

## Preface

The summary annual tabular survey “Air Pollution and Atmospheric Deposition in Data, the Czech Republic...” (hereinafter the Tabular Survey) is published as a basic document for the work of state administration authorities and organizations concerned with environmental issues and air quality protection in the Czech Republic. The Tabular Survey has been published, and supplemented on a year-by-year basis, by the Czech Hydrometeorological Institute since the beginning of the nineteen seventies. Starting from 1981 data from the air pollution networks for monitoring air pollution conditions were stored and processed in the Internal (later Air Pollution) Information System (IIS) of the Territorial Information System (ISU).

Since 1992, the Air Pollution Information System, along with the other air quality information sources, has become an integral part of the Air Quality Information System (ISKO). Each year, information is stored in this air pollution database both from data from CHMI and the networks of the Health Institutes (ZÚ) as well as from data from stations in the networks of the Forest Management and Gamekeeping Research Institute (VÚLHM), ČEZ Inc. operated by the Organization for the Rationalization of Power Plants (ORGREZ) Co. and the networks of municipal monitoring. Changes are made in the monitoring networks operating on the territory of the Czech Republic every year. Of those that occurred in 1993, the most important included termination of operations of the older system and initiation of the innovated automated air pollution monitoring (AIM) in the network of CHMI, in 2003–2004 the CHMI monitoring networks were re-established. The measuring sites were located with regard to the monitoring aims set in the respective EU directives, the Clean Air Act No. 86/2002 Coll. as amended on clean air protection and amendment of some other acts and the Government Order No. 350/2002 Coll. as amended, setting forth limit values and procedures of monitoring, assessment, evaluation and management of air quality, and to the measuring programmes and ways of pollutants' measurement in order to ensure the ambient air quality monitoring on the whole territory of the Czech Republic and mainly in the areas with deteriorated air quality.

On the basis of EU requirements on national networks of air pollution measurement the CHMI air pollution monitoring sites proved the compliance of their activities (sampling and measurements) with strict requirements for the system of quality set by the international standard CSN EN ISO/IEC 17 025. The compliance with this standard was confirmed in the external audit by the third party (the Czech Accreditation Institute) and air pollution monitoring sites obtained the respective certificate in 2005. The audit covered not only validated measurement procedures and the used measuring instruments but also the staff responsible for the operation of the network. The Certificate of Compliance applies to the major part of carried out sampling and measurements in air pollution monitoring network. The successful accreditation process facilitates international recognition of the results of CHMI measurements.

Since 1996, data from German side of the former “Black Triangle”, and since 1997, data from Polish side as well have been stored in the ISKO database and presented in the Tabular Survey.

This Tabular Survey is the result of summary processing of air pollution data systematically stored over the given calendar year. It is intended primarily to give a timely objective publication of measured air pollution data from the above mentioned monitoring networks. The process of verification of the credibility of the measured data plays an

important role in the annual processing and is an inseparable part of the preparation of the Tabular Survey.

Since 1993, the Tabular Survey has consisted of both a printed part – the summary annual survey – and also a detailed part consisting of daily information. The summary part presents a number of air pollution measurements from specialized air pollution networks. Notably, since 1994, the Tabular Survey has provided information on contents of heavy metals in suspended particulate matter. Further, the Tabular Survey has become a medium for the publication of data on the chemical composition of precipitation. Since 1994, the air pollution database has been extended to include information on volatile organic compounds in the air. Since 1995, the supplementary meteorological data have been involved and since 1997 systematic monitoring of persistent organic compounds and automatic monitoring of aromatic hydrocarbons in the air have become a part of air pollution database.

The Tabular Survey for the year 2005 includes the assessment of PM<sub>2.5</sub> measurements in 2005 with regard to the proposed air pollution limit value in the prepared EU directive.

The way of presentation of the Tabular Survey was changed in 2003. The printed part contains the commentary and basic information on the measuring sites and the summary overviews of limit values exceedences according to the valid legislation. Other overviews incl. the detailed overview of daily averages at the stations are presented on the attached CD. The complete Tabular Survey is publicly accessible at <http://www.chmi.cz>.

More extensive assessment, especially in the framework of territories, is contained in the Graphic Yearbook, whose preparation is bound to the tabular treatment.

The requirements of accuracy in the contents and formal aspects and completeness of the Tabular Survey and the requirement that the information be published as soon as possible lead to a certain conflict of conditions in the preparation of this Survey and each published edition thus constitutes a compromise between these two requirements. The readiness with which the Tabular Survey can be published is determined primarily by the deadline for completion of the annual input of data into the database, especially data from manual networks, their assembling, multi-level verification and correction in cooperation with data suppliers. Statistically based database applications to find significant errors in extensive sets of measured values have become a standard part of the preparation since 1994. The utilization of these procedures prior to the actual data processing for the Tabular Survey increases the quality of the published data.

The presentation of the measured and calculated data (aggregated data) in this Tabular Survey fully meets the valid legislation of the Czech Republic in the field of air quality protection.

In conclusion, it is necessary to point out that this publication, and especially the database on which it is founded, were created as a consequence of a vast amount of work on the part of a great many individuals, employees of the institute branches, laboratories of the Air Quality Protection Division of the CHMI and of cooperating organizations. The actual preparation of the Tabular Survey is the result of cooperative work by the group of authors from the Air Quality Information System Department and employees of the IDEA-ENVI Co. Ltd.

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Ing. Jaroslav Šantroch, CSc.  
Deputy Director for Air Quality Protection