Appendix 2.1 - Reporting of PM emissions

Table A2.1: Inclusion/exclusion of the condensable component from PM,,10,, 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		
					include	d	excluded		
NFR 1 - En	ergy	,							
1.A.1.a	Publi	c electricity and heat production					Х		
1.A.1.b	Petro	oleum refining					Х		
1.A.1.c	Manı	ufacture of solid fuels and other energ	y indu	stries			Х		
1.A.2.a		onary combustion in manufacturing ir truction: Iron and steel	ndustri	es and			Х		
1.A.2.b		onary combustion in manufacturing ir truction: Non-ferrous metals	ndustri	es and	?		?		no indication
1.A.2.c		onary combustion in manufacturing ir truction: Chemicals	ndustri	es and					
1.A.2.d		onary combustion in manufacturing ir truction: Pulp, Paper and Print	ndustri	es and					
1.A.2.e		onary combustion in manufacturing ir truction: Food processing, beverages					х		
1.A.2.f		onary combustion in manufacturing ir truction: Non-metallic minerals	ndustri	es and					
1.A.2.g vii		le combustion in manufacturing indus truction (please specify in the IIR)	stries a	ind		X ¹		C	ountry-specific EF likely to include condensables
1.A.2.g viii	Stat	ionary combustion in manufacturing i construction: Other (please specify i					х		
1.A.3.a i(i)		International aviation LTO (civ	ril)		?	,			ntry-specific EF without ar indication
1.A.3.a ii(i)		Domestic aviation LTO (civil))		?			C	ountry-specific EF without clear indication
1.A.3.b i		Road transport: Passenger ca	rs		x¹			C	ountry-specific EF likely to include condensables
1.A.3.b ii		Road transport: Light duty vehi	cles		x ¹			C	ountry-specific EF likely to include condensables
1.A.3.b iii		Road transport: Heavy duty vehicles a	and bu	ses	x ¹			C	ountry-specific EF likely to include condensables
1.A.3.b iv		Road transport: Mopeds	& mot	orcycles	S x1			C	ountry-specific EF likely to include condensables
1.A.3.b	V	Road transport: Gasoline evaporat	ion	١	NΑ				
1.A.3.b	vi	Road transport: Automobile tyre and brake wear							
1.A.3.b \	/ii	Road transport: Automobile road abrasion				x			
1.A.3.c		Railways		x	·1				country-specific EF likely to include condensables
1.A.3.d i(ii)		International inland waterways			IE	included in NF 1.A.3.d ii		-R	
1.A.3.d ii		National navigation (shipping)		x	•1				country-specific EF likely to include condensables
1.A.3.e i		Pipeline transport				х			
1.A.4.a i		Commercial/Institutional: Stationary				х			
1.A.4.a ii		Commercial/Institutional: Mobile		x	•1				country-specific EF likely to include condensables
1.A.4.b	i	Residential: Stationary				х			
1.A.4.b ii		Residential: Household and garden (mobile)	ing			?			country-specific EF withou 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 ¹		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 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 of and gas)	pil	?	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 othe than coal	r	?	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 mine products	IE	included in NFR 2.L	
2.A.6	Other mineral products (please specify the IIR)	in	?	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 specif in the IIR)	У	?	carbon black: country- specific EF without any indication
2.B.10.a	Chemical industry: Other (please specif in the IIR)	у	?	fertilizer production: country-specific EF without any indication
2.B.10.b	Storage, handling and transport of chemical products (please specify in th IIR)	e 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.7.d Other metal production (please specify in the IIR) 2.C.7.d Storage, handling and transport of metal products (please specify in the IIR) 2.D.3.b Road paving with asphalt ? country-specific EF without any indication any indication any indication and products (please specify in the IIR) 2.G Other product use: Fireworks ? Country-specific EF without any indication any indication and product use: Preworks ? Country-specific EF without any indication and indicatio	2.C.6	Zinc production		?	country-specific EF without any indication
2.C.7.c Other metal production (please specify in the IIR) 2.C.7.d Storage, handling and transport of metal products (please specify in the IIR) 2.D.3.b Road paving with asphalt 2.G Other product use: Tobacco 2.G Other product use: Fireworks 2.G Other product use: Fireworks 2.G Other product use: Charcoal 2.G Other product use: Charcoal 2.H.1 Pulp and paper industry 2.H.2 Food and beverages industry 2.H.2 Food and beverages industry 3.H.2 Other production, consumption, storage, transportation or handling of bulk products (please specify in the IIR) 3.B.1.a Manure management - Dairy cattle 3.B.2. Manure management - Sheep 3.B.3. Manure management - Swine 3.B.4.a Manure management - Goats 3.B.4.d Manure management - Hurles and asses 3.B.4.g Manure management - Laying hens 3.B.4.g Manure management - Cher animals (please specify in the IIR) 4.BME C. Country-specific EF withou any indication 4.BME C. G. Country-specific EF withou any indication 4.BME C. Country-specific EF withou any indication 4.BME C. Country-specific EF withou any	2.C.7.a	Copper production		?	country-specific EF without
2.C.7.4 products (please specify in the IIR) 2.D.3.b Road paving with asphalt ? Country-specific EF withou any indication and	2.C.7.c			?	no indication
2.G Other product use: Tobacco ? Country-specific F withou any indication and indication any indication and indication any indication and ind	2.C.7.d		IE		
2.G Other product use: Fireworks ? EMEP GB 2019 EF withou any indication indication any indication ? EF from I.A.4 EMEP GB 2019 EF without any indication and indication an	2.D.3.b	Road paving with asphalt		?	country-specific EF without any indication
2.G Other product use: Pireworks	2.G	Other product use: Tobacco		?	country-specific EF without any indication
2.6 Other product use: Charcoal ? Cingle Emergence of Country-specific Effective indication any indication and	2.G	Other product use: Fireworks		?	-
2.H.2 Food and beverages industry ? EMEP GB 2016 EF without any indication and in	2.G	Other product use: Charcoal		?	2019 EF without any
2.1. Wood processing ? country-specific EF withou any indication 2.1. Wood processing ? country-specific EF withou any indication 2.1. Other production, consumption, storage, transportation or handling of bulk products (please specify in the IIR) ? EF without any indication 3.B.1.a Manure management - Dairy cattle ? EMEP GB 2016 EF withou any indication 3.B.1.b Manure management - Dairy cattle ? EMEP GB 2016 EF withou any indication 3.B.2. Manure management - Swine ? EMEP GB 2016 EF withou any indication 3.B.3. Manure management - Swine ? EMEP GB 2016 EF withou any indication EMEP GB 2016 EF withou any indication 2.B.4.a Manure management - Buffalo IE EMEP GB 2016 EF withou any indication 2.B.4.a Manure management - Horses ? EMEP GB 2016 EF withou any indication 2.B.4.g ii Manure management - Laying hens ? EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Broilers ? EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication 2.B.4.g iii Manure management - Other ani	2.H.1	Pulp and paper industry		?	-
2.1 Production of POPs	2.H.2	Food and beverages industry		?	•
2.L. Other production, consumption, storage, transportation or handling of bulk products (please specify in the IIIR) NFR 3 - Agriculture 3.B.1.a Manure management - Dairy cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.2 Manure management - Sheep 3.B.3 Manure management - Sheep 3.B.4.a Manure management - Buffalo 3.B.4.a Manure management - Buffalo 3.B.4.b Manure management - Goats 3.B.4.c Manure management - Horses 3.B.4.e Manure management - Horses 3.B.4.g ii Manure management - Laying hens 3.B.4.g iii Manure management - Broilers 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Other noimals (please specify in the IIR) 3.B.4.h Manure management - Other animals (please specify in the IIR) 3.B.4.h Manure management - Other animals (please specify in the IIR) 4. EMEP GB 2016 EF withou any indication 5. EMEP GB 2016 EF withou any indication 7. EMEP GB 2016 EF withou any indication 8.B.4.g iii Manure management - Dairy cattle 9. EMEP GB 2016 EF withou any indication 9. EME	2.1	Wood processing		?	country-specific EF without any indication
2.L transportation or handling of bulk products (please specify in the IIR) NFR 3 - Agriculture 3.B.1.a Manure management - Dairy cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.2 Manure management - Sheep 7 EMEP GB 2016 EF withou any indication 3.B.2 Manure management - Sheep 8 EMEP GB 2016 EF withou any indication 3.B.3 Manure management - Swine 9 EMEP GB 2016 EF withou any indication 1 EMEP GB 2016 EF withou any indication 1 EMEP GB 2016 EF withou any indication 2 EMEP GB 2016 EF withou any indication 3.B.4.a Manure management - Buffalo 1 EMEP GB 2016 EF withou any indication 3.B.4.b Manure management - Horses 7 EMEP GB 2016 EF withou any indication 2 EMEP GB 2016 EF withou any indication 3.B.4.g imanure management - Horses 1 EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Laying hens 7 EMEP GB 2016 EF withou any indication 3.B.4.g iii Manure management - Broilers 7 EMEP GB 2016 EF withou any indication 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Other poultry 7 EMEP GB 2016 EF withou any indication 3.B.4.g iii Manure management - Other poultry 8 EMEP GB 2016 EF withou any indication 1 EMEP GB 2016 EF withou any indication 2 EMEP GB 2016 EF withou any indication 3 EMEP GB 2016 EF withou any indication 3 EMEP GB 2016 EF withou any indication 3 EMEP GB 2016 EF withou any indication 4 EMEP GB 2016 EF withou any indication 5 EMEP GB 2016 EF withou any indication 5 EMEP GB 2016 EF withou any indication 6 EMEP GB 2016 EF withou any indication 7 EMEP GB 2016 EF withou any indication 8 EMEP GB 2016 EF withou any indication 9 EMEP GB 2016 EF withou any indication 1 EMEP GB 2016 EF withou any indication 1 EMEP GB 2016 EF withou any indication 2 EMEP GB 2016 EF withou any indication 3 EMEP GB 2016 EF withou any indication 3 EMEP GB 2016 EF withou any indication	2.J	Production of POPs	NE		
Agriculture 3.B.1.a Manure management - Dairy cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.2 Manure management - Sheep 3.B.3 Manure management - Swine 3.B.4.a Manure management - Swine 3.B.4.a Manure management - Swine 3.B.4.d Manure management - Goats 3.B.4.d Manure management - Horses 3.B.4.e Manure management - Horses 3.B.4.f Manure management - Mules and asses 1E EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Broilers 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Other poultry 3.B.4.g iv Manure management - Other poultry 3.B.4.g iv Manure management - Other poultry 3.B.4.g iv Manure management - Other animals (please specify in the IIR) Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication	2.L	transportation or handling of bulk	?	EF without any	
3.B.1.a Manure management - Dairy Cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.1.b Manure management - Non-dairy cattle 3.B.2 Manure management - Sheep ?					
3.B.2. Manure management - Non-dairy cattle 3.B.2. Manure management - Sheep ? EMEP GB 2016 EF withou any indication 3.B.3. Manure management - Swine 3.B.4.a Manure management - Buffalo 3.B.4.d Manure management - Goats 3.B.4.e Manure management - Horses 7 EMEP GB 2016 EF withou any indication 3.B.4.f Manure management - Mules and asses 8 EMEP GB 2016 EF withou any indication 1.B.4.g ii Manure management - Laying hens 3.B.4.g iii Manure management - Broilers 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Other poultry 3.B.4.g iv Manure management - Other poultry 3.B.4.g iv Manure management - Other animals (please specify in the IIR) Manure management - Other animals (please specify in the IIR) 8 EMEP GB 2016 EF withou any indication 8 EMEP GB 2016 EF withou any indication 8 EMEP GB 2016 EF withou any indication 9 EMEP GB 2016 EF withou any indication 10 EMEP GB 2016 EF withou any indication 11 EMEP GB 2016 EF withou any indication 12 EMEP GB 2016 EF withou any indication 13 EMEP GB 2016 EF withou any indication 14 EMEP GB 2016 EF withou any indication 15 EMEP GB 2016 EF withou any indication 16 EMEP GB 2016 EF withou any indication 17 EMEP GB 2016 EF withou any indication 18 EMEP GB 2016 EF withou any indication 19 EMEP GB 2016 EF withou any indication 20 EMEP GB 2016 EF withou any indication 21 EMEP GB 2016 EF withou any indication 22 EMEP GB 2016 EF withou any indication 23 EMEP GB 2016 EF withou any indication	3.B.1.a	Manure management - Dairy cattle		?	EMEP GB 2016 EF without any indication
3.B.2 Manure management - Sneep 3.B.3 Manure management - Swine 3.B.4.a Manure management - Buffalo 3.B.4.d Manure management - Goats 3.B.4.e Manure management - Horses 3.B.4.f Manure management - Mules and asses 1E EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Laying hens 3.B.4.g ii Manure management - Broilers 3.B.4.g ii Manure management - Turkeys 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Other poultry 3.B.4.g iv Manure management - Other animals (please specify in the IIR) 3.B.4.g ii Manure management - Other animals (please specify in the IIR) 3.B.4.g ii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 3.B.4.g iii Manure management - Other animals (please specify in the IIR) 4. EMEP GB 2016 EF withou any indication 5. EMEP GB 2016 EF withou any indication 6. EMEP GB 2016 EF withou any indication 8. EMEP GB 2016 EF withou any indication 8. EMEP GB 2016 EF withou any indication	3.B.1.b	Manure management - Non-dairy cattle		?	EMEP GB 2016 EF without any indication
3.B.4.a Manure management - Swine Pember GB 2016 EF without any indication Pem	3.B.2	Manure management - Sheep		?	-
3.B.4.a Manure management - Buffalo IE without any indication 3.B.4.d Manure management - Goats 7. EMEP GB 2016 EF without any indication 3.B.4.e Manure management - Horses 7. EMEP GB 2016 EF without any indication 3.B.4.f Manure management - Mules and asses 8. EMEP GB 2016 EF without any indication 9. EMEP GB 2016 EF without any indication 10. EMEP GB 2016 EF without any indication	3.B.3	Manure management - Swine			
3.B.4.e Manure management - Goats ? EMEP GB 2016 EF withou 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 withou any indication 3.B.4.g ii Manure management - Broilers ? EMEP GB 2016 EF withou any indication 3.B.4.g iii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 3.B.4.g iv Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 3.B.4.h Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication Farm-level agricultural operations including storage, handling and transport of agricultural products ? EMEP GB 2016 EF withou any indication	3.B.4.a	Manure management - Buffalo	IE	without any	
3.B.4.f Manure management - Horses 3.B.4.f Manure management - Mules and asses IE EMEP GB 2016 EF withou any indication 3.B.4.g ii Manure management - Broilers 3.B.4.g iii Manure management - Turkeys 3.B.4.g iv Manure management - Other poultry 3.B.4.g iv Manure management - Other animals (please specify in the IIR) Manure management - Other animals including storage, handling and transport of agricultural products PMEP GB 2016 EF withou any indication EMEP GB 2016 EF withou any indication	3.B.4.d	Manure management - Goats		?	
3.B.4.f Manure management - Mules and asses IE without any indication 3.B.4.g i Manure management - Laying hens 3.B.4.g ii Manure management - Broilers 3.B.4.g iii Manure management - Turkeys 3.B.4.g iii Manure management - Turkeys 3.B.4.g iv Manure management - Other poultry 3.B.4.h Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication	3.B.4.e	Manure management - Horses		?	I .
3.B.4.g ii Manure management - Broilers ? EMEP GB 2016 EF withou any indication 3.B.4.g iii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 3.B.4.g iv Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 3.B.4.h Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF withou any indication Farm-level agricultural operations including storage, handling and transport of agricultural products PARTY OF THE WITHOUT AND INCIDENT A	3.B.4.f	Manure management - Mules and asses	IE	without any	
3.B.4.g iii Manure management - Brollers ? any indication 3.B.4.g iii Manure management - Turkeys ? EMEP GB 2016 EF withou any indication 3.B.4.g iv Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 3.B.4.h Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF without any indication 5.B.4.h Wanure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF without any indication 6.B.4.h Wanure management - Other animals (please specify in the IIR) PER GB 2016 EF without any indication 7.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 8.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 9.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 1.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 1.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 1.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 1.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication 1.B.4.h Wanure management - Other poultry PEMEP GB 2016 EF without any indication	3.B.4.g i	Manure management - Laying hens		?	
3.B.4.g iv Manure management - Turkeys ? any indication 3.B.4.g iv Manure management - Other poultry ? EMEP GB 2016 EF withou any indication 3.B.4.h Manure management - Other animals (please specify in the IIR) NE EMEP GB 2016 EF without any indication Farm-level agricultural operations including storage, handling and transport of agricultural products PMEP GB 2016 EF without any indication 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 IV Manure management - Other poultry 3.B.4.g IV Manure management - Other poultry 3.B.4.h Manure management - Other animals (please specify in the IIR) NE Without any indication Farm-level agricultural operations including storage, handling and transport of agricultural products PMEP GB 2016 EF without any indication PMEP GB 2016 EF without any indication	3.B.4.g iii	Manure management - Turkeys		?	-
3.B.4.h Manure management - Other animals (please specify in the IIR) NE without any indication Farm-level agricultural operations including storage, handling and transport of agricultural products PEMEP GB 2016 EF without any indication	3.B.4.g iv	Manure management - Other poultry		?	EMEP GB 2016 EF without any indication
3.D.c including storage, handling and transport of agricultural products ?	3.B.4.h		NE	without any	
NFR 5 - Waste	3.D.c	including storage, handling and transport		?	EMEP GB 2016 EF without any indication
111110 1111010	NFR 5 - Waste				

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