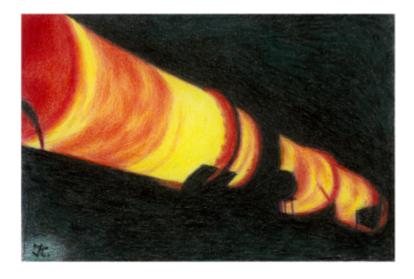
1.A.2.f - Stationary Combustion in Manufacturing **Industries and Construction: Non-Metallic Minerals**

Short Description

Sub-category 1.A.2.f - Non Ferrous Metals refers to emissions from fuel consumption for burning processes in energyintensive mineral industries.

1	NFR Code		Metho	d	AD		EF	:]					
	1.A.2.f		T1		NS		CS	5]					
Method	(s) applied								1					
	D	De	Default											
	T1	Tie	Tier 1 / Simple Methodology *											
	T2	Tie	Tier 2*											
	Т3	Tie	Tier 3 / Detailed Methodology *											
	С	CO	CORINAIR											
	CS	Co	Country Specific											
	м	Мо	del											
* as deso	cribed in the El	MEP/EEA I	Emission Ir	nventory Gu	uidebook -	2019, in ca	ategory c	hapters.						
(source	for) Activity	Data												
	NS	Na	National Statistics											
	RS	Re	Regional Statistics											
	IS	Int	International Statistics											
	PS	Pla	Plant Specific											
	As	Ass	Associations, business organisations											
	Q	spe	specific Questionnaires (or surveys)											
	м	Мо	Model / Modelled											
	С	Co	Confidential											
(source	for) Emissio	n Factors	5											
	D	De	Default (EMEP Guidebook)											
CS			Country Specific											
PS			Plant Specific											
	м	Мо	Model / Modelled											
	С	Co	nfidential											
NOx	NMVOC	SO ₂	NH ₃	PM _{2.5}	PM ₁₀	TSP	BC	CO	PB	Cd	Hg	PCDD/F	PAHs	
-/-	-/-	-/-	-/-	-	-	-/-	-	-/-	-	-	-			T

NO _x	NMVOC	SO ₂	NH₃	PM _{2.5}	PM ₁₀	TSP	BC	СО	PB	Cd	Hg	PCDD/F	PAHs	HCB
Method	(s) applied								1					
	D	C	efault						1					
	T1	T	ier 1 / Simp	le Methodol	ogy *				1					
	T2	T	ier 2*						1					
	Т3	Т	ier 3 / Detai	led Method	ology *				1					
	С	C	ORINAIR						1					
CS			ountry Spea	cific					1					
	м	M	1odel						1					
* as desc	ribed in the El	MEP/EEA	Emission li	าventory Gเ	uidebook -	2019, in ca	ategory o	hapters.	1					
(source	for) Activity	Data							1					
	NS	N	lational Stat	istics										
	RS	R	egional Sta	tistics										
	IS	li	nternational	Statistics										
	PS	P	lant Specifio	2										
	As	A	ssociations,	business o	rganisatior	าร								
	Q	s	pecific Ques	tionnaires ((or surveys)								
	М	M	lodel / Mode	elled										
	С	C Confidential												
(source	for) Emission	n Facto	rs											
	D		Default (EMEP Guidebook)											
	CS		ountry Spec											
	PS	P	lant Specifio	2										
	м	Ν	lodel / Mode	elled										
	С	C	onfidential											



In order of significance relating energy use and emissions, the covered industries are:

- burning of cement clinker,
- burning of quicklime,
- melting of glass,
- burning of ceramics.

Method

Regarding the burning processes emissions can allocated to the use of fuels or to the production process. Current allocation is regarding the main importance of the production process.

Activity data

The key source of all conventional fuel data is the national energy balance. Moreover the use of additional statistical data is necessary in order to disaggregate data. Data source for fuel inputs for energy-related process combustion in cement industry are manufacturing-sector statistics (Statistik des produzierenden Gewerbes); reporting number (Melde-Nr.) 23.51, Cement production. Furthermore the cement industry uses significant amounts of substitute fuels that do not appear in national statistics and in the Energy Balance. Relevant production figures and fuel-use amounts have been taken from statistics of the VDZ cement-industry association. The fuel-input data for ceramics production has also been taken from manufacturing industry statistics (Statistik des produzierenden Gewerbes); reporting no. (Melde-Nr.) 23.32, brickworks (Ziegelei), production of other construction ceramics. The same statistic is also used as source for fuel input of glass (reporting number: 23.1, Production of glass and glassware) and lime production (reporting number: 23.52, Lime).

Emissions

Due to allocating emissions to process part we have removed most of time series inconsistencies. The current situation is the following:

Table 1: relevance of emission sources regarding the fuel use due to burning processes in 1.A.2.f

	SO,	NOx	CO	ΝΜVΟC	NH3	TSP	BC
cement	IE1	IE ¹	medium	IE1	IE^1	IE ²	NE
lime	IE ¹	IE ¹	IE1	IE1	low	IE ²	NE
glass	IE ²	IE1	IE1	IE1	IE ¹	IE ²	NE
ceramics	ΙE ³	IE ³	low	IE1	IE ¹	IE ¹	NE

¹ Included in process related emissions, in all cases it is the link to complementary source category.

² Some artifacts occur for 1990 emissions that cannot be shifted.

³ Inclusion in process related emissions occurs from different time points onwards.

The entire appraisal of the emissions situation succeeds only in connection with the process related emissions. Especially further relevant pollutants as heavy metals or persistent organics are shown as process related generally.

Recalculations

Recalculations were necessary for 2020 due to the implementation of the now finalised National Energy Balance.



For **pollutant-specific information on recalculated emission estimates for Base Year and 2020**, please see the recalculation tables following chapter 8.1 - Recalculations.

Planned improvements

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