

Mineral Products Association Response to the consultation on Defra Multi Pollutant Database (MPMD) Extension to 2030

The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 465 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production, 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.

Cement Sector Comments

1. A10 Page 1: the table A10.1 is out of date. There are no longer any wet processes operating in the UK. There is one semi-wet process and two semi-dry, the remainder (12 kilns on 10 sites) are dry process.
2. A10 Page 1: MPA does not believe that the cement sector will account for “a significant proportion of total UK emissions of SO₂, NO_x, PM₁₀ and PM_{2.5}” in 2030. The UK cement industry has a very good track record of reducing emissions. *Annex I* shows the emissions of key parameters in recent years on a per tonne of product basis. *Annex II* shows the absolute emissions of the same parameters which also provide consistently reducing profiles. Furthermore, *Annex III* shows that output has fallen considerably in the cement sector and this has been accompanied by some plant closures which have reduced the clinker¹ capacity in the UK, whilst maintaining high level of cement production with the introduction of additional grinding and blending capacity. Importantly, the cement industry was one of the first sectors to have a ‘Sector Plan’ agreed and published by the Environment Agency. Through this voluntary initiative the industry has routinely reduced its emissions.
 - a. Dust emissions are down by 82% since 1998
 - b. Oxides of nitrogen emissions fell by 60% since 1998
 - c. Sulphur dioxide emissions reduced by 87% since 1998

In 2012 the Mineral Products Association agreed a new ‘Sector Plan’ with the Environment Agency. The industry commitment includes emission reduction targets on dust, SO₂ and NO_x out to 2020. There MPA finds it difficult to understand how the Defra consultants have concluded that the cement sector will account for a significant proportion of emissions in 2030 particularly as the report states that BAT AEL compliance will increase abatement uptake by 2016.

¹ Clinker is produced by burning the raw materials at temperatures around 1450°C. Cement is produced by grinding the clinker with other raw materials. Consequently most of the emissions of key parameters result from the energy intensive clinker production rather than cement grinding which only contribute to particulate emissions.

3. A10 section 10.3.1 the second paragraph following the bullet points appears to suggest that inconsistent data have been used i.e. low capital cost data from one source and low operation cost data of SNCR from the BCA (now MPA).
4. What account have the consultants taken of the additional energy and CO₂ penalty of achieving marginal reduction in emissions?
5. The authors incorrectly assume that SCR is BAT in the case of UK cement manufacture. SCR is not BAT and is subject to appropriate catalyst and process development.
6. Table A10.6 - footnote 1 assumes that SNCR is required where not already installed. MPA is not fully convinced of its widespread applicability. However, other emission reduction measures should be treated equally with physical abatement such as SNCR and wet scrubbing. The table should also include 'increased use of waste derived fuels' is an applicable emission reduction measure in the table, with 100% uptake as there are well documented emission reduction benefits of using waste derived alternative fuels instead of the traditional coal and petcoke.

Lime Sector Comments

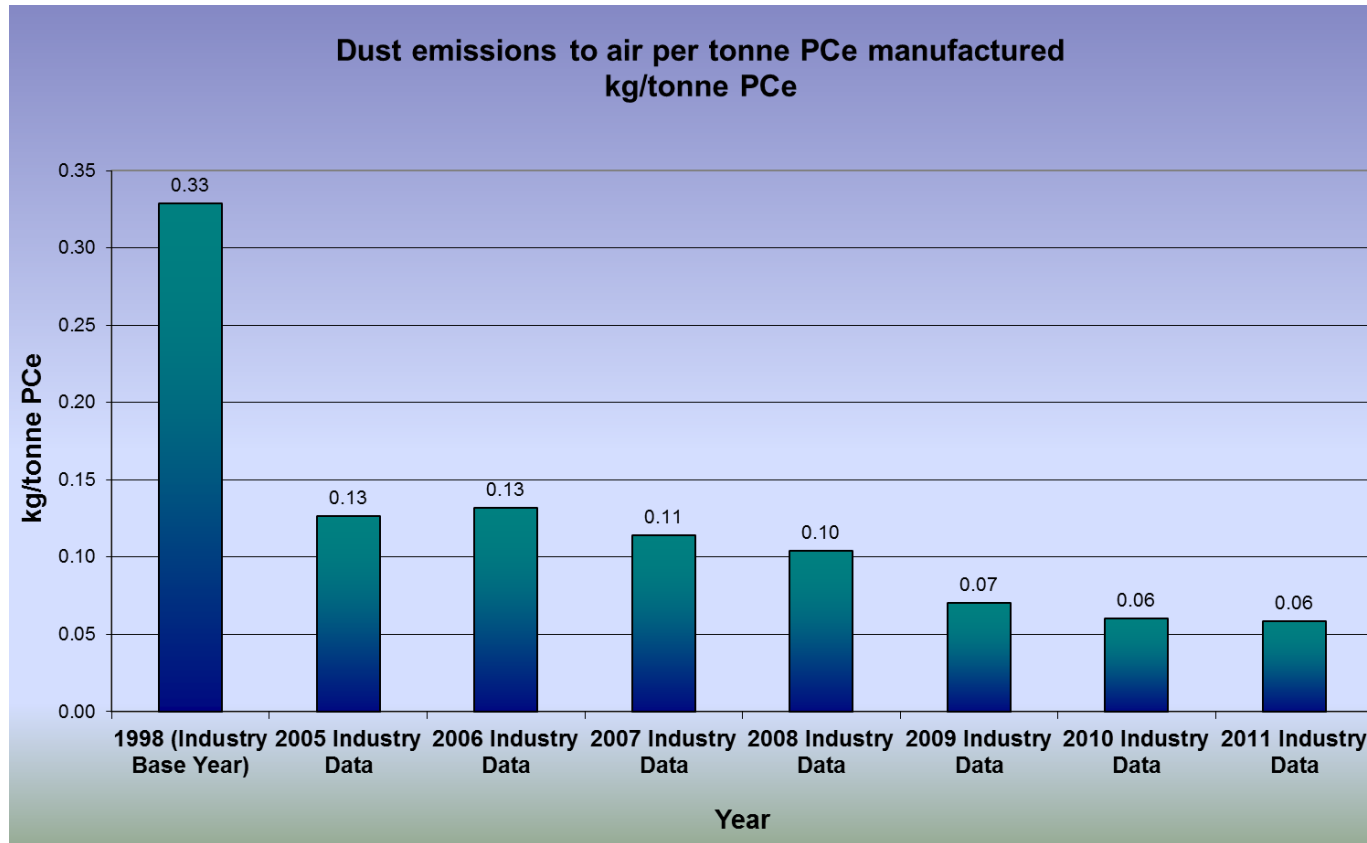
7. Table A.10.2 is incorrect. With the exception of the soda ash producers the British Lime Association (part of MPA) knows of 14 sites with 26 kilns.

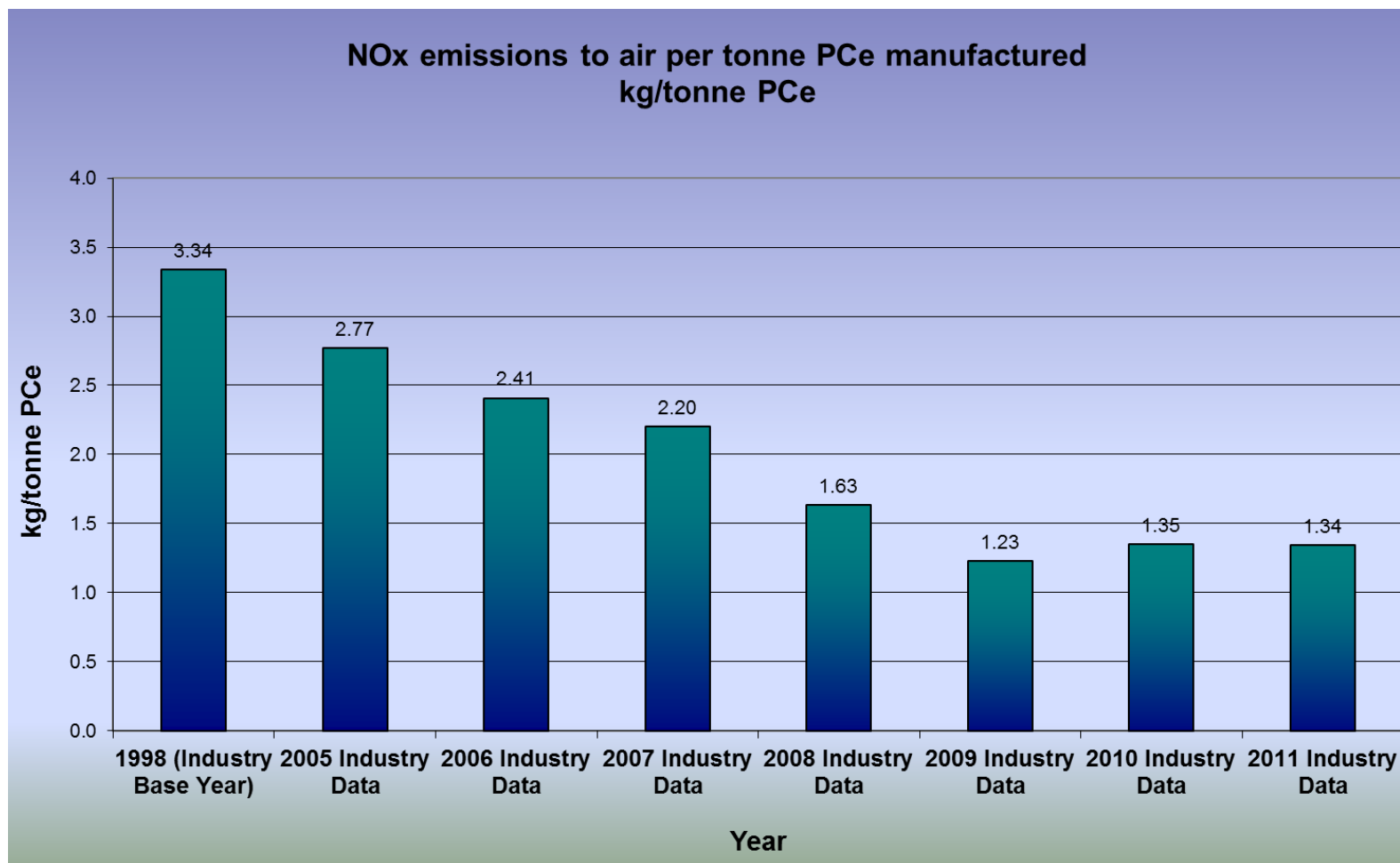
Sector	Type of kiln	No. of plants	No. of kilns
Lime	Rotary	1	1
Lime	PFRK	4	12
Lime	Unknown*	2	5
Lime	OK	1	1
Dolime	Rotary	2	3
Sugar	MFSK (assumed)	4	4

* Captive kilns owned by BLA Associate members

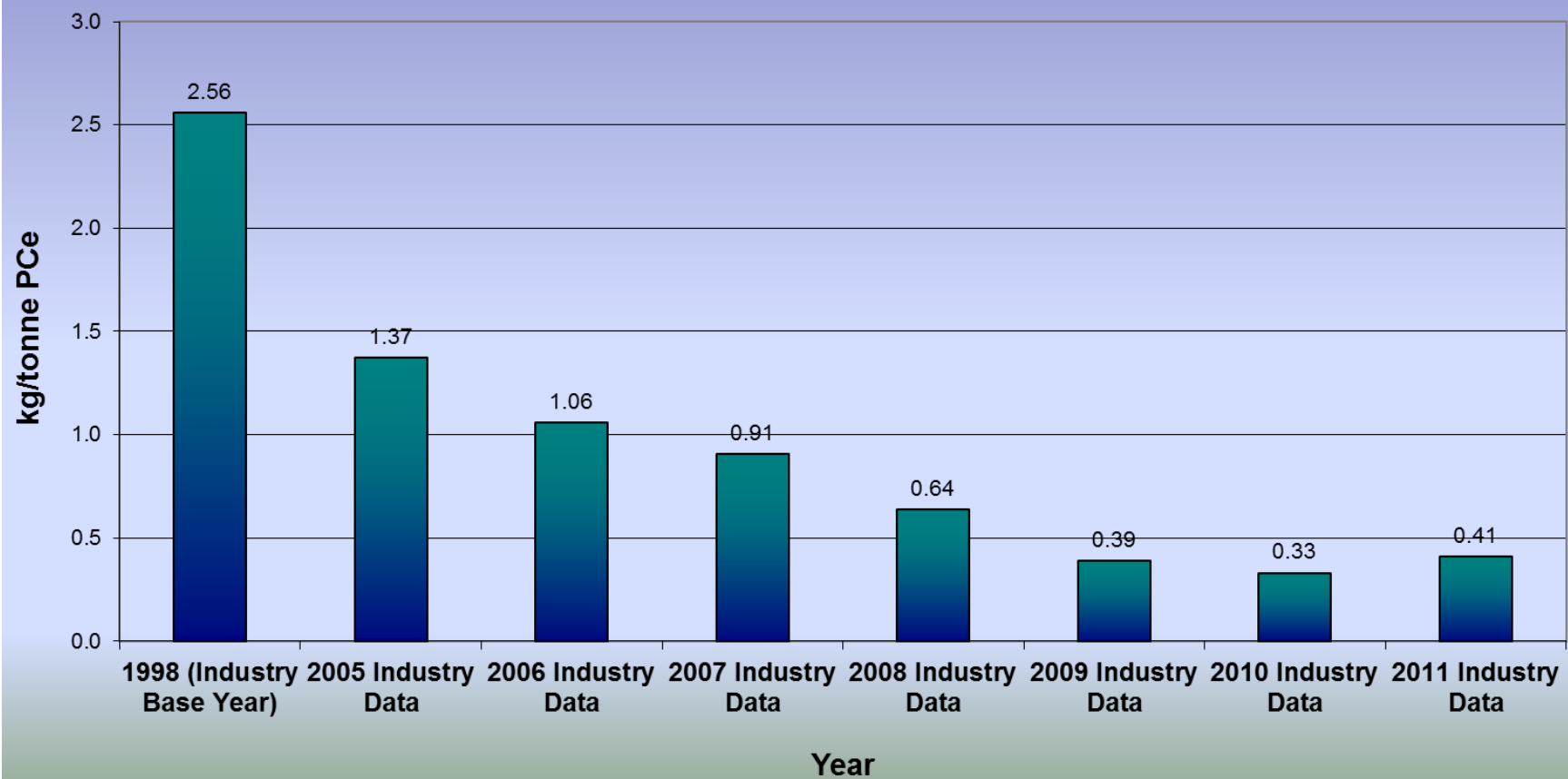
8. The authors state that the Lime sector will be a significant emitter in 2030. The particulate emissions are said to be 0.1% of the UK total. Firstly this is an exaggerated statement for such a low level of emission and secondly it is unlikely to be true given the progress in emissions reduction that the lime sector is making. **Annex IV** shows data from the British Lime Association Sustainability Report and clearly illustrates substantial emission reduction from high calcium lime production. **Annex V** shows that with the exception of NO_x considerable emissions reduction has also been achieved in dolomitic lime production.

Annex I



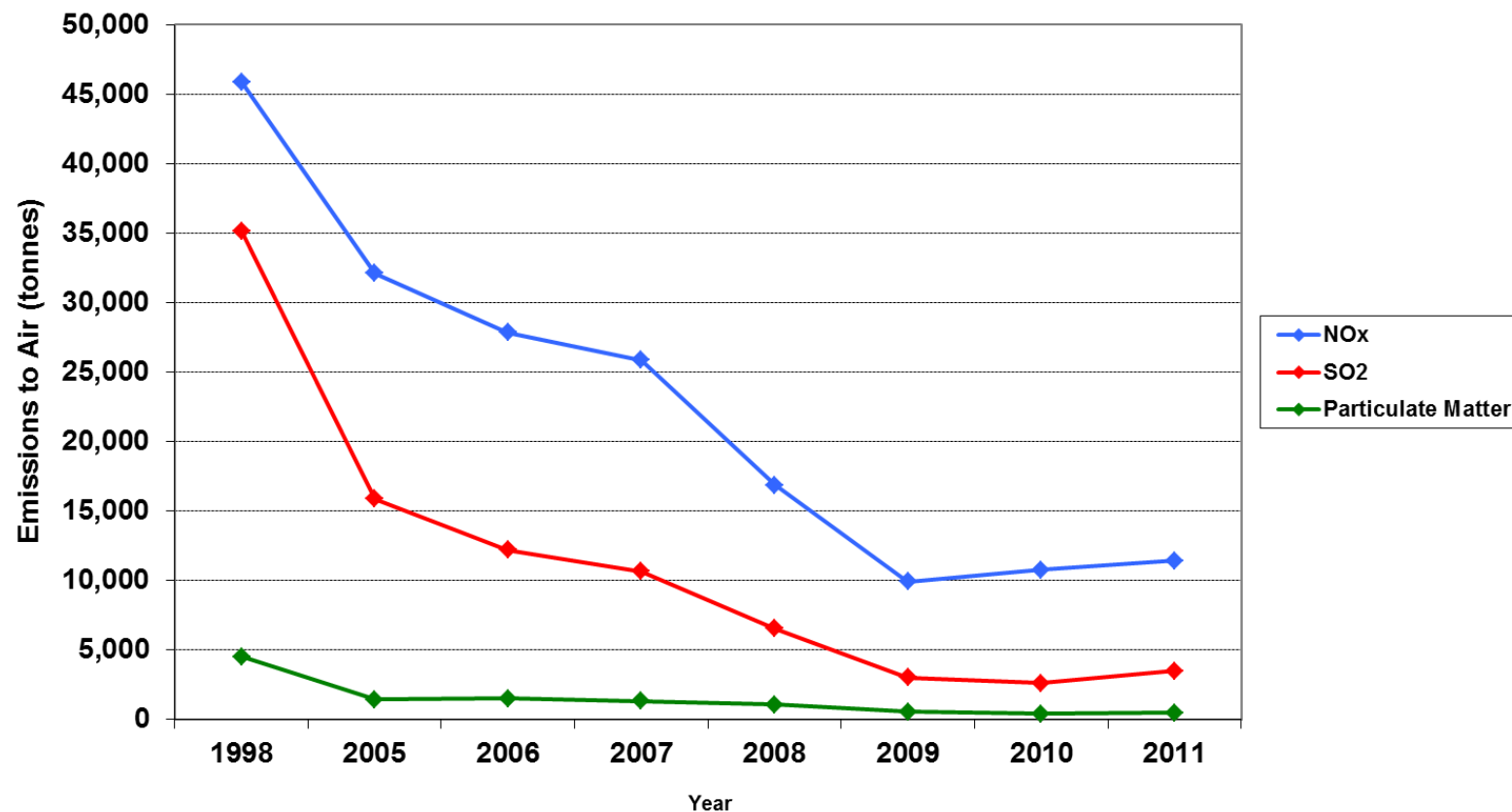


SOx emissions to air per tonne PCE manufactured kg/tonne PCE



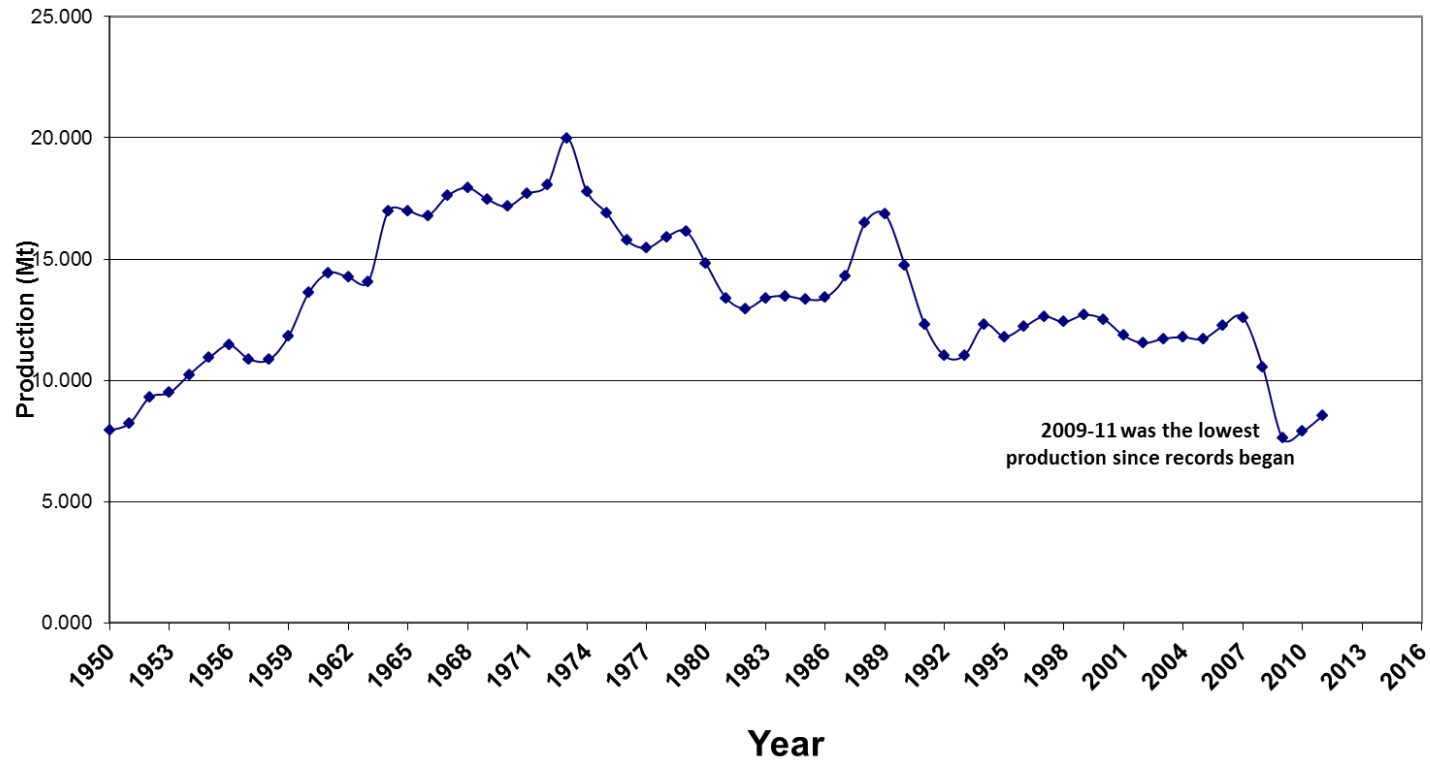
Annex II

MPA Cement Emissions to Air of NOx, SO2 and Particulate Matter 1998-2011



Annex III

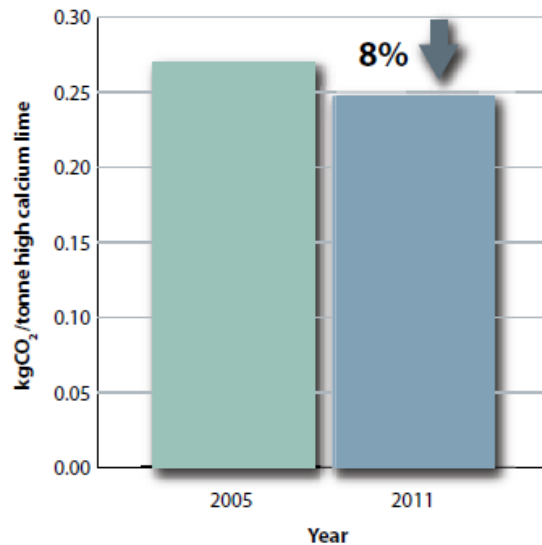
UK Cement Production 1950 to 2011



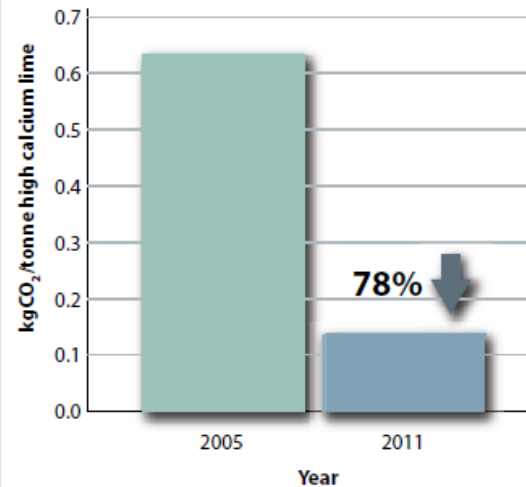
Annex IV

High calcium lime

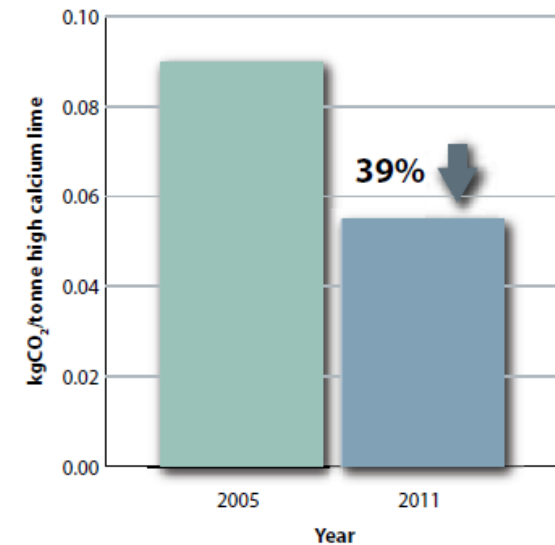
Oxides of Nitrogen (NO_x) Emissions
NO_x emissions to air per tonne high calcium lime manufactured



Sulphur Dioxide (SO₂) Emissions
SO₂ emissions to air per tonne high calcium lime manufactured



Point Source Dust Emissions
Point Source Dust emissions to air per tonne high calcium lime manufactured

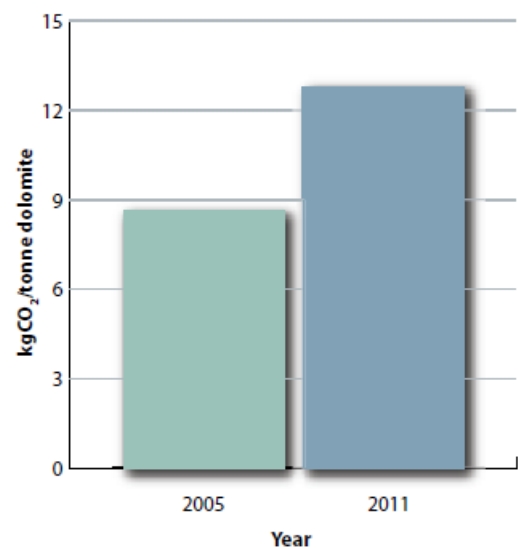


Annex V

Dolomite

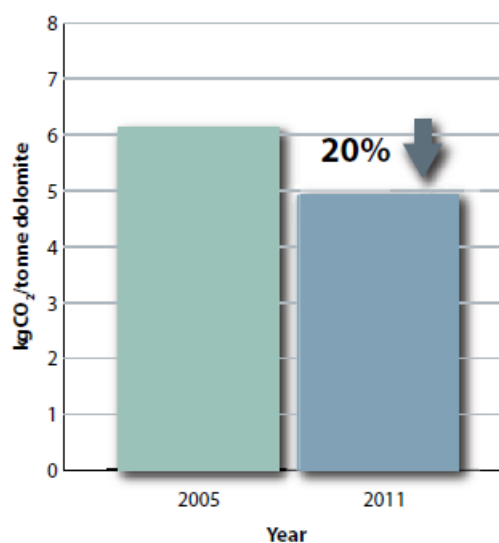
Oxides of Nitrogen (NO_x) Emissions

NO_x emissions to air per tonne dolomite manufactured



Sulphur Dioxide (SO₂) Emissions

SO₂ emissions to air per tonne dolomite manufactured



Point Source Dust Emissions

Point Source Dust emissions to air per tonne dolomite manufactured

