2.A.2 - Lime Production

Short description

Category Code	Method					AD					EF				
2.A.2	T1					AS					CS				
Key Category	**SO_2**	**NO_x**	**NH_3**	**NMVOC**	**CO**	**BC**	**Pb**	**Hg**	**Cd**	**Diox**	**PAH**	**HCB**	**TSP**	**PM_{10}**	**$PM_{2.5}$**
2.A.2	-/-	-/-	-	-/-	-	-	-	-/-	-	-	-	-	-/-	-/-	-/-

T = key source by Trend **L** = key source by Level

Methods	
D	Default
RA	Reference Approach
T1	Tier 1 / Simple Methodology *
T2	Tier 2*
T3	Tier 3 / Detailed Methodology *
C	CORINAIR
CS	Country Specific
M	Model

* as described in the EMEP/CORINAIR Emission Inventory Guidebook - 2007, in the group specific chapters.

AD - Data Source for Activity Data	
NS	National Statistics
RS	Regional Statistics
IS	International Statistics
PS	Plant Specific data
AS	Associations, business organisations
Q	specific questionnaires, surveys

EF - Emission Factors	
D	Default (EMEP Guidebook)
C	Confidential
CS	Country Specific
PS	Plant Specific data

The statements made below regarding source category 2.A.2 refer solely to the amounts of burnt lime and dolomite lime produced in German lime works. Other lime-producing processes are included in NFR 2.C.1 and 2.H.2.

Information about the key source relevance can be found in 2.A - Mineral Industry.

Because of the wide range of applications covered by the sector's products, lime production is normally more isolated from economic fluctuations than is production of other mineral products such as cement. Production has fluctuated relatively little since the end of the 1990s. Dolomite-lime production, of which significantly smaller amounts are produced, basically exhibits similar fluctuations.

Methodology

The pertinent emissions level is obtained by multiplying the amount of product in question (quick lime or dolomite lime) and the relevant emission factor.

Activity data

The German Lime Association (BVK) collects the production data for the entire time series on a plant-specific basis, and makes it available for reporting purposes. Production amounts are determined via several different concurrent procedures; their quality is thus adequately assured (Tier 2). Most companies are also required to report lime-production data within the framework of CO_2-emissions trading. The EU monitoring guidelines for emissions trading specify a maximum accuracy of 2.5%. It is additionally assumed that 2% of the burnt lime is separated as dust in all years of the reporting period from 1990 onwards via appropriate exhaust gas purification systems and is not returned to the production process. This is taken into account by a potential 2% increase in activity rates.

Emission factors

Table 1: Emission factors for quick-lime production

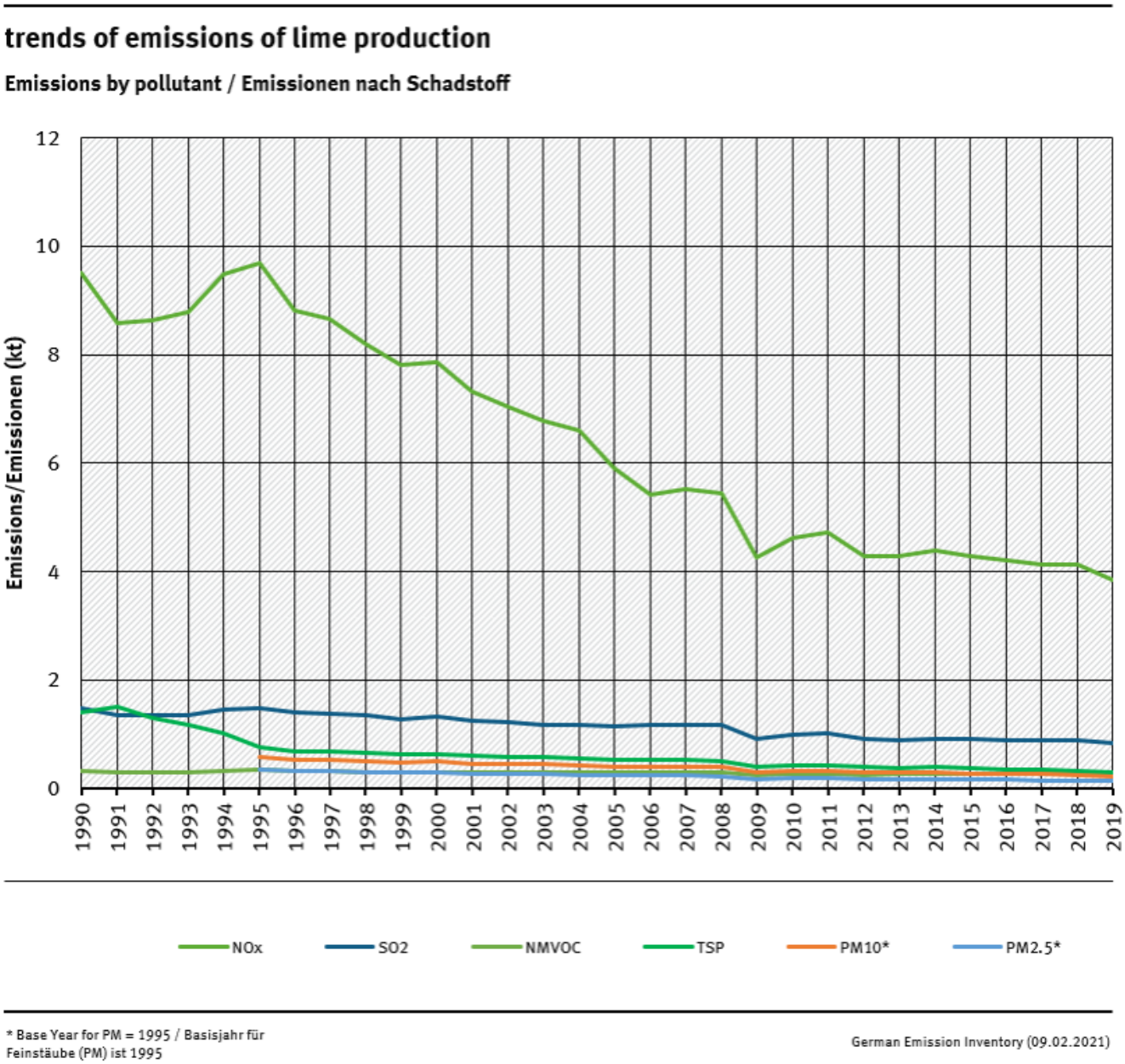
pollutant	Name of Category	EF	unit	Trend
NO_x	quicklime	0.59	kg/t	falling
SO_2	quicklime	0.12	kg/t	falling
NMVOC	quicklime	0.041	kg/t	constant
TSP	quicklime	0.050	kg/t	falling
PM_{10}	quicklime	0.038	kg/t	falling
$PM_{2.5}$	quicklime	0.023	kg/t	falling
Hg	quicklime	2.62	mg/t	falling

Table 2: Emission factors for dolomite production

pollutant	Name of Category	EF	unit	Trend
NO_x	dolomite	1.81	kg/t	falling
SO_2	dolomite	0.59	kg/t	falling
NMVOC	dolomite	0.041	kg/t	constant
TSP	dolomite	0.038	kg/t	falling
PM_{10}	dolomite	0.029	kg/t	falling
$PM_{2.5}$	dolomite	0.017	kg/t	falling
Hg	quicklime	2.94	mg/t	falling

Trends in emissions

All trends in emissions correspond to trends of emission factors in table above. No rising trends are identified.



Emission trends in NFR 2.A.2

Recalculations

With **activity data** and **emission factors** remaining unrevised, no recalculations have been carried out compared to last year's submission.

For pollutant-specific information on recalculated emission estimates for Base Year and 2018, please see the pollutant specific recalculation tables following chapter 8.1 - Recalculations.

Planned improvements

At the moment, no category-specific improvements are planned.