

Fact Sheet - Emission Monitoring and Reporting (EMR)

Introduction

Regulatory requirements for measuring atmospheric emissions can vary widely: different parameters are measured, using different measuring principles, expressed in different units. In some regions, emissions must be measured continuously, while in others measurement of emissions is required only once or several times per year, or not at all.

For a cement producer such as Holcim, this global variation in measurement requirements makes it difficult for the company to aggregate and compare performance across the Group. It also makes it almost impossible for stakeholders to benchmark Holcim performance against others. Holcim has therefore developed a corporate standard for emission monitoring and reporting (EMR) based on a thorough study of existing methodologies. The EMR standard prescribes the substances to be measured and the measuring methodology to be applied by all Group companies worldwide.

Why this issue is important

EMR is essential for Holcim to understand its kiln stack emissions in a comparable way throughout the Group. At its most fundamental, the company cannot manage what it cannot measure. Further, in order to improve environmental performance, accurate emissions measurement enables the Group to set global emission reduction targets and then report progress toward implementing such goals.

As part of our strategy to reduce our reliance on fossil fuels and natural raw materials, we are committed to increasing the use of wastes as alternative fuels and raw materials (AFR). However this can only be done if we can assure that these materials have no adverse impact on public health, the environment or product quality.

As part of this process, it is crucial for Holcim to demonstrate that there is no overall impact on emissions due to this practice. This is normally achieved by comparing the plant baseline emissions with those measured during carefully designed and controlled trial burns. The EMR standard thus is of fundamental importance by specifying the correct emission measurement methods for safely investigating and validating the feasibility of a candidate alternative fuel or raw material.

Challenges for Holcim

The cornerstones of the Holcim EMR scheme are the continuous monitoring of specific key substances, periodic third party measurement of additional substances, and careful equipment calibration (at least once a year). Dust, NO_x (nitrogen oxides), SO₂ (sulfur dioxide) and VOCs (volatile organic compounds) are measured continuously - while heavy metals, dioxins/furans, hydrogen chloride, benzene and ammonia are measured at least annually. External service providers assist with the discontinuous measurements and the necessary calibrations of Holcim's own measuring equipment.

A key challenge for Holcim, therefore, is to build stakeholder confidence in the quality and integrity of the emissions data we receive through EMR. We are working on continuously improving this quality through training of plant personnel, quality control at corporate level, and by providing comprehensive technical documentation. Due to the geographic diversity of our operations across the globe, it can be difficult to find qualified external parties to conduct the discontinuous measurements and to calibrate the equipment required for the continuous measurement of emissions in some locations. Holcim encourages the development of local out-sourced expertise in countries where this does not exist, and makes knowledge gained through our work available to local test houses and regulators.

Our commitment

Holcim is committed to applying the EMR standard to all clinker kiln stacks in the Group, and has set specific EMR performance targets with regard to equipment availability, data reliability, and transparency. To encourage continuous improvement, we have set global emission reduction targets for key substances: we will reduce global average specific NO_x, SO₂ and dust emissions by 20% on Group level by 2010, compared to 2004 as the reference year.

Further, as part of our engagement with the Cement Sustainability Initiative (CSI), we have worked with stakeholders and other cement companies to develop an agreed global protocol for measuring and reporting atmospheric emissions. Our EMR methodology provided a useful reference point for this work.

Finally, our performance is monitored via our regular environmental reporting standard "Plant Environmental Profile" (PEP).

Related publicly available information

Holcim publishes Corporate Sustainable Development Reports (CSDRs) each second year, with performance information and data updated annually on our website. Together with additional fact sheets and other SD-related information, this can be found at:

www.holcim.com/sustainable/

More information on the CSI is available at: www.wbcscement.org/