

# Appendix 2.1 - Reporting of PM emissions

Table A2.1: Inclusion/exclusion of the condensable component from PM<sub>10</sub> and PM<sub>2.5</sub> emission factors (NOTE: NFR categories with no reported activity or PM emissions (notation keys 'NO' or 'NA' in the NFR tables) are excluded here!)

NFR code	Source / sector name		condensable component	EF reference and/or comments		
		included	excluded			
NFR 1 - Energy						
1.A.1.a	Public electricity and heat production			x		
1.A.1.b	Petroleum refining			x		
1.A.1.c	Manufacture of solid fuels and other energy industries			x		
1.A.2.a	Stationary combustion in manufacturing industries and construction: Iron and steel			x		
1.A.2.b	Stationary combustion in manufacturing industries and construction: Non-ferrous metals			?	no indication	
1.A.2.c	Stationary combustion in manufacturing industries and construction: Chemicals					
1.A.2.d	Stationary combustion in manufacturing industries and construction: Pulp, Paper and Print					
1.A.2.e	Stationary combustion in manufacturing industries and construction: Food processing, beverages and tobacco			x		
1.A.2.f	Stationary combustion in manufacturing industries and construction: Non-metallic minerals					
1.A.2.g vii	Mobile combustion in manufacturing industries and construction (please specify in the IIR)	orange	x <sup>1</sup>		country-specific EF likely to include condensables	
1.A.2.g viii	Stationary combustion in manufacturing industries and construction: Other (please specify in the IIR)			x		
1.A.3.a i(i)	International aviation LTO (civil)			?	country-specific EF without clear indication	

1.A.3.a ii(i)	Domestic aviation LTO (civil)		?	country-specific EF without clear indication	
1.A.3.b i	Road transport: Passenger cars	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.b ii	Road transport: Light duty vehicles	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.b iii	Road transport: Heavy duty vehicles and buses	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.b iv	Road transport: Mopeds & motorcycles	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.b v	Road transport: Gasoline evaporation		NA		
1.A.3.b vi	Road transport: Automobile tyre and brake wear		x		
1.A.3.b vii	Road transport: Automobile road abrasion		x		
1.A.3.c	Railways	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.d i(ii)	International inland waterways		IE	included in NFR 1.A.3.d ii	
1.A.3.d ii	National navigation (shipping)		x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.3.e i	Pipeline transport		x		
1.A.4.a i	Commercial/Institutional: Stationary		x		
1.A.4.a ii	Commercial/Institutional: Mobile	orange	x <sup>1</sup>	country-specific EF likely to include condensables	
1.A.4.b i	Residential: Stationary		x		
1.A.4.b ii	Residential: Household and gardening (mobile)		?	country-specific EF without clear indication	
1.A.4.c i	Agriculture/Forestry/Fishing: Stationary		x		
1.A.4.c ii	Agriculture/Forestry/Fishing: Off-road vehicles and other machinery	orange	x <sup>1</sup>	country-specific EF likely to include condensables	

1.A.4.c iii	Agriculture/Forestry/Fishing: National fishing		?	country-specific EF without clear indication	
1.A.5.a	Other stationary (including military)		x		
1.A.5.b	Other, Mobile (including military, land based and recreational boats)	orange x^^1^^		country-specific EF likely to include condensables	
1.B.1.a	Fugitive emission from solid fuels: Coal mining and handling		x		
1.B.1.b	Fugitive emission from solid fuels: Solid fuel transformation		x		
1.B.2.c	Venting and flaring (oil, gas, combined oil and gas)		?	EMEP GB 2016 EF without any indication	
<b>NFR 2 - IPPU</b>					
2.A.1	Cement production		?	country-specific EF without any indication	
2.A.2	Lime production		?	country-specific EF without any indication	
2.A.3	Glass production		?	country-specific EF without any indication	
2.A.5.a	Quarrying and mining of minerals other than coal		?	EMEP GB 2016 EF without any indication	
2.A.5.b	Construction and demolition		?	EMEP GB 2016 EF without any indication	
2.A.5.c	Storage, handling and transport of mineral products	IE	included in NFR 2.L		
2.A.6	Other mineral products (please specify in the IIR)		?	country-specific EF without any indication	
2.B.3	Adipic acid production	NE	no EF in EMEP GB 2019		
2.B.5	Carbide production		?	country-specific EF without any indication	
2.B.7	Soda ash production		?	country-specific EF without any indication	
2.B.10.a	Chemical industry: Other (please specify in the IIR)		?	carbon black: country-specific EF without any indication	

2.B.10.a	Chemical industry: Other (please specify in the IIR)		?	fertilizer production: country-specific EF without any indication	
2.B.10.b	Storage, handling and transport of chemical products (please specify in the IIR)	IE	included in NFR 2.L		
2.C.1	Iron and steel production		?	country-specific EF without any indication	
2.C.2	Ferroalloys production		?	country-specific EF without any indication	
2.C.3	Aluminium production		?	country-specific EF without any indication	
2.C.4	Magnesium production	NE	no primary magnesium production; emission for secondary magnesium production allocated in 1.A.2.b		
2.C.5	Lead production		?	country-specific EF without any indication	
2.C.6	Zinc production		?	country-specific EF without any indication	
2.C.7.a	Copper production		?	country-specific EF without any indication	
2.C.7.c	Other metal production (please specify in the IIR)		?	no indication	
2.C.7.d	Storage, handling and transport of metal products (please specify in the IIR)	IE	included in NFR 2.L		
2.D.3.b	Road paving with asphalt		?	country-specific EF without any indication	
2.G	Other product use: Tobacco		?	country-specific EF without any indication	
2.G	Other product use: Fireworks		?	EMEP GB 2019 EF without any indication	
2.G	Other product use: Charcoal		?	EF from 1.A.4 EMEP GB 2019 EF without any indication	

2.H.1	Pulp and paper industry		?	country-specific EF without any indication	
2.H.2	Food and beverages industry		?	EMEP GB 2016 EF without any indication	
2.I	Wood processing		?	country-specific EF without any indication	
2.J	Production of POPs	superscript		action of POPs	NE
2.L	Other production, consumption, storage, transportation or handling of bulk products (please specify in the IIR)	?	country-specific EF without any indication		
<b>NFR 3 - Agriculture</b>					
3.B.1.a	Manure management - Dairy cattle		?	EMEP GB 2016 EF without any indication	
3.B.1.b	Manure management - Non-dairy cattle		?	EMEP GB 2016 EF without any indication	
3.B.2	Manure management - Sheep		?	EMEP GB 2016 EF without any indication	
3.B.3	Manure management - Swine		?	EMEP GB 2016 EF without any indication	
3.B.4.a	Manure management - Buffalo	IE	EMEP GB 2016 EF without any indication		
3.B.4.d	Manure management - Goats		?	EMEP GB 2016 EF without any indication	
3.B.4.e	Manure management - Horses		?	EMEP GB 2016 EF without any indication	
3.B.4.f	Manure management - Mules and asses	IE	EMEP GB 2016 EF without any indication		
3.B.4.g i	Manure management - Laying hens		?	EMEP GB 2016 EF without any indication	
3.B.4.g ii	Manure management - Broilers		?	EMEP GB 2016 EF without any indication	
3.B.4.g iii	Manure management - Turkeys		?	EMEP GB 2016 EF without any indication	
3.B.4.g iv	Manure management - Other poultry		?	EMEP GB 2016 EF without any indication	

3.B.4.h	Manure management - Other animals (please specify in the IIR)	NE	EMEP GB 2016 EF without any indication		
3.D.c	Farm-level agricultural operations including storage, handling and transport of agricultural products		?	EMEP GB 2016 EF without any indication	
<b>NFR 5 - Waste</b>					
5.A	Biological Treatment of Waste - Solid Waste Disposal on Land		?	EMEP-GB 2019: EF without any indication	
5.C.1.b v	Cremation		?	country-specific EF without any indication	
5.E.2	Other Waste: Building and Car Fires		?	EMEP GB 2016 EF without any indication	
<b>MEMO ITEMS - NOT TO BE INCLUDED IN NATIONAL TOTALS</b>					
1.A.3.a i(ii)	International aviation cruise (civil)		?	country-specific EF without clear indication	
1.A.3.a ii(ii)	Domestic aviation cruise (civil)		?	country-specific EF without clear indication	
1.A.3.d i(i)	International maritime navigation		?	country-specific EF without clear indication	
1.A.5.c	Multilateral operations	NE			
11.B	Forest fires		?	EMEP GB 2016 EF without any indication	