

## Reporting methodology

The data in the Group's 2009 sustainability report is generated by systems that have been used within the Group for several years. They are subject to ongoing improvements.

### Reporting standards

In 2009, no particular change has been applied to the Common environmental reporting standards (Group Environmental Reporting V3.5.3 and Quarry Rehabilitation Standard v1.13) drawn up in 2004, and reviewed in depth in 2007 and 2008 to ensure their alignment with the Sustainability Ambitions 2012. The definitions of active sites and active quarries have been clarified. The quarry rehabilitation standard was modified last year to first take into account the local compliance with quarry rehabilitation regulations if any; where the rehabilitation is not formally regulated, a valid rehabilitation plan must comply with the four unchanged Group criteria. In the Cement Business, the environmental indicators are defined in the Business Reference System (BRS®). Each site shares the BRS® and operating data is collected through the technical reporting system. In the Aggregates & Concrete Business, environmental data is collected at the business unit level through a dedicated Excel® file based on the Group Environment Reporting V3.5.3 and the Quarry Rehabilitation Standard v1.13 definitions. The scope of data reported and the definition of the indicators are tailored to the specificities of each activity (aggregates, readymix, asphalt). Gypsum environmental data is collected through the Gold management system. The Group has developed social reporting standards over the last five years. Data related to the percentage of women in senior management is collected thanks to a yearly questionnaire sent to BU HR Directors. The Group has started to roll out a new dedicated reporting tool for Sustainable Development Data in 2008. In 2007, we carried out an in-depth revision of the standards to take into account the requirements of the new Global Reporting Initiative G3 guidelines. Our health and safety management systems have been developed taking into account the guidelines on health and safety management systems in the workplace.

### Reporting perimeter

Environmental reporting covers all the business units and their industrial production sites under the Group's business control throughout the world. All data is reported 100%, whenever the company is consolidated. Using the following protocols: Reported CO<sub>2</sub> emissions relate to the direct emissions from the Cement Business. In accordance with the CSI guidelines, to assess the CO<sub>2</sub> emissions reduction between the 1990 baseline and the reporting year, the 1990 perimeter is reconstructed each year. Newly acquired plants that are reporting their CO<sub>2</sub> emissions for the first time as part of the Group and existed in 1990 are included in the baseline, their CO<sub>2</sub> emissions in 1990 are collected or estimated and added to the baseline. Plants that are sold are removed from the baseline. Shutdown of kiln lines does not lead to any change in the baseline. For dust, SO<sub>2</sub>, and NO<sub>x</sub> emissions, measurements are not always available or reliable. In this case, we use standard emission concentrations based on the site's kiln process. When reliable measurements are available, estimates are replaced with measured values. In 2009, estimates represent 4% of CK production for dust emissions, 9% of CK production for SO<sub>2</sub> emissions and 14.6% of CK production for NO<sub>x</sub> emissions. With regard to the targets for reduction of dust, SO<sub>2</sub> and NO<sub>x</sub> emissions, the 2005 baseline reference is recalculated every year. The perimeter of the 2005 baseline is updated based on the reporting year's perimeter and following the same approach as for CO<sub>2</sub> emissions baseline: newly consolidated sites which existed in 2005 are included in the 2005 baseline, Greenfield plants erected after 2005 are consolidated from the inauguration date, and plants or lines sold to third parties are excluded from the 2005 baseline. The data entered in the 2005 baseline corresponds to emissions measurements, if available and reliable, or is estimated based on the same standards as for the reporting year. For SO<sub>2</sub>, as it is, by large, linked to the raw material quarry, when analyses subsequent to 2005 prove that the emission level is significantly different than the standard emission factor, the 2005 emissions are adjusted to reflect the analyses. Lafarge continues to acquire complete ownership or an equity interest in existing sites from other operators. These new sites are never fully in line with Lafarge Standards. As a rule, we allow three years starting from the acquisition date to meet our criteria. Indicators are reported whenever criteria are implemented and in all cases the 4th year. During this period, we implement the appropriate management and data collection systems to ensure coherence with the Group reporting standards. Notably, sites acquired in the last three years are not accounted in the environmental

audits & quarry rehabilitation indicator and represent 4.6% of the sites to be audited and 5.5% of the total quarries. This year, Orascom plants emissions for CO<sub>2</sub> emissions, NO<sub>x</sub>, SO<sub>2</sub> and stack dust have already been consolidated, with the exception of Orascom activities in DPR Korea and Spain. The Group number of fatalities and fatality rate include Orascom fatalities. Nevertheless, Orascom had not been included in the LTIFR safety reporting perimeter in 2009 and is scheduled to be integrated at the beginning of 2010. Neither have Orascom activities been included in the data reported this year on competition policy. In the Aggregates & Concrete Business, environmental reporting covers its three activities readymix, asphalt and aggregates. New business units are gradually included in the perimeter and once included, report on all parameters. In 2009, reported data corresponded to some 93% of the Business' turnover. In the Gypsum Business, a site is integrated in the reporting perimeter the year following its start up or its acquisition. Our social reporting is based on voluntary declarations by the human resources departments of the Group's business units. For the 2009 report, 109 business units participated, covering 92.5% of the total Group workforce. Regarding stakeholder relationship trainings, targeted population refers to "plant managers", for cement and gypsum businesses and to "area / regional managers" for Aggregates & Concrete business.

### **Consolidation and control**

Environmental data is consolidated and controlled within each business line and is then consolidated at Group level. The Cement Business's CO<sub>2</sub> indicators have been independently verified since 2001. In CO<sub>2</sub> emissions reporting, biomass amounts to zero everywhere, in agreement with WWF. Social data is consolidated and controlled by the Group's Social Policies Department. Ernst & Young provides independent assurance over the CO<sub>2</sub>, dust, SO<sub>2</sub> and NO<sub>x</sub>, environmental audit, the quarry rehabilitation indicator, female senior managers, safety, competition policy and training in the local stakeholder relationship methodology.

### **Methodological limits**

Environmental and social indicators can have methodological limits because of:

- the limited availability of the data needed for calculations;
- the qualitative nature of some of the data, which can be open to interpretation;
- the practical methods for collecting and recording such data.

This is why for some indicators, we have specified the definitions and methodologies used and, where applicable, the associated limits and margins of uncertainty.

### **Nature and scope of the competition checks**

The indicator reflecting the percentage of achievement in the process of testing the implementation of our competition policy worldwide, has been built based on the number of countries where Lafarge has operations that have been subject to verification so far and not necessarily on the specific number of business units existing in those countries. Given the national nature of competition regulations and risks, the Group Competition Team has decided to go beyond the internal divisional structuring of our activities, by analysing the situation of our business units on a country-by-country basis. The foregoing means that every time that a country is included in the action plan for a competition verification, all activities in that country are tested, even if one or more of them are not significant business units. This is consistent with the fact that the Competition Network within Lafarge Group is composed by competition correspondents (normally the General Counsel of the largest business unit in the country), who are in charge, from a competition law perspective, of all activities existing in their respective country, on a shared services basis.

When we include a given country in the statistics (and, therefore, all the business units operating in such country), it implies that the implementation of our competition policy has been somehow tested in that country. The "competition test" that is conducted in each country is not always the same and its determination mainly depends on the previous assessment of the competition situation in that specific country. Such assessment is done by the Group Competition Team in conjunction with the relevant competition correspondent. In this manner, competition verifications include a wide range of activities, which go from a simple risk assessment questionnaire completed by the competition correspondent in the less risky countries, to a full "mock dawn raid", normally conducted in the more risky countries with the direct involvement of members of the Group Competition Team.

## Notes on methodology

The environmental indicators refer to 100% of the Group's perimeter. Extrapolations were made when the data for an activity did not cover its entire perimeter. In the case of Aggregates & Concrete, environmental performance indicators are not only based on production sites; other industrial sites, such as rail heads, wharves, garages, maintenance shops, warehouses, storage piles, laboratories are monitored on their environmental impact and are therefore added to the reporting perimeter.

For 2009, all social indicators are based on a social survey covering 109 business units representing 92.5% of the total Group workforce.

Environmental audits (page 39) follow the standard environmental audits guideline in the Cement and Gypsum divisions. For Aggregates & Concrete sites, environmental audits are managed at country/business unit level.

SO<sub>2</sub>, NO<sub>x</sub> and dust emissions (page 44) are measured in accordance with the WBCSD-CSI guidelines (see [www.wbcd.org/chapter Sector Project/cement/](http://www.wbcd.org/chapter%20Sector%20Project/cement/) guidelines for emissions monitoring and reporting in the cement industry, March 2005). Dust emissions are measured at main stack, and calculated based on measured concentrations; when measures are not available, values per default are used. Values per default are fixed according to the kiln process and unchanged since 2005. The same methodology has been applied for SO<sub>2</sub> and NO<sub>x</sub>.

A quarry rehabilitation plan (page 45) is declared to be accepted when it fulfils either the permits obligations for rehabilitation or, when there are no local requirements, the internal standard criteria which include :

- 1- A representation of the final stage of the quarry site;
- 2- A series of detailed descriptions covering each area of the restored site to reflect their proposed specific after use;
- 3- A list of works to be completed in order to achieve the rehabilitation status;
- 4- A broad schedule showing the sequencing of the rehabilitation works.

A Lafarge employee (pages 41, 46, 47) is any individual that is directly employed (i.e. temporary or permanent) by Lafarge on a part-time or full-time basis or is managed by Lafarge whether or not the individual receives remuneration directly from the Lafarge payroll system.

Lost Time Injury (LTI) (page 41) is a work-related injury causing absence from one or more scheduled workdays (or scheduled shifts), counting from the day after the injury occurs to the day before the individual returns to normal or modified work.

Lost Time Injury Frequency Rate (LTIFR) (page 41): Number of accidents, including fatal accidents leading to loss of time by million of hours worked.

Lost Time Injury Severity Rate (LTISR): Number of calendar days lost as a result of accidents by thousand of hours worked.

Fatality rate (page 41): Number of fatal accidents per 10,000 employees.

Senior executives and managers (page 46) are Lafarge Hay graded 18 and above: In order to achieve a uniform classification of the various types of management positions, Lafarge decided to use a single approach for all the countries in which it is present (Hay method). Job evaluation committees meet regularly, with input from local Hay representatives to enhance consistency, in order to minimize the interpretation of job content (degree of delegation, complexity, etc).

The indicator on local stakeholder relationship management training relies on training on the Group methodology of plant managers (in Cement and Gypsum) and area/regional managers in Aggregates and

Concrete. In the Cement business, the indicator takes into account the Cement Masters training (standard training for new plant manager dealing in part with stakeholder relationship) and Stakeholder Workshops (specific trainings on stakeholders). For Aggregates & Concrete and Gypsum businesses, all trainings dealing with the group stakeholder policy are taken into account,