

GUIDELINES FOR CALCULATING THE QUANTITIES OF POLLUTANTS EMITTED INTO THE AIR FROM THERMAL ENERGY PLANTS AND DEVICES

PARTICIPATIO



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for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

**Umwelt
Bundesamt**

Summary

This Guidelines was prepared in accordance with the rules applicable to reporting under the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) and the UN Framework Convention on Climate Change (UNFCCC). Methodologies for preparing data for reporting are detailed in Technical Report no. 9/2009 "EMEP/EEA air pollutant emission inventory guidebook" of the European Environment Agency and "2006 IPCC Guidelines for National Greenhouse Gas Inventories" of the Intergovernmental Panel on Climate Change.

The Guidelines is intended for operators who own or manage thermal energy plants in order to calculate the amount of pollutants emitted into the air as accurately as possible. The instructions cover the following three categories of plants, i.e. devices:

1. Production of energy and heat in combustion plants with installed capacities greater than 50 MW
2. Production of energy and heat in combustion plants with installed capacities ranging from 20 to 50 MW
3. Production of energy and heat in combustion plants and devices with an installed capacity of less than 20 MW.

In accordance with the UNECE Protocol on PRTRs and the EU's E-PRTR Regulation No 166/2006, data must be submitted by operators of plants with installed capacities greater than 50 MW, serial number 1. Categories under serial numbers 2 and 3 include devices with smaller installed capacities that are used in residential and non-residential facilities, most often for heat production, which is detailed in chapter 4. The operators of these facilities do not submit data for the register, but their data is used in reporting according to the above conventions.

The Guidelines is divided into five chapters. In the first chapter, introductory notes are given about the Guidelines, as well as to whom the Guidelines is intended. In the second chapter, reporting obligations resulting from the ratified conventions and protocols are briefly presented, while in the third chapter, an overview is given of the polluting substances that are reported. The fourth chapter is devoted to the sources of polluting substances from the energy sector. In the fifth chapter, the methodology for calculating the amount of pollutants emitted into the air from energy sources is presented in detail. In Appendices 1 - 6, for the sake of transparency, the emission factors used in the calculation of the amount of polluting substances emitted into the air, are given. Finally, in Appendix A there is a calculation for the correction of emission factors for sulphur dioxide, and in Appendix B there is a table for conversion of units.

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