1.A.4.c.i - Agriculture/Forestry/Fishing: Stationary

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Short description

In source category 1.A.4.c.i - Agriculture/Forestry/Fishing: Stationary emissions from smaller combustion plants in agricultural facilities and greenhouses are reported.

T = key source by Trend **L** = key source by Level

Methods	
D	Default
RA	Reference Approach
T1	Tier 1 / Simple Methodology *
T2	Tier 2*
Т3	Tier 3 / Detailed Methodology *
С	CORINAIR
CS	Country Specific
M	Model
* as described in the EMEP/CORIN	AIR Emission Inventory Guidebook - 2007, in the group specific chapters.
AD - Data Source for Activity [Data
NS National Statistics	
RS Regional Statistics	
IS International Statistics	
PS Plant Specific data	
AS Associations, business organis	ations
Q specific questionnaires, surve	ys
EF - Emission Factors	
Default (EMEP Guidebook)	
C Confidential	
CS Country Specific	
PS Plant Specific data	

Methodology

Activity data

For further information on activity data please refer to the superordinte chapter on small stationary combustion.

Emission factors

For further information on the emission factors applied please refer to the superordinte chapter on small stationary combustion.

Table 1: Emission factors for commercial and institutional combustion installations

= Pollutant	~ NO,,x,,	~ SO,,x,,	~ CO	~ NMVOC	~ TSP	~ PM,,1	.0,, ~	PM,,2.5,,	~ PAH	~ PCDD/F
= Fuel							=	[kg/TJ]	= [mg/TJ]	= [µg/TJ]
~ Hard Coal	> 76.2	> 331.7	> 2,709	> 48.4	> 18.5	> 17.6	>	15.7	> 60,000	> 16.3

~ Residual Wood	> 79.2	> 6.5	> 2,285	> 122.1	> 84.2 > 81.6	> 76.9	> 430,000	> 355.3
~ Light Fuel Oil	> 43.7	> 3.3	> 11.9	> 2.6	> 1.0 > 1.0	> 1.0	> 160.7	> 2.7
~ Natural Gas	> 27.2	> 0.1	> 11.1	> 0.36	> 0.03 > 0.03	> 0.03	> 40	> 1.6

TSP and PM emission factors are to a large extend based on measurements without condensed compounds, according to CEN-TS 15883, annex I. PAH measurement data contain the following individual substances: Benzo(a)pyrene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(b)fluoranthene, Benzo(j)fluoranthene, Benzo(ghi)perylene, Anthracene, Benzo(a)anthracene, Chrysene(+Trihenylene) and Dibenz(a,h)anthracene, as a specific part of US EPA.

+ Trend Discussion for Key Sources

The following charts give an overview and assistance for explaining dominant emission trends of selected pollutants.

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Annual fluctuations of all fuel types in source category *1.A.4* depend on heat demand subject to winter temperatures. Between 1990 and 2014 the fuel use changed considerably from coal & lignite to natural gas. The consumption of light heating oil decreased as well. As the activity data for light heating oil is based on the sold amount, it fluctuates due to fuel prices and changing storage amounts. + <u>Recalculations</u>

Recalculations were necessary for the latest reference year (2017) due to the availability of the National Energy Balance. Germany has a federal structure which causes a time lack of the National Energy Balance. Therefore recalculations are always necessary. Further recalculations are the result of the revision of biomass from 2003 onwards.

For specific **information on recalculated emission estimates for Base Year and 2017**, please see the pollutant specific recalculation tables following chapter 8.1 - Recalculations].

+ Planned improvements