

~ Raw Lignite	= NE	= NE																	
~ Hard Coal	= NE	= NE																	
~ Hard Coal Coke	= NE	= NE																	
1																			
2																			
3																			

As the EMEP/EEA GB 2019 does not provide a tier1 value for **PCDD/F**, the EF applied here has been derived from a study carried out by Rentz et al. (2008) ³⁾ for the German Federal Environment Agency. Furthermore, both **HCB** and **PCBs** emissions are stated as *not applicable* in ⁴⁾, chapter 1.A.3.c Railways, Table 3-1 Tier 1 emission factors for railways.

Inland Vessels and Ships in 1.A.3.d ii

Table 4: Tier1 default emission factors applied to inland ships and vessels

=	= B[a]P	= B[b]F	= B[k]F	= I[...] _p	= PAH 1-4	2	= HCB	= PCBs	= PCDD/F																			
	=							[mg/T]	[µg/T]																			
~ Diesel oil	> 698	4		> 1,164	4		> 801	5	> 184	5	> 2,847	> 1.86	3	> 0.88	3	> 93.0	7											
~ Biodiesel	1		> 806	> 1,343	> 924	> 212	> 3,284	> 1.02	> 2.15	> 107																		
1																												
2																												
3																												
4																												
5																												

Maritime Vessels and Ships in 1.A.3.d i, 1.A.3.d ii, 1.A.4.c iii and 1.A.5.b iii

The following table provides the tier1 EF applied for POPs from ships and vessels in both civil and military operation in NFR categories 1.A.3.d i -International Maritime Navigation, 1.A.3.d ii - National Navigation (Shipping), 1.A.4.c iii -Fishery and 1.A.5.b iii - Other: Military Navigation.

Table 4: Tier1 default emission factors applied to maritime ships and vessels

=	= B[a]P	= B[b]F	= B[k]F	= I[...] _p	= PAH 1-4	2	= HCB	= PCBs	= PCDD/F																			
	=							[mg/T]	[µg/T]																			
~ Diesel oil	> 698	4		> 1,164	4		> 801	5	> 184	5	> 2,847	> 1.86	3	> 0.88	3	> 93.0	7											
~ Biodiesel	1		> 806	> 1,343	> 924	> 212	> 3,284	> 2.15	> 1.02	> 107																		
~ Heavy Fuel oil	6		> 741	> 1,235	> 849	> 195	> 3,020	> 3.46	> 14.1	> 98.7																		
1																												
2																												
3																												
4																												
5																												
6																												
7																												

Aircraft in 1.A.3.a and 1.A.5.b ii

The EMEP/EEA GB 2016 (July 2017) does not provide specific defaults for POP emissions from the combustion of jet kerosene and aviation gasoline, stating that for aviation gasoline these emissions are *not estimated* (NE):

Therefore, the inventory compiler decided to apply the tier1 EF for **PAHs** from gasoline fuel used in non-road mobile machinery here, too. Furthermore, both **HCB** and **PCBs** emissions are stated as *not applicable* in ⁵⁾, chapter 1.A.3.a, 1.A.5.b Aviation, Table 3.3 Tier 1 emission factors for NFR 1.A.3.a.ii.(i): Civil aviation (domestic, LTO).

As the Party assumes that POP emissions from the combustion of jet kerosene are unlikely to occur, these emission are reported as *not applicable* (NA).

Table 5: Tier1 default emisison factors applied to aircraft, in mg/TJ

	B[a]P	B[b]F	B[k]F	I[...]^p	PAH 1-4	PCDD/F
Kerosene	NA	NA	NA	NA	NA	NA
Aviation gasoline	126	182	90	205	602	NE

^{1), 4), 5)} EMEP/EEA (2019): EMEP/EEA air pollutant emission inventory guidebook 2019, Copenhagen, 2019.

^{2), 3)} Rentz et al., 2008: Nationaler Durchführungsplan unter dem Stockholmer Abkommen zu persistenten organischen Schadstoffen (POPs), im Auftrag des Umweltbundesamtes, FKZ 205 67 444, UBA Texte | 01/2008, January 2008 - URL: <http://www.umweltbundesamt.de/en/publikationen/nationaler-durchfuehrungsplan-unter-stockholmer>