

Cement Sustainability Initiative (CSI)



Safety in the Cement Industry:
*Guidelines for measuring and
reporting*

Updated May 2013

Health and safety

Version 4.0

Preface

Cement Sustainability Initiative (CSI) members have acquired considerable experience in reporting their safety data. However, the process identified that some of the original definitions needed clarification in order to ensure sector-wide reporting consistency.

These clarifications were developed in several CSI Task Force 3 (Health and safety) meetings, and then a subgroup finalized them.

Collated aggregated CSI safety data is available on the CSI webpage at www.wbcdcement.org/safety. The data show that the cement sector has made good progress on reducing time lost to injuries; however, similar progress has yet to be achieved on fatality reductions. All CSI members are strongly committed to safety improvement and are determined to achieve progress in the years ahead.

CSI members have also committed to independent verification of their safety data, and the agreed guidelines are included as [Appendix 1](#) in this publication. Some CSI members already undergo extensive verification, while others are now just starting on that process.

Members are also extending safety reporting to include associated activities, such as aggregates, ready mixed concrete, building product manufacturing, marine and rail (unless the CSI company cannot select marine and rail operators).

All CSI members should now have clear programs in place to report all safety data from all activities and in line with CSI reporting guidelines, in order to provide consistent safety reporting across the building materials sector.



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The Cement Sustainability Initiative (CSI)

Background

Cement is one of the most widely used substances on the planet. Each year, nearly three tons of concrete (containing 10-15% cement) are consumed for each man, woman and child. Making cement is an energy and resource intensive process with both local and global impacts. Recognizing these facts, several cement companies initiated the Cement Sustainability Initiative (CSI) as a member-led program of the World Business Council for Sustainable Development (WBCSD). Currently, 24 cement companies are member of the Initiative (accounting for around 30% of global cement production). Launched in late 1999, the Initiative has since enabled:

- 1 Independent research on the current performance of the industry and the major sustainability issues it faces;
- 2 Facilitated stakeholder dialogues around the world;
- 3 A set of independent recommendations to improve performance; and
- 4 An industry *Agenda for Action* launched in 2002 to address the issues raised and latest *Progress Report* published in 2012.

The CSI has effectively added value and contributed to sustainable solutions through the development of transparent and commonly agreed methodologies.

Current status

Currently, nine Task Forces, each chaired by one or more of the member companies, are working on issues identified in the original CSI *Agenda for Action* as well as more recently primarily good practice

guidelines, tools and procedures to be used by all CSI companies at their operating facilities and made available on a world-wide basis for other cement companies to adapt as desired.

Topics include:

- > Climate protection
- > Co-processing
- > Health and safety
- > Emissions
- > Biodiversity and land stewardship
- > Communications
- > Sustainability with concrete
- > Water
- > Supply chain management

The development of CSI guidelines and tools involves active and regular stakeholder consultations through facilitated stakeholder workshops and online dialogues in which experts from business, academia, non-governmental organizations and regulators provide ongoing expertise to specific task forces as requested.



Performance goals and targets

Work under this Initiative is divided into two areas: joint projects (such as guideline development) and individual company activities.

The Initiative has not and does not plan to establish group targets for all member companies. This choice was made for two reasons: first, individual companies are far better able to set appropriate targets and timetables for their organizations. In a global initiative such as this, different companies and different countries will necessarily have different priorities and resources available.

Meaningful targets can only be set in reference to meaningful company values and resources.

Second, from a competitive standpoint, competition laws strictly limit the kinds of activities companies can engage in together. Several of the subject areas of the initiative are also strategic business issues for the companies involved. Group target setting could potentially pose serious legal issues.

Employee health and safety

Ensuring healthy and safe working conditions for employees and contractors is one of the most important issues for the cement industry. CSI member companies recognize that more attention should be paid to this area across the whole industry and as such are committed to playing a full part in that process. For that purpose, Task Force 3 on Health and safety, with participation from all CSI members, continues to address topics for improvement.

From what CSI members do know, the fatality and injury rate in the cement industry is higher than in others, such as petrochemicals and petroleum refining. CSI members regard this as unacceptable and believe that it is affecting the reputation of the cement industry as a whole.

This report provides standard, cross-company systems to measure, monitor and report on safety performance that individual companies can implement.



Health and safety

The purpose of this document is to ensure the accurate register of all fatalities and occupational injuries of CSI company members in order to have the same basis on which to produce a consolidated report of safety indicators.

- 1 This consolidated CSI report will allow a common platform enabling reporting of industry-wide figures in order to compare the cement industry against others and to have proper benchmarking.
- 2 More importantly, the CSI is committed to improve the industry safety record. So another objective of having the same reporting platform is to have a starting point and subsequent means of tracking these indicators each year to evaluate progress in reducing accidents and injuries for anyone who may be affected by CSI member company operations.

To ensure achievement of this objective, each member company will share an annual safety report with the CSI using the definitions and indicators specified in this document. The CSI will consolidate the information into a single report.

- 3 This report also aims to encourage transparent and consistent future public safety reporting among all CSI members, and thereby to encourage excellence in safety performance throughout the industry.

Each CSI member company may, of course, decide to publish its safety data within its annual report or corporate sustainability report. Such reporting should ideally be in accordance with the definitions and indicators used in this document. The CSI actively supports publication of safety data by its members as part of the industry's wider social responsibility commitments.

Since January 2012, CSI members have been required to submit, as part of their accident data, working hours for contractors working on site at cement operations. External verification will be mandatory from 2014 at the latest.



Glossary of definitions

Directly employed

Own employees, including full-time, part-time and temporary employees (temporary employees should also include individuals hired on a daily or hourly basis), with part-time and temporary employees reported as full-time equivalents. These include employees in all companies where there is safety management control and companies where there are management/technical agreements. (See section on [Joint ventures and associates](#).)

Contractors/subcontractors

Contractors and sub-contractors (sub-contractors are defined as contractors of contractors), also reported as full-time equivalents. This includes all individuals, employees of firms or corporations contracting for performance of specified work, either on a short-term (for a specific job) or long-term basis (such as drivers or maintenance crews). Where the company is responsible for the collection or delivery of goods and contracts a transport company to do this, the involved drivers of these trucks are deemed to be contractors/subcontractors.

Third party

Any person not categorized as directly employed or contractor/subcontractor. Third parties typically include, but not limited to:

- > Customers and visitors to company locations (whether specifically invited or not);
- > Drivers or passengers or other road users involved in off-site accidents with company or contracted vehicles, but only if there is company or employee (direct employed or contractors/subcontractors) culpability (see definition of [Culpability](#));
- > Workers at someone else's premises, for example construction sites, involved in accidents but only if there is company or employee (direct employed or contractors/subcontractors) culpability.

Where transport is carried out as an independent service (for example by a courier) for goods such as parcels or spare parts for equipment, the related drivers may be regarded as third parties.

Exemptions from reporting

Excluded in all cases from reporting are all fatalities and lost time injuries (LTI):

- > In private or public transport, or company provided cars to and from the assigned work location, but not if transport is organized and under the responsibility of the company, for example using a company or contracted bus or vehicle.
- > Due to criminal acts or illegal acts by third parties, for example trespass when the CSI member company has provided all reasonable protection and deterrents; or driving while drunk, on the wrong side of the road, speeding etc. But not, if a direct employee or contractor/subcontractor acts illegally.
- > The above exemption due to criminal or illegal acts applies to incidents involving directly employed, contractors/subcontractors and third parties caused by the criminal or illegal act of a third party when independently proven by a thorough investigation and/or after subsequent confirmation or prosecution by police or courts, and only when the CSI member company, its direct employees or contractors/subcontractors and vehicles, are not in any way at fault for causing the fatality or LTI.
- > Due to natural causes, which may include events like an earthquake or tsunami, as well as human events such as a heart attack, acts of war or terrorism, as well as personal attacks and suicide.

Fatality

A death resulting from a work-related accident, with no time limit between the date of the accident and the date of death; fatalities are reported for direct employees, contractors/subcontractors and third parties. (For exemptions, see definition of [Exemptions from reporting](#).)

Fatality rate

Number of fatalities per 10,000 people directly employed.

Lost time injury (LTI)

A work-related injury causing the absence of one or more working days (or shifts), counting from the day after the injury, before the person returns to normal or restricted work. LTIs are reported for directly employed and contractors/subcontractors; LTIs to third parties are not reported as there is no basis for counting lost working days. (For exemptions, see definition of [Exemptions from reporting](#).)

If two (or more) people are injured in any accident, then the event is to be counted as two (or more) LTIs, as well as the lost days for each injured individual.

LTI frequency rate

Number of LTIs per million hours worked.

LTI severity rate

Number of lost days per million hours worked. Lost days may be reported on a calendar or working day basis, but the basis chosen must be clearly stated in reporting: as established in the definitions section, it is agreed that these bases are linked by the “Masterson Factor” where Lost Working Days x 1.5 = Lost Calendar Days.

Worked hours

Actual hours worked. Worked hours are calculated as follows:

- > Directly employed = All worked hours of all personnel engaged in the scope of the CSI safety reporting is taken into consideration.
- > Contractors/subcontractors = All worked hours of all personnel of contractors and subcontractors is taken into consideration if such personnel was engaged in activities on company premises. Transportation, loading and unloading activities, even executed on the premises of the company, are excluded.

Culpability

Culpability is understood to mean fault for causing the incident as established beyond reasonable doubt through investigations by the company and/or local independent authorities.



Data exclusion or inclusion

Clarification regarding exclusion or inclusion of data in CSI safety indicators in the scope of the cement operations

Several member companies operate in several different business sectors (for example asphalt, ceramics, chemicals, aggregates, ready-mixed concrete, etc.) in addition to cement production. For the purposes of comparability within the Cement Sustainability Initiative, the CSI companies decided that in addition to the mandatory requirement for using the criteria for those businesses directly linked with cement manufacturing (as defined below), the safety indicators and reporting criteria provided in this document shall be also be used for the safety reporting of all business sectors, even when there is no direct link to cement production.

The following activities are included in the scope of the cement manufacturing process and related business sectors (see figure on following page) when they are under the direct or indirect management of the company (this is understood to mean where there is safety management control):

- > Quarry operations for cement production, if they are under the safety management control of the cement company or plant.
- > All operations in cement manufacturing plant from crushing to dispatch/shipment, including any production-related off-site activities; for example the preparation, treatment, handling and delivery of conventional and alternative fuels and other raw materials by directly employed or contractors/subcontractors, but not suppliers. This also includes cement plant construction and reconstruction projects.
- > Cement milling and/or terminal/distribution silo facilities (i.e. receiving clinker and/or producing or distributing cement).
- > All office-based personnel directly related with these activities, including administrative and sales employees, managers and directors,

even when they are on business outside the plants. Also included is any headquarters office staff directly associated with the cement manufacturing activity.

Cement and clinker delivery logistics to terminal/distribution silo facilities and to customers are included whether by road, rail or sea, if carried out by directly employed personnel or contractors/subcontractors. Third party fatalities resulting from such activity are included only where there is company or employee (direct employed or contractors/subcontractors) culpability.

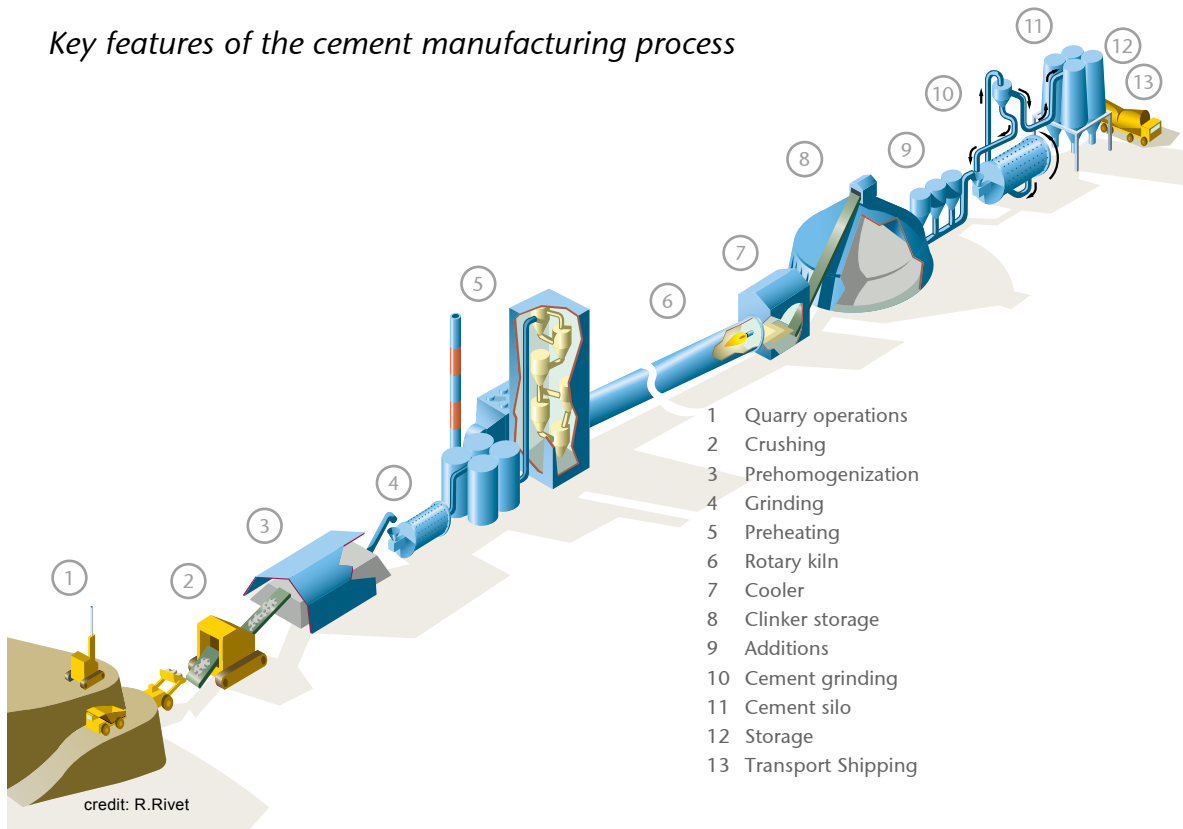
Cement and clinker delivery logistics outside the CSI company's premises are excluded from this definition when the customer collects these products. Aggregates and ready-mixed concrete production and any other activities beyond the cement manufacturing process are excluded from the reported data for cement activities. (Separate external safety reporting for these activities is encouraged.)

When a CSI member acquires another company, its safety data should be included from the date of acquisition, or as soon as practicable.

The reporting protocol defined in this document does not include occupational disease, defined as a condition produced in the work environment over a period longer than one workday or shift. Usually such a disease is due to repetitive factors over a period of time. It may result from systemic infection, repeated stress or strain, chronic exposure to toxins, poisons or other ongoing aspects of the work environment.

Reporting of occupational diseases should be kept separate from reporting safety LTIs. Occupational diseases, for example silicosis, relate to longer term workplace exposures and do not relate to specific workplace accidents.

Key features of the cement manufacturing process



Safety indicators to report by CSI member companies

Fatalities

Number of fatalities and fatality rate, directly employed
 Number of fatalities, contractors & subcontractors and third parties

Lost time injury

Number of lost time injuries (LTI), lost days due to LTIs, LTI frequency and severity rate, directly employed
 Number of LTIs, contractors & subcontractors

1. Number of fatalities and fatality rate for directly employed

Number of fatalities for directly employed

Fatalities (directly employed) =
Number of fatalities of directly employed resulting from work-related incidents in a year

Fatality rate: reported as a rate per 10,000 direct employees, calculated as follows:

Fatality rate (directly employed) =
(Number of fatalities in a year / number of directly employed) x 10,000

In order to compare fatality rates with those of other sectors which are calculated on a man-hour basis, a calculation based on 20 million worked hours can be used.

Number of fatalities in a year x 20,000,000 / total actual worked hours in a year

2. Number of fatalities for contractors/ subcontractors

Number of fatalities (contractors/subcontractors) =
Number of fatalities of contractors/subcontractors resulting from work-related incidents in a year

3. Number of fatalities for third parties

These are recorded only if they arise from an incident in cement manufacturing, related businesses and logistics. Off-site traffic accident fatalities are reported separately and only if there is company or employee (direct employed or contractors/subcontractors) culpability.

Number of fatalities (third party) =
Number of deaths of third parties resulting from incidents related to cement activities (as defined in the scope of cement manufacturing process)

4. Lost time injury (LTI) frequency rate (LTI FR) for directly employed

General: The frequency rate is the number of lost time injuries per 1,000,000 (1 million) hours worked.

$$\text{Frequency rate} = \frac{\text{Number of lost time injuries} \times 1,000,000 \text{ hrs}}{\text{(Total actual hours worked in a year)}}$$

Note 1: Fatalities and lost time injuries (LTIs) are counted separately. A fatality is not double counted as an LTI.

Note 2: If a company has already adopted a different definition for frequency rates, it may of course continue to use these internally; however, it will report to the CSI (and optionally in public) using the above definition.

5. LTI severity rate (LTI SR) for directly employed

General: The severity rate is the number of lost days caused by LTI per 1,000,000 hours worked.

$$\text{Severity rate (SR)} = \frac{\text{(Number of lost days)} \times \text{(1,000,000 hours)}}{\text{(Total number of hours worked in a year)}}$$

It is necessary to specify whether the lost days are counted on the basis of calendar days lost or working days lost.

Statistical calculation has demonstrated that the lost calendar day basis is equal to 1.5 times the lost working day basis, with +/- 3% accuracy.

Therefore it is agreed that:
LTI severity rate (basis of worked days lost) x 1.5 =
LTI severity rate (basis of calendar days lost).

To calculate the severity rate precisely, a year-end adjustment should include either:

- a Estimated number of lost days carrying forward into the following year; or

- b Actual number of lost days carried forward from LTIs in the previous year.

There is general agreement that the counting of lost days ceases with a return of the injured person to restricted (or light) work or normal work.

Under either option (a) or (b), it may be deduced that the maximum number of lost days counted for any single LTI cannot exceed a maximum equivalent of two years' absence.

The following rules also apply in the computation of lost days:

- > If, after the injured person has returned to work, further lost days occur later due to a relapse (or for example due to corrective surgery), then those additional lost days must be counted in the severity rate calculation for the original LTI.
- > Lost days have to be counted as long as the person is on the payroll of the company, even if the employee receives money from another body, for example from health insurance funds.
- > Only actual lost days should be counted. In some jurisdictions, there are local reporting conventions that arbitrarily add further lost days in national reporting as punishment for more severe LTIs, these conventions should not be adopted when reporting under CSI rules.
- > If in the case of an incapacitating injury where the injured person chooses not to return to work, then the counting of lost days should terminate when that agreement is reached.

6. Number of LTIs for contractors/subcontractors

Recorded only when linked to the activities of cement manufacturing (as defined previously).

$$\text{LTIs (contractors/subcontractors)} = \text{Number of LTIs in a year of contractors/subcontractors}$$

Note 1: If the customer arranges own transport or sends a contractor to collect products, any injury sustained during the transport/pick-up off-site is the responsibility of the customer and is not counted.



Safety training on the procedures for working in confined areas at Jura Cement, Wildegg facility.

Some guidance in determining if an incident is work related

Injuries: on facility premises

Generally, all injuries that result from a work-related event or exposure on the facility's premises are considered work-related. The facility premises consist of the total establishment, including the primary work facility, administration buildings, hallways, washrooms, etc.

Exceptions to this rule are:

- > If an employee exhibits signs or symptoms of a non-work-related event or exposure while on the work-site (natural causes); this situation should, of course, be addressed medically.
- > If an employee is injured due to non-work-related activities on the premises (for example using sports facilities outside working hours).
- > Facilities that are leased or rented out to other companies and where the company has no management control over safety.

Some work-related incident clarification and reference criteria:

- > If an employee is injured on facility premises while engaged in horseplay (rough and tumble, fooling around, play-fun), the injury is recordable because horseplay should be strongly discouraged.
- > If an employee is injured on the facility premises while under the influence of alcohol or drugs, the injury is also recordable and may lead to disciplinary procedures depending on company policies in place and legal regulations.

Injuries: off facility premises

Some reference criteria for off-facility incidents:

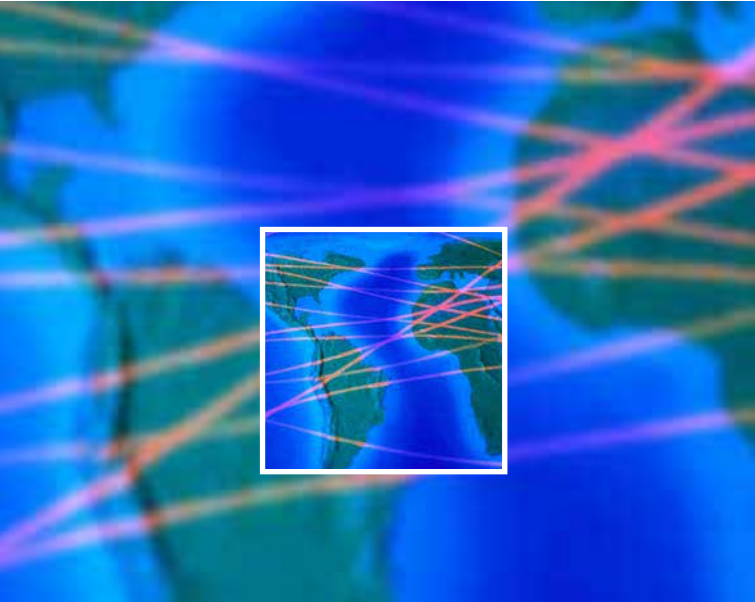
- > If an employee has reported to work and is injured while performing work-related activities off the facility premises, such as purchasing a company-paid lunch, obtaining supplies or carrying out general company errands, the injury is considered work-related.
- > If an employee leaves work with permission and is injured off-site while, for example, at lunch, and the luncheon is not work related, the injury is not considered work related.

Restricted (or light) work after an injury

Provided it is legally acceptable in the country concerned and medically approved, it is beneficial for both the injured employee and the company to have the employee initially return to restricted/light work duties while the natural healing and recovery process is completed.

When an injured employee returns to restricted/light work, the LTI is over. If the return is the day/shift immediately after an injury, then there is no LTI as no days are lost.

It should be noted, however, that national incident and/or accident reporting requirements might be different from the CSI definitions described above. In such cases, the national reporting requirements should always be met. Data should of course be reported to the CSI (and in public reports by the company) according to CSI definitions.



Consolidated Cement Sustainability Initiative reporting and communication

Gathering of safety data from CSI member companies and creation of the report

Every CSI member will elaborate its own annual safety indicator report according to the definitions and formulas in this document and will share its report for the previous calendar year among all CSI members during the month of February every year.

The person designated to make the consolidated report will combine all the individual reports and will create a consolidated safety indicator report. This will be produced during March/April every year.

Criteria regarding the use and publication of CSI safety indicators

The consolidated CSI report will not exhibit figures comparing individual, named cement companies.

The figures must exhibit all the cement companies reporting as a group in order to make comparisons between the CSI group and other sectors, or show trends and progress within the CSI group between years.

Companies not involved in the CSI are encouraged to collect and report their data.

Independent verification of data

CSI members have agreed to independent verification of their safety data going forward to ensure that the process is transparent. Each member oversees its own independent verification process, with a credible third party assurance company.

Joint ventures and associate companies

The reporting responsibilities relating to the degree of management control are as follows:

- > The CSI member with a controlling position in a company (greater than 50% shareholding) is required to report for 100% of that company; CSI members with minority positions should not double-report that company.
- > In a 50/50 joint venture where both parent companies are members of the CSI, only the company with H&S management responsibility should report the safety figures for 100% of that company in order to avoid double reporting.
- > In a 50/50 joint venture where only one parent company is a CSI member but does not have safety management responsibility, that CSI member is not obliged to report safety data for that company.
- > If the controlling shareholder is not a CSI member, then the CSI member(s) in minority position(s) is(are) not obliged to report safety data for that company.
- > In cases where management/technical agreements effectively give safety management control to a minority shareholder, then the reporting provisions of a controlling position as outlined above apply.

In the compilation and reporting of safety data, there should be no double-reporting of fatalities/LTIs by CSI members. If member “X” has a fatality/LTI at a member “Y” location, then only member “X” reports that data. If “X” is not a member and “Y” is, then “Y” reports it as a third party fatality.

Appendix 1 - Guidelines for verification of CSI safety data

In order to increase transparency, reliability and accuracy of reporting of key performance indicators (KPIs) on safety to stakeholders, the CSI proposes that safety KPIs be independently verified in accordance with the following guidelines

Area	Moderate or limited (or negative*) assurance or verification	Reasonable assurance (or positive**) or verification
Verifier reputation	The verifier should be a nationally recognized and reputable verification authority.	The verifier should be internationally recognized and accredited to appropriate standards.
Scope of verified data	The verified data should include all the agreed CSI cement safety KPIs (including fatality rates and LTI frequency and severity rates).	The scope of verification may optionally extend to all activities and also include safety policy, its implementation, safety improvement programs and targets.
Scope of central verification	The verification should cover the process of collation of the CSI member safety KPIs from all managed cement activity sites within that company and calculation of the overall CSI member cement safety KPIs.	The scope may also cover all other activities (aggregates, ready mix concrete, etc.), as well as the data for contractors, joint ventures, etc.
Scope of site verification	The verification should also include checking of the accuracy and quality of source data from representative sites through site visits by the verifier and associated examination of site accident records. The sites to be visited should be decided by the independent verifier.	The number of sites may be increased to give a more statistically reliable verification statement.
Verification principles	In the central and site assessments, the verifier should adhere to the established verification principles of scope, materiality, completeness, accuracy, neutrality and comparability.	The verification principles may be those laid out in the AA1000 Assurance Standard, ISAE 3000, GRI G3, or a similar standard.
Verification statement	The verifier should provide to the CSI member a verification statement summarizing the conclusions, including any recommendations for improvement.	This statement should be included in the CSI member's public report (such as in CSR reports).
Commencement	This verification process should ideally have been initiated (if not already done) by all CSI Members in 2008, verifying their 2007 safety data, and then be carried out least every 3 years, ideally annually.	Verification, ideally in each year, should be completed as early as practicable, latest by September 1.

Note 1: From a practical perspective, safety KPI verification may be more efficiently carried out by the same verifier and at the same locations as for CO₂ verification.

Note 2: Inspections by authorities like the US Mine Safety and Health Administration, Occupational Safety and Health Administration, or reviews by the Global Reporting Initiative, would generally not provide adequate assurance on the quality of the safety data reporting.

* Negative statement means that at least the verifier has found no significant errors or false claims in safety data.

** Positive statement means that, on the basis of more detailed assessment, the verifier can provide good assurance as to the correctness of the data.

Appendix 2 - Examples of accidents and corresponding recordability

Example 1: Off-site traffic accident causing the death of a bicycle rider

Not recordable

Description: A ready-mixed concrete company used a spot hauler to deliver concrete during peak time. After his last delivery he came back to the company to hand over the delivery paper work before leaving for his own home yard. On his way back to home, the spot hauler stopped at a traffic light-controlled crossing. When the traffic light changed to green he made a right turn, not realizing a cyclist was beside him. He ran over the cyclist who died on the spot.

Recordable? This fatality is not recordable as the contract with the hauler was finished at the latest after he forwarded the paperwork to the CSI company and left the CSI company site.

If no paperwork has to be brought back and the hauler directly left for another task for another company or went home, the contract ends with the delivery of the product. All incidents afterwards are not recordable.

Example 2: Lost time injury during a sport event sponsored by the company

Not recordable

Description: A worker took part in a football match in his leisure time as member of a company team. The team was sponsored by company shirts with the name and logo of the company. During the match he stepped wrongly and ruptured a tendon in his knee, causing lost days.

The company neither made the participation mandatory nor was involved in the organization of the event.

Recordable? If the participation in such events (in this case a football match) is made mandatory by the company, for example as part of team building activities, it is recordable.

If the participation is voluntary, like in the case described above, any injury is not recordable and must not be reported. This is also valid if the company provides the location like a gym hall or the sports ground as long as the injury is not caused by structural failures of the provided location and the use is during leisure time and voluntary.

Example 3: Head on collision incident

Not recordable

Description: A CSI member company truck was travelling along a main road when a car driven by a member of the public suddenly crossed to the wrong side of the road and collided with the cement truck. The car driver and the cement truck driver died as a result of their injuries.

Recordable? Eye witnesses confirmed the truck driver had no time to avoid the incident and that he did not contribute to the event in any way. Emergency services confirmed the truck driver was wearing his seatbelt. Therefore this case is not recordable and neither the third party nor the own employee fatality should be recorded.

Example 4: Crushed by truck wheels incident

Not recordable

Description: A CSI member company truck was travelling along a main road through slow traffic when, without the driver knowing, a young member of the public quickly approached the vehicle from the side of the road and climbed onto the vehicle. As the driver continued his journey, the member of the public slipped and fell from the truck. As he fell he landed between the wheels of the moving truck.

Recordable? Eye witnesses confirmed the truck driver could not have been aware of the actions of the member of the public when he approached the truck and climbed aboard. The member of the public was trying to catch a ride or have fun, carrying out a dangerous act. Therefore this case is not recordable.

Example 5: **Car accident caused by third-party driver** Recordable

Description: The victim, an employee of a CSI member company, was seated in the passenger seat of the company car. He decided to put the seat back to an angle of approximately 45 degrees to have a rest. He also used his hands to push away the lap part of the safety belt to be more comfortable, thereby loosening the belt.

A speeding third party car coming from the left side suddenly struck the CSI member company car on the left back door. The car responsible for the accident ran away.

The company’s car rolled over and over and then slid for few meters, resting on its roof, i.e. upside down. The driver who was wearing his seat belt came out without any apparent injury; however, the passenger was thrown out of the vehicle and killed.

Recordable? The death of the passenger has to be recorded because he was not wearing his seat belt properly according to driving guideline requirements. Proper use of the seatbelt would have prevented this fatality.

Example 6: **Contracted truck hit a pedestrian on a public road** Recordable

Description: A contracted truck was on its way to load cement and was empty at the time of the accident. A pedestrian, attempting to cross a four (4) lane highway in an 80 km/hour speed limit stretch was hit by the truck in an area where there was no pedestrian crossing. The victim died on the spot. The driver was unhurt.

Recordable? The accident investigation revealed: the driver was not trained in road safety requirements; the truck was not approved by the member company; directions pertaining to route assessment and journey planning were ignored by transporter’s team. Furthermore, the principles of defensive driving were not applied by the driver who did not anticipate that the pedestrian could cross the road. Although the behavior of the pedestrian can be qualified as very risky, the main culpability lies with the driver as he could have avoided the accident by applying proper defensive driving principles. This fatality is therefore classified as recordable.

Example 7: **Contracted truck hit an oncoming vehicle on a public road** Recordable

Description: At approximately 4:00 am, a contracted truck left the plant to deliver cement at a ready-mixed concrete mobile site. The accident investigation revealed that the driver of the truck tried to avoid a car which had stopped on the road, intending to turn left. To avoid the stationary car, the truck veered into the opposite lane and collided with an oncoming vehicle. The driver of the oncoming vehicle died on the spot.

Recordable? This has to be recorded as a third party fatality as the driver made a risky maneuver in trying to avoid the stopped vehicle. Applying defensive driving rules and adequate speed would have avoided the collision.

Example 8: **Contracted truck hit a pedestrian on a public road** Not recordable

Description: A contracted truck was on its way back from a delivery within the city. It was afternoon rush hour, with heavy traffic. The truck had just started off a set of traffic lights at an intersection on a six-lane road (three lanes in each direction) in the right-hand lane. There is no pedestrian crossing at this intersection. A pedestrian, coming out of an adjoining park, stepped off the curb, probably intending to cross the street. As traffic was already moving, he slipped and fell under the back wheels of the truck on the right-hand side. The victim later died in hospital.

Recordable? Tachograph data confirmed that the truck was moving at low speed (under 10 km/hour) at the time of the accident. Driver qualification, training, working times and alcohol-free status were all checked and found to be as required. Witnesses stated that the lights had already turned green when the victim started crossing, approaching the truck on the blind side. The police investigation concluded the driver was not at fault and that the victim had been drinking. This fatality is therefore classified as not recordable.

About the Cement Sustainability Initiative (CSI)

The Cement Sustainability Initiative (CSI) is a global effort by 24 leading cement producers with operations in more than 100 countries. Collectively these companies account for around 30% of the world's cement production and range in size from very large multinationals to smaller local producers. All CSI members have integrated sustainable development into their business strategies and operations as they seek strong financial performance with an equally strong commitment to social and environmental responsibility. The CSI is an initiative of the World Business Council for Sustainable Development (WBCSD).

www.wbcscement.org

www.wbcscement.org/safety

About the World Business Council for Sustainable Development (WBCSD)

The World Business Council for Sustainable Development is a CEO-led organization of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment. Together with its members, the Council applies its respected thought leadership and effective advocacy to generate constructive solutions and take shared action. Leveraging its strong relationships with stakeholders as the leading advocate for business, the Council helps drive debate and policy change in favor of sustainable development solutions.

The WBCSD provides a forum for its 200 member companies which represent all business sectors, all continents and a combined revenue of more than \$7 trillion to share best practices on sustainable development issues and to develop innovative tools that change the status quo. The Council also benefits from a network of 60 national and regional business councils and partner organizations, a majority of which are based in developing countries.

www.wbcscd.org

Disclaimer

This report is released in the name of the WBCSD. Like other WBCSD reports, it is the result of a collaborative effort by members of the secretariat and senior executives from several member companies. A wide range of members reviewed drafts, thereby ensuring that the document broadly represents the majority view of the WBCSD membership. It does not mean, however, that every member company agrees with every word.

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