2.C.7.a - Copper Production

Short description

Method	AD	EF	Key Category Analysis
T1	AS	D, CS	**L&T**: Cd / **L**: Pb

Within this NFR sub-category, SO,,2,,, PM,,2.5,,, PM,,10,,, TSP, PCDD/F, HCB, As, Cd, Cu, Hg, and Pb emissions from the production of copper are reported.

Methodology

Activity data

The yearly production figures were taken from the annual statistical report of the German association for non-ferrous metals [1)].

Emission factors

The emission factors are either default values according to the 2016 EMEP/EEA air pollutant emission inventory guidebook or determined in several research projects. The EF for the heavy metals (HM) are taken from a research project [2)].

Table 1: Tier1 emission factors applied for entire time series

~ Pollutant	~ EF	~ Unit
HCB	> 1	mg/t
PCDD/F	> 2.9	µg/t
TSP	> 0.100	kg/t
PM,,10,,	> 0.085	kg/t
PM,,2.5,,	> 0.07	kg/t
SO,,2,,	> 3.0	kg/t
As	> 7	g/t
Cd	> 15	g/t
Cu	> 57	g/t
Hg	> 0.031	g/t
Pb	> 16	g/t

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

No category specific improvements are planned.

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bibliography : 1: German association for non-ferrous metals (WirtschaftsVereinigung Metalle): Annual statistical report: https://www.wvmetalle.de : 2 : Ökopol, IER, IZT, IfG: Bereitstellung einer qualitätsgesicherten Datengrundlage für die Emissionsberichterstattung zur Umsetzung von internationalen Luftreinhalte- und Klimaschutzvereinbarungen für ausgewählte Industriebranchen Teilvorhaben 2: NE-Metallindustrie, Kalkindustrie, Gießereien. bibliography

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[1)] (bibcite 1)
[2)] (bibcite 2)