

## List of abbreviations and explanatory notes

### Tabular part of air pollution characteristics

#### Tables:

#### Summary overviews of limit values exceedences according to the Government Order No. 350/2002 Coll. and max. values at stations of the Czech Republic in 2004

- bold** – exceedence of air pollution limits LV+ MT (the condition of the tolerated number of exceedences TE needn't be fulfilled) assuming that the data fulfil the requirements for validity of data for calculation of the annual air pollution characteristics
- dark grey background – exceedence of air pollution limits LV+MT incl. the condition of the tolerated number of exceedences TE assuming that the data fulfil the requirements for validity of data for calculation of the annual air pollution characteristics
- light grey background – exceedence of air pollution limits LV incl. the condition of the tolerated number of exceedences TE assuming that the data fulfil the requirements for validity of data for calculation of the annual air pollution characteristics

## Organizations

Abbreviation	Organization
ČEZ	ČEZ Inc.
ČGS	Czech Geological Survey
ČHMÚ / CHMI	Czech Hydrometeorological Institute
EKX	Ekotoxa
FP	FRANTSCHACH PULP@PAPER, a.s. ŠTĚTÍ
HBÚ AV ČR	Hydrobiological Institute AS CR
IFER	Institute for Forest Ecosystems Research
IMGW	Institute of Meteorology and Water Management, Wroclaw, Poland
LfUG	Landesamt für Umwelt und Geologie Dresden, FRG
MPI	Plzeň City
MÚPa	Municipal Authority of the town Pardubice
MÚTř	Municipal Authority of the town Třinec
OÚŠu	District Authority in Šumperk
PIOS	State Inspectorate for Environmental Protection, Poland
SZÚ	National Health Institute
VÚLHM	Forest Management and Gamekeeping Research Institute
VÚRV	Research Institute of Plant Production
VÚV	Water Management Research Institute T.G.M.
WIOS	Wojewódzki Inspektorat Ochrony Środowiska, Poland
ZÚ	Health Institute

## Measured substances and quantities – air pollution

Abbreviation	Measured substance / quantity
A	anthracene
Ac	acenaphthene
ACET	acetylene
AcI	acenaphthylene
alpha-HCH	alpha-HCH
As	arsenic
BaA	benzo(a)anthracene
BaP	benzo(a)pyrene
BbF	benzo(b)fluoranthene
Be	beryllium
beta-HCH	beta-HCH
BghiPRL	benzo(g,h,i)perylene
BkF	benzo(k)fluoranthene
BZN	benzene
CCl4	tetrachlormethane, carbontetrachlor
Cd	cadmium
CLB	chlorbenzene
CH4	methane
CHEX	cyclohexane
CM	chloromethane
CO	carbon monoxide
COR	coronen
CP	cyclopentane
Cr	chromium
CRY	chrysene
CS2	carbon disulphide
Cu	copper
DBahA	dibenzo(a,h)anthracene
DCLs	sum of dichlorbenzenes
DCM	dichlormethane
delta-HCH	delta-HCH
DMB22	2,2-dimethylbutane
DMB23	2,3-dimethylbutane
EBZN	ethylbenzene
ETAN	ethane
ETEN	ethene
F11	Freon 11
F113	Freon 113
F12	Freon 12
Fe	iron
FEN	phenanthrene
F1	fluorene
FLU	fluoranthene
gamma-HCH	gamma-HCH
GLRD	global radiation
h	relative air humidity
H2S	hydrogen sulfide
HCB	hexachlorbenzene
HCH	hexachlorcyclohexane
Hg	mercury
I OKT	i-octane
I123cdP	ideno(1,2,3,-cd)pyrene
IBUT	i-butane
IPEN	i-pentane
ISOP	isoprene
MCPT	methyl cyclopentane
MH23	2+3 methylhexane
MHP23	2+3 methylheptane
Mn	manganese

Abbreviation	Measured substance / quantity
MP23	2+3 methylpentane
MPXY	m,p-xylene
MXY	m-xylene
N	naphtalene
N OKT	n-octane
NBUT	n-butane
NH3	ammonia
NHEP	n-heptane
NHEX	n-hexane
Ni	nickel
NO	nitrogen monoxide
NO2	nitrogen dioxide
NONN	nonane
NOx	nitrogen oxides
NPEN	n-pentane
O3	ozone
OXY	o-xylene
p	atmospheric pressure
PAHs	polycyclic aromatic hydrocarbons - sum
PAHs_TEQ	toxic equivalent of sum PAHs
Pb	lead
Pb207/206	isotopic ratio 207Pb/206Pb
Pb208/206	isotopic ratio 208Pb/206Pb
PCB28	PCB28
PCB52	PCB52
PCB101	PCB101
PCB118	PCB118
PCB138	PCB138
PCB153	PCB153
PCB180	PCB180
PCBs	polychlorinated biphenyls - sum
PeCB	pentachlorbenzene
PM10	PM10
PM2,5	PM 2.5
pp-DDD	p,p'-DDD
pp-DDE	p,p'-DDE
pp-DDT	p,p'-DDT
PRPA	propane
PRPE	propene
PXY	p-xylene
PYR	pyrene
RAIN	precipitation amount
SBUT	sum of butene
Sb	antimony
Se	selenium
SO2	sulphur dioxide
SO4	sulphate particles
SNH4	sum of ammonium ions
SNO3	sum of nitrate ions
SPM	suspended particulate matter
SPTN	sum of pentene
STYR	styrene
T	temperature (unspecified)
T10m	temperature 10 m above terrain
T2m	temperature 2 m above terrain
TCE	trichlorethane
TCL	trichlormethane
TCM	trichlorethylene
TECE	tetrachlorethylene
TLN	toluene
TMBs	sum of trimethylbenzenes

<b>Abbreviation</b>	<b>Measured substance / quantity</b>
V	vanadium
WD	wind direction
WROSE	wind rose
WV	wind velocity
XYs	sum of xylenes
Zn	zinc

**Measured substances and quantities – chemical composition of precipitation and atmospheric deposition**

<b>Abbreviation</b>	<b>Measured substance / quantity</b>
Al	aluminium particles
As	arsenic ion
Ca	calcium particles
Cd	cadmium particles
Cl	chlorine particles
cond	conductivity
Cu	copper ion
F	fluorine particles
Fe	iron particles
K	potassium particles
Mg	magnesium particles
Mn	manganese particles
Na	sodium particles
NH <sub>4</sub>	ammonium particles
Ni	nickel particles
NO <sub>3</sub>	nitrate - particles
N-ox	nitrite from NO <sub>2</sub> , NO <sub>3</sub>
Pb	lead particles
pH	pH
P-sum	phosphorus sum
rain	precipitation amount (rain am.)
SO <sub>4</sub>	sulphate - particles
Zn	zinc particles

## Measuring methods – air pollution

Abbreviation	Method
AAS	atomic absorption spectrometry
AFS	low-temperature gas atomic fluorescence spectrometry
APRESS	atmospheric pressure measurement
BERTH	Berthelot method - spectrophotometry
CAP	capacitance sensor
CLM	coulometry
ELMAG	electromagnetic method
FUCEL	el. fuel cell
GCH-FID	gas chromatography - flame-ionization detection
GCH-MS	gas chromatography - mass spectroscopy (for PAH)
GCH-PID	gas chromatography - photo-ionization detection
GCH-VOC	gas chromatography - volatile org. compounds
GRV	gravimetry
GUAJA	guajacol (modif. Jakobs-Hochheiser) method - spectrophotometry
HAIR	hair hygrometer
HPLC	high performance liquid chromatography
CHLM	chemiluminescence
IC	ion chromatography
ICP-AES	inductively coupled plasma - atomic emission spectrometry
ICP-MS	inductively coupled plasma - mass spectrometry
IRABS	IR correl. absorption spectrometry
OPEL	optoelectronic method
PD	passive sampler
PT100	resistance method
PUF-GCH	PUF - gas chromatography
QUARTZ-GCH	QUARTZ - gas chromatography
RADIO	radiometry - beta ray absorption
RAIN	standard rain gauge
SKIN	animal skin
TDM	temperature difference method
TEOM	tapered element oscillating microbalance (TEOM)
TLAM	triethanolamine spectrophotometry
U-SONIC	ultrasonic anemometer
UVABS	UV-absorption
UVFL	UV-fluorescence
WGAE	spectrophotometry with TCM and fuchsin (West-Gaeke)
XRF	X-ray fluorescence

**Measuring methods – chemical composition of precipitation**

<b>Abbreviation</b>	<b>Method</b>
AAS	atomic absorption spectrometry
FAAS	flame atomic absorption spectrometry
GF AAS	graphite furnace atomic absorption spectrometry
HPLC	high performance liquid chromatography
IC	ion chromatography
ICP-OES	inductively coupled plasma- optical emission spectroscopy
ISE	ion selective electrode
KOLT	thiocyanate colorimetric method
KOLV	pyrocatechol violet colorimetric method
ODMV	graduated cylinder
pH metr	pH meter
PTELDA	conductometry (platinum electrode)
RAIN	by weight
SFA	spectrophotometry
TITRACE	TITRACE
WGAE	West-Gaeke spectrophotometry

**Measurement intervals – air pollution**

<b>Abbreviation</b>	<b>Description</b>
10min / 10min	measured 10-min. concentration
10min/ 4d	10-minute sample once in 4 days
14d / 14d	measured 14-day concentration
14d / 1M	measured 14-day concentration once in a month
1d / 1d	measured average daily concentration
1d / 2d	24-h sample once in 2 days
1d / 3d	24-h sample once in 3 days
1d / 5d	24-h sample once in 5 days
1d / 6d	24-h sample once in 6 days
1d / 7d	24-h sample once in 7 days
1h / 1h	1h / 1h
30 min / 30min	measured half-hour concentration
7d / 1M	measured weekly concentration once in a month
7d / 7d	measured 7-day concentration

**Measurement intervals – chemical composition of precipitation and atmospheric deposition**

<b>Abbreviation</b>	<b>Description</b>
irregular	irregular samples
1M	monthly samples
7d	weekly samples
1d	daily samples

## Other abbreviations

Abbreviation	Description
4MV, 19MV, 25MV, 36MV	4 <sup>th</sup> , 19 <sup>th</sup> , 25 <sup>th</sup> , 36 <sup>th</sup> highest value in a calendar year for the given time interval
50%kv	50 <sup>th</sup> percentile
90%kv	90 <sup>th</sup> percentile
95%kv	95 <sup>th</sup> percentile
98%kv	98 <sup>th</sup> percentile
99.9%kv	99.9 <sup>th</sup> percentile
AIM	automated air pollution monitoring
AMS	automated monitoring station
C1q, C2q, C3q, C4q	number of values from which the arithmetic average is calculated for the given quarter
cond	measured sample conductivity
č.p.	absolute frequency of exceedence of IH <sub>d</sub>
č.p.%	relative frequency of exceedence of IH <sub>d</sub>
DAT.	date of occurrence of MAX.
dv	length of the longest continuous failure
EKO zóna/zone	Protected areas with regard to the limit values for the protection of ecosystems and vegetation: Territories in which the Governmental Regulation requires meeting the limit values for the protection of ecosystems and vegetation: a) national parks (NP) and protected landscapes (CHKO) b) territories with the altitude ≥ 800 meters c) other selected forested areas published in the Bulletin of the Ministry of the Environment
KMPL	code of measuring programme in the given locality
LV	limit value
MAX.	hourly, 8-hour or daily maximum for the year
MAX8h	daily maximum for the year for ozone in the time period 9:00 – 17:00 UTC
mc	monthly measurement frequency
MP	measuring programme
MT	margin of tolerance
N	number of measurements in the year
pLV	number of LV exceedences
pMT, pLV+MT	number of LV+MT exceedences
úhrn/rain	precipitation amount measured by the standard method directly at the sampling site or at a station that can be meteorologically considered to be representative for the given site
S	standard deviation
SG	standard geometric deviation
SRS	information, alert and control system
TE	tolerated number of exceedences
VoL	number of LV exceedences
VoM	number of LV+MT exceedences
X	annual arithmetic average
X1q, X2q, X3q, X4q	quarterly arithmetic average
XG	annual geometric average
Xm	monthly arithmetic average