicles including those of contractors.

In addition, due to the increased risk for persons being harmed during reversing of HD vehicles, these must be retrofitted with reversing cameras including those of contractors.

7.4 Mobile equipment maintenance and servicing

HeidelbergCement companies must ensure that all vehicles are in a roadworthy condition and are regularly assessed as part of a planned maintenance program.

HeidelbergCement companies must provide a planned approach to vehicle inspections and maintenance, including daily and weekly checks by the driver, and planned maintenance programs with clear standards and maximum periods between services. Where legally required, vehicles undergo inspections by government bodies and are issued with valid inspection certificates.

If not already covered by mandatory governmental inspections, the local business is encouraged to perform regular (e.g. every 3 months) brake performance tests (as brake ratios) for all rubber-tired HME and HD vehicles used on HeidelbergCement locations. This would be done best by using electronic brake testing equipment. Many of the service companies offer this as an additional package to maintenance of mobile plant.

Maintenance must be regularly assessed and documented. This includes ensuring quality replacement parts, particularly for safety-critical elements such as brakes or tires, and monitoring of the durability of parts and any vehicle defects, so problems and trends can be identified in time.

“In-house” servicing and maintenance must only be undertaken by people trained, qualified and/ or licensed to do so and in designated maintenance areas. Reference should be made to the corresponding manufacturer’s service handbook.

Any unauthorized maintenance on HeidelbergCement Company sites, either by own drivers or by contractor or customer drivers is prohibited. Emergency repairs undertaken by others are promptly reviewed and approved by a licensed or authorized mechanic at the earliest opportunity.

7.5 Pre-start Checks

HeidelbergCement companies must ensure that procedures are established to ensure the equipment is in a roadworthy/ safe condition before it is used

- To check and inspect all kinds of heavy equipment (trucks and HME) before use by the driver/ operator using a standardized checklist (examples are available on UNITE[9])
- To record the results of the inspection for review by responsible supervisors / managers and for audit purposes
- That define criteria under which circumstances and how equipment must be taken out of service, isolated, tagged and not driven until defects are rectified.
- To ensure that pre-start checks on company vehicles are being carried out.

[8] Depending on results of risk assessment and local requirements and legal regulations.

[9] See: http://unite.grouphc.net/wok/hs/Pages/Good%20practices_en-US.aspx

For trucks being operated on public roads, the pre-start check must be performed prior to each major trip or daily if the trip is more than 24 hours long or as legally required by law. Any other mobile equipment must be checked at the beginning of each shift.

The pre-start check should be conducted in good light so potential faults or defects are not missed.

7.6 Vehicle Data Recorder Systems (VDRs or Black Boxes) for logistics vehicles (trucks)

HeidelbergCement companies that may have driver behavior issues[10] or who operate in high-risk and very high-risk geographies should consider fitting vehicles with an approved In Vehicle Monitoring System (IVMS) or Vehicle Data Recorder (VDR) that produces journey data to be analyzed and fed back to the drivers and supervisors.

The classification of countries as high and very high risk geographies is based on data provided by the Word Health Organization and visualized by International SOS in cooperation with the Global Road Safety partnership organization in an interactive map[11].

Such tools are recording against a driver identification number or key, the speed, any harsh acceleration or deceleration, route taken, kilometers or miles driven and driving hours.

Data management systems include the following:

- Procedures to ensure monitors are installed, working properly, secured against theft, and have alarm levels consistent with local driving conditions
- Data from the monitors is downloaded, analyzed and communicated to provide individual driver performance feedback for improvement and skills development

A risk-based methodology may be followed to phase in and set the pace of introducing VDR systems in certain fleets and business operations.

The recommendations of this section are subject to compliance with local legislation/ site rules (e.g.: data protection law). In any case drivers must be informed where these devices are fitted to vehicles, before they take charge of the vehicle.

7.7 On-site Road and Traffic Management

HeidelbergCement companies have to manage their on-site traffic by appropriate means.

The following controls must be in place at HeidelbergCement company sites:

- **Circulation/traffic/route plan** – suitably marked at site entrance. If appropriate a printed version should be available and issued to drivers on arrival
- **Signage** – clear and suitably marked traffic patterns, road rules (Yield/Give Way), site rules (PPE requirements), site office location, speed limits, turning and parking areas, prohibited areas
- **Driving rules** – vehicle speed rules must be clearly posted at all locations on-site and appropriate for site conditions. Rules must be defined and communicated by appropriate means e.g. related to overtaking of mobile equipment, minimum following distances, parking of equipment
- **Lighting** – appropriate, risk assessment based, lighting on traffic routes, pedestrian routes, walkways, and parking areas to improve visibility and security for people and vehicles
- **Parking/Drivers rest areas** – clearly designated, signed and distanced away from main routes and dangerous areas. Every effort should be made to park the vehicle so the first

[10] This might be the case if incident analysis indicates that inadequate driver behavior is the main reason for severe accidents.
[11] Interactive map: http://www.travelriskmap.com/, select map layer “Road Safety Risk”

move is forward when leaving any parking space. In case reversing is necessary, vehicles should be required to reverse park into the designated parking bays, whenever possible

- **Customers** – access and movement of customers on HeidelbergCement sites should be limited to clearly defined areas and, whenever possible, separated from normal plant traffic
- **Pedestrian areas** – safe pedestrian zones and walking routes clearly signed and marked to separate people from moving vehicles at all times. These areas must be kept in safe condition, e.g. in winter time free of ice and snow.
- **Edge protection/ berms** – if the risk assessment reveals that HME may accidently leave the designated ramps or roadways, edge protection constructed by suitable materials must be provided, being either 1.5m (5 feet) or the radius of the largest wheel, whichever is the larger.
  - The front profile of the edge protection should be made so that the vehicle will not drive up and over
  - Boulders on their own are not suitable as edge protection but they can be used to delineate haul roads around flat areas of the quarry or when backed with scalping material
  - Higher berms should be installed where it is likely that a vehicle may go through the edge protection.
  - Alternatively a risk assessment based approach is acceptable with the assessments being site specific and conducted locally.
- **Roadways for Heavy Mobile Equipment/ Heavy Duty Vehicles** – for single lane (one-way) traffic, the lane should be 2.5 times the width of the widest vehicle. For double lane (two-way) traffic, the lane should be 3.5 times the width of the widest vehicle. This increases to 4 times the width of the widest vehicle at bends and corners.
  - Reflective markers should be utilized on road edges for operations that operate in low light or night conditions
  - Alternatively a risk assessment based approach is acceptable with the assessments being site specific and conducted locally.
- **Right of Way** – sites must establish appropriate “right of way” rules based on risk assessment, taking into account the needs of Heavy Mobile Equipment, special transports (e.g. of explosives), ambulances/ fires trucks, and pedestrians
- **Reversing** – mitigate the need to reverse by using one-way systems or designated turning areas. Where reversing is necessary, the activity must be risk assessed and appropriate control measures must be put in place, including:
  - Fitted lights, convex mirrors, CCTV, audible reverse alarms and (optional) back-scan radar systems (Ultrasonic reversing sensors may be used)
  - Reversing areas designed with adequate space and edge protection
  - Where necessary according to the risk assessment, banksmen/ spotter should be used. This task must only be done by own employees, being trained, properly equipped with safety tools and being aware of the inherent risks
- **Railway Traffic** – Sites must establish appropriate means to prevent accidents of pedestrians or mobile equipment with any kind of rail traffic
  - Embedded rail tracks should be either safeguarded by appropriate means (e.g. barriers or railings) or trains guided through the site, e.g. by a shunter
  - Rail tracks must have appropriate crossings to allow workers to cross the tracks safely
  - Rail track crossings for trucks must be secured in a proper way
- **Communication** – establish clear rules and protocols for the communication between various parties (e.g. banksmen, spotters, shunters, driver of light vehicles and HME operators, contractors, subcontractors …) to avoid misunderstandings
- **Awareness and Training** – orientation and safety training for employees, contractors, clients and other site visitors must include information regarding the site circulation plan and other site-specific traffic safety rules:
  - Seatbelts to be worn at all times
  - No unauthorized on-site truck maintenance

- No sleeping under or around parked vehicles. This must as well be clearly signed in such areas of risk.
- Use of audible ear-phones such as radios, iPods or MP3 players is prohibited
- The risks of using mobile phones or other two-way communication devices near moving or parked vehicles

Site Management must make clear to everyone entering company premises (employees, contractors, clients and service providers) that driving in the workplace requires the same or a higher standard of care as on public roads.

7.8 Journey Hazard Management

Journeys on public roads in high-risk and very high-risk countries[12] especially at night or during inclement weather must be assessed and risk control plans must be put in place.

Risk assessments, particularly for long-haul journeys, nighttime driving, use of higher-risk routes and areas, weather conditions, etc. must be implemented. A Journey Management Plan, based on the findings of the risk assessment must be put in place at least for all journeys in identified high and very high-risk countries. Journeys must be planned to ensure safe working hours are maintained and fatigue driving is prevented.

The Journey Management Plan ensures that:

- A journey manager is identified (e.g., shift supervisor)
- A pre-trip briefing is held between the driver and shift supervisor to discuss any changes regarding: routes, stops, hazards, loads, people and contingency plans for en-route emergencies (e.g., breakdown procedures)
- The route is clearly defined and mapped
- Potential driving hazards, especially dangerous intersections, are identified in advance, taking into consideration terrain, time of day, weather, known dangerous zones (black spots), speed limits, holidays (especially when these may involve fasting or abuse of alcohol)
- Appropriate vehicles are assigned for the journey considering identified hazards
- Only qualified drivers are assigned, possessing valid certification for the type of vehicles to be used
- Appropriate means of communication between driver and journey manager are available and a communications protocol agreed (e.g., communicate to the destination or maintain control with the vehicle if managed from the point of origin)
- Vehicles are inspected prior to commencing the journey (see Pre-start Checks)
- Rest-stops are scheduled and drivers requested to take the required stops
- An estimated destination arrival time is given and people at the destination informed. They should activate a contingency plan if the driver does not arrive at the estimated time
- All trips during hours of darkness or times of reduced visibility should be systematically reviewed for risks. Risk assessment should consider the risk of blowing snow, dust, smoke, fog, heavy rain, security threats and local driving requirements and any other reasonably foreseeable risks
- Drivers are physically and mentally fit, giving particular attention to past hours worked, past amounts of sleep, time of day
- The driver clearly understands his responsibility to report completion of the trip to the journey manager or scheduler

Where appropriate, drivers should have the lights of the equipment on at all times, e.g. where legally permissible and required by the local HeidelbergCement company.

When scheduling new journeys, the HeidelbergCement company consults with drivers and encourages the continual feedback with them to help identify and mitigate all known and potential journey risks.

Where situations dictate, companies should work with local agencies or authorities to help improve the safety of the road network and road signage.

It is essential that managers, schedulers and staff should not pressure or authorize any driver to rush or take unacceptable risks.

[12] See 7.7. - Interactive map: http://www.travelriskmap.com/, select map layer “Road Safety Risk”

8 Transport Contractor Management

Off-site transport by contractors can present significant challenges in terms of safety management control by HeidelbergCement companies, this nonetheless, must be actively addressed, as contractor transport can involve contractor and third party fatalities and injuries.

HeidelbergCement believes that everyone's safety will improve if contract driving companies implement similar safety measures for Driving Safety within their companies.

While it is clearly the responsibility of the Contractor to implement these measures in its fleet and activities, HeidelbergCement companies should encourage contractor adoption of this Standard as part of the driving contract management, provided such encouragement will not interfere with local contract law nor create any potential liability for HeidelbergCement.

Specifically, HeidelbergCement companies must ensure:

- Contractor Driving Safety is included as part of the contractor pre-qualification
- Contractor Driving Safety is embedded in the contract definition and award phase
- Contractor Driving Safety is part of the pre-commencement phase risk review
- Contractor Driving Safety is regularly reviewed during contract implementation
- Contractor Driving Safety is included as part of the post-contract review.
- Any accidents with involvement of contractors on duty for HeidelbergCement companies (on-site and off-site) are reported to the respective HeidelbergCement contact person and H&S adviser

The above process steps are aligned with the HeidelbergCement Standard "Visitor and Contractor Safety" in which more details on Contractor safety management can be found. They are also aligned with the second CSI document "Recommended Good Practice on Contractor Safety Management", signed by HeidelbergCement in 2009.

When assessing a contractor's suitability to provide transport services, HeidelbergCement companies may work with key support groups within their organizations such as Legal, Procurement, and Logistic. These groups can support business to include Driving Safety expectations, performance and assurance requirements in contract negotiations, to develop or amend contracts and to provide coaching and guidance where recognition of risk is required.

Criteria for the selection of contractors and transport service providers are:

The contracting company has a Driving Safety policy or commitment in place that:

- Requires compliance with relevant legislation
- Is appropriate to the nature and scale of the organization's risks
- Considers the client's specific requirements
- Demonstrates commitment to improving Driving Safety performance

The contracting company has a process for managing Driving Safety:

- Drivers are trained, certified, and hold the appropriate license and are medically fit to operate the vehicle
- Drivers are rested and alert
- Vehicles are inspected and faults rectified
- Emergency response procedures are in place for vehicle incidents
- Risks of journeys are assessed and appropriate controls taken
- Driver performance is appropriately addressed (rewards / sanctions)

9 Implementation Process and Control

A gap analysis against new requirements due to the revision must be performed within 3 months after publication of the revised version of this Standard. In order to fill any identified gaps, an action plan with responsibilities and due dates must be set up immediately and implemented within the given period.

Some specific deadlines for new requirements in version 4.0 of this Standard:

- 7.2 Driver training
  - Issuing and distribution of a driver handbook by the end of 2020
- 7.3.1 Light vehicles
  - New light vehicles used frequently in quarries to be purchased/ leased/ rented in car colors, which do not blend into the background on issue of version 4.0 of this Standard
- 7.3.2 Logistics vehicles
  - All new logistics vehicles to be purchased/ leased/ rented to the new standard on issue of version 4.0 of this Standard
  - All existing HeidelbergCement owned/ leased/ rented logistics vehicles to be upgraded to the new standard by the end of 2020
  - All contractors' vehicles transporting on HeidelbergCement behalf to be upgraded by the end of 2020 or on renewal of contract if earlier.
- 7.3.3 HME and 7.3.4 HD vehicles
  - All new HeidelbergCement machine to be purchased/ leased/ rented to the required standard on issue of version 4.0 of this Standard
  - All existing HeidelbergCement owned/ leased/ rented HME and HD vehicles to be upgraded by the end of 2020
  - All contractors HME or HD vehicles working on our behalf to be upgraded by the end of 2020 or on renewal of contract if earlier

Any exception to the above requirements and deadlines need to be signed off on a country-by-country basis by the Country Manager with maximum end deadline of the end of 2022

The implementation and compliance with this Standard has to be checked through appropriate measures, such as H&S Management system audits

Contracts should be reviewed according to the requirements of this Standard and adapted as necessary and appropriate, but at the latest on renewal of the contracts.

10 Further Information

Additional information for training purposes are provided at the Group H&S homepage or can be requested at the contact given below: (under progress)

Homepage: http://unite.grouphc.net/wok/hs/Pages/default.aspx

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