

## Appendix 2.1 - Reporting of PM emissions

The condensable fraction of particulate matter (PM<sub>2.5</sub>) is documented for all activities in the emissions database. A documentation entry has been created for each time series, indicating the following options for condensable particulate matter:

- Yes (measured/determined), the condensable fraction of PM<sub>2.5</sub> was measured and is included in the emission values
- No, the condensable fraction has not been determined and is not included in the emission values
- NA (no condensable PM<sub>2.5</sub> is generated in the process)
- Unknown, the condensable fraction for PM<sub>2.5</sub> is unknown and could be zero

Below is an excerpt from the database, showing the aforementioned documentation entries by source category.



NFR categories with no reported activity or PM<sub>2.5</sub> emissions are excluded here.

NFR Source Category		Yes	Not Applicable	No	Unknown	Number of document entries	
		(measured/determined)	(no condensable PM <sub>2.5</sub> are generated in the process)	(potentially possible)			
NFR 1 Energy							
1 A 1 a i	Electricity Generation	-	-	113	-	-	113
1 A 1 a iii	Heat Plants	-	-	38	-	-	38
1 A 1 b	Petroleum Refining	-	-	31	-	-	31
1 A 1 c i	Manufacture of Solid Fuels	-	-	34	-	-	34
1 A 1 c iii	Other Energy Industries	-	-	3	-	-	3
1 A 1 c iv	Other Manufacture of Solid Fuels and Other Energy Industries	-	-	13	-	-	13
1 A 2 a	Iron and Steel	-	-	21	-	-	21
1 A 2 g vii	Off-road Vehicles and Other Machinery	4	-	-	-	-	4
1 A 2 g viii	Other	-	-	104	-	-	104
1 A 3 a i (i)	International Aviation LTO (civil)	-	-	-	2	-	2
1 A 3 a i (ii)	International Aviation Cruise (civil)	-	-	-	2	-	2
1 A 3 a ii (i)	Domestic Aviation LTO (civil)	-	-	-	2	-	2
1 A 3 a ii (ii)	Domestic Aviation Cruise (civil)	-	-	-	2	-	2
1 A 3 b i	Road Transport: Passenger Cars	154	-	-	-	-	154
1 A 3 b ii	Road Transport: Light duty vehicles	138	-	-	-	-	138
1 A 3 b iii	Road Transport: Heavy duty vehicles and buses	136	-	-	-	-	136

1 A 3 b iv	Road Transport: Mopeds and Motorcycles	56	-	-	-	-	56
1 A 3 b vi	Road Transport: Automobile tyre and brake wear	-	12	-	-	-	12
1 A 3 b vii	Road Transport: Automobile road abrasion	-	6	-	-	-	6
1 A 3 c	Rail Transport	11	-	1	-	-	12
1 A 3 d i (i)	International Maritime Navigation	-	-	-	3	-	3
1 A 3 d ii	National Navigation (shipping)	8	-	1	1	-	10
1 A 3 e i	Pipeline Transport	-	-	3	-	-	3
1 A 4 a i	Commercial/Institutional: Stationary	-	-	29	-	-	29
1 A 4 a ii	Commercial/Institutional: Mobile	3	-	-	-	-	3
1 A 4 b i	Residential: Stationary	-	-	15	-	-	15
1 A 4 b ii	Residential: Household and Gardening (mobile)	-	-	4	4	-	8
1 A 4 c i	Agriculture/Forestry/Fishing: Stationary	-	-	16	-	-	16
1 A 4 c ii	Agriculture/Forestry/Fishing: Off-road Vehicles and other Machinery	6	-	-	-	-	6
1 A 4 c iii	Agriculture/Forestry/Fishing: National Fishing	-	-	-	4	-	4
1 A 5 a	Other Stationary (including military)	-	-	10	-	-	10
1 A 5 b	Other Mobile (including military, land based and recreational boats)	-	-	9	1	-	10
1 B 1 a 2 i	Mining Activities	-	1	-	-	-	1
1 B 1 b	Solid Fuel Transformation	-	6	2	-	-	8
1 B 2 c 2 ii	Gas	-	-	1	-	-	1
<b>NFR 2 - IPPU</b>							
2 A 1	Cement Production	-	-	1	-	-	1
2 A 2	Lime Production	-	-	-	2	-	2
2 A 3	Glass Production	6	-	-	-	-	6
2 A 4 a	Ceramics	-	-	-	15	-	15
2 A 5 a	Quarrying and Mining of Minerals other than Coal	-	4	-	-	-	4
2 A 5 b	Construction and Demolition	-	5	-	-	-	5
2 B 5 b	Calcium Carbide	-	-	-	1	-	1
2 B 8 f	Carbon Black	-	-	-	1	-	1
2 B 10 a	Chemical Industry: Other	-	-	-	1	-	1
2 C 1 a	Steel	-	-	-	4	-	4
2 C 1 b	Pig Iron	-	-	-	1	-	1
2 C 1 d	Sinter	-	-	-	1	-	1
2 C 1 f	Other Iron and Steel Production	-	-	-	1	-	1
2 C 2	Ferroalloys Production	-	-	-	1	-	1

2 C 3 a	By-Product Emissions	-	-	-	2	-	2
2 C 5	Lead Production	-	-	-	2	-	2
2 C 6	Zinc Production	-	-	-	2	-	2
2 C 7 a	Copper Production	-	-	-	2	-	2
2 C 7 c	Other Metal Production	-	-	-	1	-	1
2 D 3 b	Road Paving with Asphalt	-	-	-	1	-	1
2 G 4	Further Product Manufacture and Use	3	-	-	1	-	4
2 H 1	Pulp and Paper Industry	-	-	2	-	-	2
2 H 2	Food and Beverages Industry	-	-	-	2	-	2
2 I	Wood Processing	-	1	-	-	-	1
2 L	Handling of Bulk Products	-	1	-	89	-	90
<b>NFR 3 - Agriculture</b>							
3 B 1 a	Dairy Cattle	-	1	-	-	-	1
3 B 1 b	Non-dairy Cattle	-	6	-	-	-	6
3 B 2	Sheep	-	1	-	-	-	1
3 B 3	Swine	-	4	-	-	-	4
3 B 4 c	Deer	-	1	-	-	-	1
3 B 4 d	Goats	-	1	-	-	-	1
3 B 4 e	Horses	-	1	-	-	-	1
3 B 4 g i	Laying Hens	-	1	-	-	-	1
3 B 4 g ii	Broilers	-	1	-	-	-	1
3 B 4 g iii	Turkeys	-	1	-	-	-	1
3 B 4 g iv	Other Poultry	-	3	-	-	-	3
3 B 4 h	Other Animals	-	3	-	-	-	3
3 D 3	Farm-level Agricultural Operations incl. Storage, Handling and Transport of Agri. Products	-	1	-	-	-	1
<b>NFR 5 - Waste</b>							
5 A 1	Managed Waste Disposal Sites	-	1	-	-	-	1
5 C 1 a ii 5	Other Waste	-	-	1	-	-	1
5 C 2 a ii	Other Biogenic Waste	-	-	-	1	-	1
5 E	Other Waste	-	-	-	6	-	6
<b>NFR 11 - Natural Sources</b>							
11 B	Forest Fires	-	-	-	1	-	1
<b>SUM</b>			<b>525 62</b>	<b>452</b>	<b>159</b>	<b>1.198</b>	