

Appendix 2.1 - Reporting of PM emissions

Table A2.1: Inclusion/exclusion of the condensable component from PM₁₀ and PM_{2.5} 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) | x¹ | | 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 |

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|---------------|---|---------------------------------|----------------------------|--|
| 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 | x<sup>1<sup> | | country-specific EF likely to include condensables |
| 1.A.3.b ii | Road transport: Light duty vehicles | x<sup>1<sup> | | country-specific EF likely to include condensables |
| 1.A.3.b iii | Road transport: Heavy duty vehicles and buses | x<sup>1<sup> | | country-specific EF likely to include condensables |
| 1.A.3.b iv | Road transport: Mopeds & motorcycles | 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 | 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 | 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 | 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) | x<sup>1<sup> | | country-specific EF likely to include condensables |

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|---------------------|--|----|-----------------------|---|
| 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 |
| NFR 2 - IPPU | | | | |
| 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 | NE | | |

| | | | | |
|----------------------------|---|----|--|--|
| 2.L | Other production, consumption, storage, transportation or handling of bulk products (please specify in the IIR) | ? | country-specific EF without any indication | |
| NFR 3 - Agriculture | | | | |
| 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 |
| NFR 5 - Waste | | | | |

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|---|---|----|---|--|
| 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 |
| MEMO ITEMS - NOT TO BE INCLUDED IN NATIONAL TOTALS | | | | |
| 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 |