List of abbreviations and explanatory notes

Tabular part of air pollution characteristics

Tables:

Summary overviews of limit values exceedances according to Clean Air Act No. 201/2012 Coll. and max. values at stations of the Czech Republic in 2012

bold – exceedance of air pollution limits LV (the condition of the tolerated number of exceedances 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 – exceedance of air pollution limits LV incl. the condition of the tolerated number of exceedances TE assuming that the data fulfil the requirements for validity of data for calculation of the annual air pollution characteristics

Stations that have insufficient valid data pursuant to the valid legislation (Decree No. 330/2012 Coll., nevertheless the number of valid data meets the criteria applied in the previous years (the number of stations meeting the condition NSV <= 40 days and MP >= 66 %, where NSV – the longest lasting continuous failure in the given year, MP – minimum percentage of measurements in the given year) given for continuity reasons at the end of the table.

Organizations

Abbreviation	Organization
ČESRAF	Czech Refining Company a.s., Litvinov
ČEZ	ČEZ Inc.
ČGS	Czech Geological Survey
ČHMÚ / CHMI	Czech Hydrometeorological Institute
ČHMÚ,MSK	Part-owners - Czech Hydrometeorological Institute, Moravskoslezky kraj
FP	FRANTSCHACH PULP@PAPER, a.s. ŠTĚTÍ
GLÚ AV ČR (IG ASCR)	Institute of Geology of the Academy of Sciences of the Czech Republic
HBÚ AV ČR (IHB ASCR)	Hydrobiological Institute of the Academy of Sciences of the Czech Republic
HEL Cheb	Hygienic and ecological laboratories Cheb
IMGW	Institute of Meteorology and Water Management, Wroclaw, Poland
KRNAP	Administration of KRNAP
LfULG	State Authority for the Environment and Geology, Dresden,FRG
MOLO	City of Olomouc
MPl	City of Plzeň
MŠUM	City of Šumperk
MÚPa	Municipal Authority in Pardubice
MÚTř	Municipal Authority in Třinec
MVM	City of Valašské Meziříčí
MZLI	City of Zlín
PIOS	State Inspectorate for Environmental Protection, Poland
SCHKO Z.h.	Administration of Zelezne hory protected landscape area
SMBrno	Statutory City of Brno
SMPce,ČHMÚ	Part-owners - Statutory City ofPardubice, Czech Hydrometeorological Institute
SŠZE Žatec	Secondary school of agriculture and kology in Zatec
SZÚ (NIPH)	National Health Institute
ÚH AV ČR	Institute of Hydrodynamics AS CR
VČs	Vapenka Certovy schody, a.s
VÚLHM (FGMRI)	Forest Management and Gamekeeping Research Institute
VÚV	Water Management Research Institute T.G.M.
WIOS	Wojewódzki Inspektorat Ochrony Środowiska, Poland
ZÚ	Health Institute
ZÚ Praha	Health Institute Praha
ZÚ Ústí n.L.	Health Institute Ústí nad Labem
ZÚ, SMOva	Part-owners - Health Institute and Statutory City of Ostrava

Measured substances and quantities – air pollution

Abbreviation	Measured substance / quantity
A	anthracene
AC	acenaphthene
ACET	acetylene
ACL	acenaphthylene
alpha_HCH	alpha-HCH
As	arsenic
BaA	benzo(a)anthracene
BaP	benzo(a)pyrene
BbF	benzo(b)fluoranthene
Be	beryllium
BeP	benzo(e)pyren
beta_HCH	beta-HCH
BghiPRL	benzo(g,h,i) perylene
BjF	benzo(j)fluoranthene
BkF	benzo(k)fluoranthene
BZN	Benzene
Ca(2+)	calcium ions
Cd	cadmium
Co	carbon monoxide
COR	coronen
CP	cyclopentane
Cr	chromium
Cu	copper
DBahA	dibenzo(a,h)anthracene
delta_HCH	delta-HCH
DMB22	2,2-dimethylbutane
DMB23	2,3 dimethylbutane
EBZN	ethylbenzene
EC	elemental carbon
ETAN	ethane
ETEN	ethene
F0025	particles 0.25-0.28
F0028	particles 0.28-0.30
F0030	particles 0.30-0.35
F0035	particles 0.35-0.40
F0040	particles 0.40-0.45
F0045	particles 0.45-0.50
F0050	particles 0.50-0.58
F0058	particles 0.58-0.65
F0065	particles 0.65-0.70
F0070	particles 0.70-0.80
F0080	particles 0.80-1.00
F0100	particles 1.00-1.30
F0130	particles 1.30-1.60
F0160	particles 1.60-2.00
F0200	particles 2.00-2.50
F0250	particles 2.50-2.70
F0270	particles 2.70-3.00
F0300	particles 3.00-3.50
F0350	particles 3.50-4.00

Abbreviation	Measured substance / quantity
F0400	particles 4.00-5.00
F0500	particles 5.00-6.50
F0650	particles 6.50-7.50
F0750	particles 7.50-8.50
F0850	particles 8.50-10.00
F1000	particles 10.00-12.50
F1250	particles 12.50-15.00
F1500	particles 15.00-17.50
F1750	particles 17.50-20.00
F2000	particles 20.00-25.00
F2500	particles 25.00-30.00
F3000	particles 30.00-32.00
F3200	particles >32.00
Fe	iron
Fen	phenanthrene
Fl	fluorene
Flu	fluoranthene
gamma_HCH	gamma-HCH
GLRD	global radiation
h	relative air humidity (h. of air)
H2S	(sulphuretted hydrogen) hydrogen sulphide
HCB	hexachlorbenzene
Hg	mercury
Hg0	gaseous mercury
HCH	hexachlorcyclohexane
CHEX	cyclohexane
Chry	chrysene
I_OKT	i-octane
I123cdP	indeno(1,2,3,-cd) pyrene
IBUT	i-butane
IPEN	i-pentane
ISOP	isoprene
K(+)	potassium ions
MCPT	methyl cyclopentane
METAN	methane
Mg(2+)	magnesium ions
MH23	2+3 methylhexane
MHP23	2+3 methylheptane
Mn	manganese
MP23	2+3 methylpentane
MPXY	m,p-xylene
MXY	m-xylene
N	naphtalene
N_OKT	n-octane
Na(+)	sodium ions
NBUT	n-butane
NBV-in	number of passing big vehicles - to the centre
NBV-out	number of passing big vehicles - from

Abbreviation	Measured substance / quantity
	the centre
NBV-s	number of passing big vehicles - both directions
NEBV-in	number of passing extra big vehicles - to the centre
NEBV-out	number of passing extra big vehicles - from the centre
NH3	ammonia
NHEP	n-heptane
NHEX	n- hexane
Ni	nickel
NMV-in	number of passing middle-sized vehicles - to the centre
NMV-out	number of passing middle-sized vehicles - from the centre
NMV-s	number of passing middle-sized vehicles - both directions
NO	nitrogen monoxide
NO2	nitrogen dioxide
NONN	nonane
NOx	nitrogen oxides
NPEN	n-pentane
NSV-in	number of passing small vehicles - to the centre
NSV-out	number of passing small vehicles - from the centre
NSV-s	number of passing small vehicles - both directions
O3	ozone
OC	organic carbon
OXY	o-xylene
p	phosphorus
PAHs	polycyclic aromatic hydreocarbons -
PAHs_TEQ	toxic equivalent of sum PAHs
Pb	lead
PCB101	PCB101
PCB118	PCB118
PCB138	PCB138
PCB153	PCB153
PCB180	PCB180
PCB28	PCB28
PCB52	PCB52
PCBs	polychlorinated biphenyls - sum
PeCB	pentachlorbenzene
PM1	fine particles PM1

Abbreviation	Measured substance / quantity
PM10	particles PM10
PM2,5	fine particles PM2.5
pp_DDD	p,p'-DDD
pp_DDE	p,p'-DDE
pp_DDT	p,p'-DDT
PRPA	propane
PRPE	propene
PXY	p-xylene
Pyr	pyrene
RAD_A	RAD_A
RAD_B	RAD_B
RAD_C	RAD_C
RAIN	precipitation amount (rain am.)
SBUT	sum of butene
Se	selenium
SNH4	sum of ammonium ions
SNO3	sum of nitrate ions
SO2	sulphur dioxide
SO4(2-)	sulphate - particles
SPM	suspended particulate matter
SPTN	sum of pentene
STYR	styrene
T	temperature (unspecificated)
T10m	temperature 10m above terrain
T2m	temperature 2m above terrain
TLN	toluene
UVB	ultraviolet radiation - medium wave
V	vanadium
WD	wind direction
WDm	short-term wind direction maximum
WV	wind velocity
WVm	short-term wind velocity maximum
XYs	sum of xylens
Zn	zinc

Measured substances and quantities – chemical composition of atmospheric precipitation

Abbreviation	Measured substance / quantity
A	anthracene
Ac	acenaphthene
Acl	acenaphthylene
Al	aluminium
alk.	alkalinity
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
Ca	calcium
Ca(2+)	calcium ions
Cd	cadmium
Cl(-)	chloride ions
Co	cobalt
cond	conductivity
Cr	chromium
CRY	chrysene
Cu	copper
DBahA	dibenzo(a,h)anthracene
delta_HCH	delta-HCH
DOC	Dissolved organic carbon
F(-)	fluoride ions
Fe	iron
FEN	phenanthrene
Fl	fluorene
FLU	fluoranthene
gamma_HCH	gamma-HCH
HCB	hexachlorbenzene
HCO3(-)	hydrogen carbonate ions
Hg	mercury
I123cdP	ideno(1,2,3,-cd) pyrene
iont.bil.	ion balance
K	potassium
K(+)	potassium ions
Li	lithium
Mg	magnesium
Mg(2+)	magnesium ions
Mn	manganese
N	naphtalene

Abbreviation	Measured substance / quantity
Na	sodium
Na(+)	sodium ions
NH4(+)	ammonium ions
Ni	nickel
N-NH4(+)	nitrogen from NH4(+)
N-NO3(-)	nitrogen from NO3(-)
NO2(-)	nitrite ions
NO3(-)	nitrate ions
N-ox	sum nitrogen from NO2(-) and NO3(-)
N-sum	total nitrogen
o-PO4(3-)	orto-phosphate
P_PO4	phosphates expressed as a phosphorus
Pb	lead
PCB101	PCB101
PCB118	PCB118
PCB138	PCB138
PCB153	PCB153
PCB180	PCB180
PCB28	PCB28
PCB52	PCB52
pH	pH
pp_DDD	p,p'-DDD
pp_DDE	p,p'-DDE
pp_DDT	p,p'-DDT
pr	flow
priv	flood
P-sum	total phosphorus
PYR	pyrene
rain	precipitation amount
Se	selenium
SO4(2-)	sulphate - ions
Sr	strontium
TOC	total organic carbon
V	vanadium
voddif	difference of conductivities
Zn	zinc

Measuring methods – air pollution

Abbreviation	Method
AAS	atomic absorption spectrometry
AFS	low-temperature gas atomic fluorescence spectrometry
AMA	Atomic absorption spectrofotometry AMA for mercury determination
APRESS	atmospheric pressure measurement
CAP	capacitance sensor
ELMAG	electromagnetic method
FIA-BERTH	Spectrophotometry,flow injection analysis FIA with indophenol,Berthelot reaction
GC-FID	gas chromatography - flame-ionization detection
GC-MS	gas chromatography - mass spectroscopy (for PAH)
GC-MS/PUF	gas chromatography - mass spectroscopy (only PUF)
GC-MS/QUA	gas chromatography - mass spectroscopy (only QUARTZ)
GC-PID	gas chromatography - photo-ionization detection
GC-VOC	gas chromatography - volatile org. compounds
GRV	gravimetry
GUAJA	guajacol (modif. Jakobs-Hochheiser) - spectrophotometry
HAIR	hair hygrometer
HD_FID	Heat decomposition_FID
HPLC	high pressure liquid chromatography
CHLM	chemiluminescence
IC	ion chromatography
ICP-AES	inductively coupled plasma - atomic emission spectrometry
ICP-MS	inductively coupled plasma - mass spectrometry
IRABS	IR corel. absorption spectrometry
MSZ	microwave sensor
OPEL	optoelectronic method
OPTO-RADIO	opto-radiometric method
PD	passive sampler
PT100	resistance method
RAD	dosimeter
RADIO	radiometry - beta ray absorption
RAIN	standard rain gauge
TDM	temperature difference method
TEOM	tapered element oscillating microbalance (TEOM)
TLAM	triethanolamine spectophotometry
U-SONIC	ultrasonic anemometer
UVABS	UV-absorption
UVFL	UV-fluorescence
WGAE	West-Gaeke spectrophotometry
XRF	X-ray fluorescence

Measuring methods – chemical composition of atmospheric precipitation

Abbreviation	Method
AAS	atomic absorption spectrometry
CLD	chemiluminescence detection
EC metr	EC metry
FAAS	flame atomic absorption apectrometry
FIA	flow analysis and spectrometric detection
FIA-BERTH	Spectrophotometry,flow injection analysis FIA with indophenol,Berthelot reaction
GF-AAS	graphite furnace atomic absorption spectrometry
GCH-MS	Gas chrometography-mass spectroscopy
Gran	Gran titration
HPLC	high performance liquid chromatography
IC	ion chromatography
ICP-MS	inductively coupled plasma - mass spectrometry
ICP-OES	inductively coupled plasma - optical emission spectroscopy
ISE	ion selective electrode
KOLAM	ammonium molybdate colorimetric method
KOLT	thiocyanate colorimetric method
KOLV	pyrokatechol violet colorimetry
NDIR	nondispersive infrared absorption
PDSM-CHLM	oxidative digestion with peroxodisulfate
pH metr	pH meter
PMT	photometry
SFA	spectrophotometry
TITRACE	TITRACE
TOC	Total organic carbon analyzer (shimadzu TOC-5000A)
TOC/TN	TOC/TN analysator
VA	voltamperometry
VOL	volumetric metod

Measurement intervals – air pollution

Abbreviation	Description
10min / 10min	measured 10-min. concentration
30 min / 30min	measured half-hour concentration
1h / 1h	measured average hourly concentration
10min/ 4d	10-minute sample once in 4 days
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 / 4d	24-h sample once in 4 days
1d / 6d	24-h sample once in 6 days
1d / 7d	24-h sample once in 7 days
7d / 7d	measured 7-day concentration
14d / 14d	measured 14-day concentration
1M / 1M	measured monthly concentration

Measurement intervals – chemical composition of atmospheric precipitation

Abbreviation	Description
irregular	irregular samples
1M	monthly samples
7d	weekly samples
1d	daily samples

Other abbreviations

Abbreviation	Description
4MV, 19MV, 25MV, 36MV	4^{th}, 19^{th}, 25^{th}, 36^{th} highest value in a calendar year for the given time interval
50%kv	50^{th} percentile
90%kv	90^{th} percentile
95%kv	95^{th} percentile
98%kv	98^{th} percentile
99.9%kv	99.9^{th} 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 exceedance of IH_d
č.p.%	relative frequency of exceedance of IH_d
DAT.	date of occurrence of MAX.
dv	length of the longest continuous failure
h. s.	hot-spot station
KMPL	code of measuring programme in the given locality
LV	limit value
MAX.	hourly, 8-hour or daily maximum for the year
MAX8h	maximum daily 8-hour running average for the year
mc	monthly measurement frequency
MP	measuring programme
MSK	Moravian-Silesian Region
MT	margin of tolerance
N	number of measurements in the year
PA	alert threshold
PD	passive sampler
PI	information threshold
pLV	number of LV exceedances
pMT, pLV+MT	number of LV+MT exceedances
ppLV	average number of exceedances
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 exceedances
TK, HM	heavy metals
VoL	number of LV exceedances
VoM	number of LV+MT exceedances
X	annual arithmetic average
X1q, X2q, X3q, X4q	quarterly arithmetic average
XG	annual geometric average
Xm	monthly arithmetic average