

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 2016

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

Organizations

Abbreviation	Organization
Amt der NÖ	Amt der NÖ Landesregierung Abteilung BD4
AOL	Amt der Oberösterreichischen Landesregierung
Českomorav	Ceskomoravsky cement a.s.
ČEZ	ČEZ, a.s.
ČGS	Czech Geological Survey
ČHMÚ	Czech Hydrometeorological Institute
ČHMÚ,MSK	Czech Hydrometeorological Institute, Moravskoslezsky kraj
DWIOS	Dolnoslaski Wojewodzki Inspektorat Ochrony Srodowiska
GIOS	Główny Inspektorat Ochrony Środowiska
GLÚ AV ČR	Institute of Geology of the Academy of Sciences of the Czech Republic
HBÚ AV ČR	Hydrobiological Institute of the Academy of Sciences of the Czech Republic
HEL Cheb	Hygienic and ecological laboratories Cheb
LfULG	State Authority for the Environment and Geology, Dresden,FRG
MOTRO	City of Otrokovice
MPI	City of Plzen
MTR	City of Trinec
MWIOS	Malopolski Wojewodzki Inspektorat Ochrony Srodowiska
OWIOS	Opolski Wojewodzki Inspektorat Ochrony Srodowiska
Sev. en EC	Severni energeticka a.s.
SCHKO Z.h.	Administration of Zelezne hory protected landscape area
SMBрно	Statutory City of Brno
SWIOS	Slaski Wojewodzki Inspektoraów Ochrony Srodowiska
ÚH AV ČR	Institute of Hydrodynamics AS CR
UVGZ AV ČR	Global Change Research Institute AS CR, v.v.i.
VČs	Vapenka Certovy schody, a.s.
VÚLHM	Forest Management and Gamekeeping Research Institute
ZÚ Ústí nL	Health Institute Usti n/L
ZÚ, MSK	ZU, MSK
ZÚ, SMOva	ZU, Statutory City of Ostrava
ZÚ-Ostrava	Health Institute Ostrava
ZÚÚstí/SZÚ	Health Institute Usti n/LNational Health Institute

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
BC	black carbon
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
Cl(-)	chloride ions
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
F_010_020	particles 10-20 nm
F_020_030	particles 20-30 nm
F_030_050	particles 10-20 nm
F_050_070	particles 50-70 nm
F_070_100	particles 70-100 nm
F_100_200	particles 100-200 nm
F_200_800	particles 200-800 nm
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

Abbreviation	Measured substance / quantity
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
F0300	particles 3.00-3.50
F0350	particles 3.50-4.00
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
FID00172	Particle number concentration - size channel from 172 to 184 nm
FID00184	Particle number concentration - size channel from 184 to 198 nm
FID00198	Particle number concentration - size channel from 198 to 213 nm
FID00213	Particle number concentration - size channel from 213 to 229 nm
FID00229	Particle number concentration - size channel from 229 to 246 nm
FID00246	Particle number concentration - size channel from 246 to 264 nm
FID00264	Particle number concentration - size channel from 264 to 284 nm
FID00284	Particle number concentration - size channel from 284 to 305 nm
FID00305	Particle number concentration - size channel from 305 to 328 nm
FID00328	Particle number concentration - size channel from 328 to 352 nm
FID00352	Particle number concentration - size channel from 352 to 379 nm
FID00379	Particle number concentration - size channel from 379 to 407 nm
FID00407	Particle number concentration - size channel from 407 to 437 nm
FID00437	Particle number concentration - size channel from 437 to 470 nm
FID00470	Particle number concentration - size channel from 470 to 505 nm
FID00505	Particle number concentration - size channel from 505 to 543 nm
FID00543	Particle number concentration - size channel from 543 to 583 nm
FID00583	Particle number concentration - size channel from 583 to 627 nm
FID00627	Particle number concentration - size channel from 627 to 674 nm
FID00674	Particle number concentration - size channel from 674 to 724 nm
FID00724	Particle number concentration - size channel from 724 to 778 nm
FID00778	Particle number concentration - size channel from 778 to 836 nm
FID00836	Particle number concentration - size channel from 836 to 898 nm

Abbreviation	Measured substance / quantity
FID00898	Particle number concentration - size channel from 898 to 965 nm
FID00965	Particle number concentration - size channel from 965 to 1037 nm
FID01037	Particle number concentration - size channel from 1037 to 1198 nm
FID01198	Particle number concentration - size channel from 1198 to 1383 nm
FID01383	Particle number concentration - size channel from 1383 to 1486 nm
FID01486	Particle number concentration - size channel from 1486 to 1597 nm
FID01597	Particle number concentration - size channel from 1597 to 1717 nm
FID01717	Particle number concentration - size channel from 1717 to 1845 nm
FID01845	Particle number concentration - size channel from 1845 to 1982 nm
FID01982	Particle number concentration - size channel from 1982 to 2130 nm
FID02130	Particle number concentration - size channel from 2130 to 2289 nm
FID02289	Particle number concentration - size channel from 2289 to 2460 nm
FID02460	Particle number concentration - size channel from 2460 to 2643 nm
FID02643	Particle number concentration - size channel from 2643 to 2841 nm
FID02841	Particle number concentration - size channel from 2841 to 3053 nm
FID03053	Particle number concentration - size channel from 3053 to 3280 nm
FID03280	Particle number concentration - size channel from 3280 to 3525 nm
FID03525	Particle number concentration - size channel from 3525 to 3788 nm
FID03788	Particle number concentration - size channel from 3788 to 4071 nm
FID04071	Particle number concentration - size channel from 4071 to 4374 nm
FID04374	Particle number concentration - size channel from 4374 to 4701 nm
FID04701	Particle number concentration - size channel from 4701 to 5051 nm
FID05051	Particle number concentration - size channel from 5051 to 5833 nm
FID05833	Particle number concentration - size channel from 5833 to 6268 nm
FID06268	Particle number concentration - size channel from 6268 to 6736 nm
FID06736	Particle number concentration - size channel from 6736 to 7239 nm
FID07239	Particle number concentration - size channel from 7239 to 7779 nm
FID07779	Particle number concentration - size channel from 7779 to 8359 nm
FID08359	Particle number concentration - size channel from 8359 to 8983 nm
FID08983	Particle number concentration - size channel from 8983 to 9653 nm
FID09653	Particle number concentration - size channel from 9653 to 10373 nm
FID10373	Particle number concentration - size channel from 10373 to 11147 nm
FID11147	Particle number concentration - size channel from 11147 to 11979 nm
FID11979	Particle number concentration - size channel from 11979 to 12872 nm
FID12872	Particle number concentration - size channel from 12872 to 13833 nm
FID13833	Particle number concentration - size channel from 13833 to 14865 nm
FID14865	Particle number concentration - size channel from 14865 to 15974 nm
FID15974	Particle number concentration - size channel from 15974 to 17165 nm
FID17165	Particle number concentration - size channel above 17165 nm
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
HCH	hexachlorcyclohexane

Abbreviation	Measured substance / quantity
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
Mo	molybdenum
MP23	2+3 methylpentane
MPXY	m,p-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 the centre
NEBV-in	number of passing extra big vehicles - to the centre
NEBV-out	number of passing extra big vehicles - from the centre
NH4(+)	ammonium ions
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
NO	nitrogen monoxide
NO2	nitrogen dioxide
NO3(-)	nitrate ions
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
O3	ozone
O3_230m	ozone 230m above terrain
O3_50m	ozone 50m above terrain
O3_8m	ozone 8m above terrain
OC	organic carbon
OXY	o-xylene
P	atmospheric pressure
PAHs	polycyclic aromatic hydrocarbons -
PAHs_TEQ	toxic equivalent of sum PAHs

Abbreviation	Measured substance / quantity
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
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
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 (unspecifcated)
T10m	temperature 10m above terrain
T2m	temperature 2m above terrain
TLN	toluene
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
AcI	acenaphthylene
Al	aluminium
alk.	alkalinity
alpha_HCH	alpha-HCH
As	arsenic
BaA	benzo(a)anthracene
BaP	benzo(a)pyrene
BbF	benzo(b)fluoranthene
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
DN	dissolved nitrogen
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
Na	sodium
Na(+)	sodium ions
NH4(+)	ammonium ions

Abbreviation	Measured substance / quantity
Ni	nickel
N-NH4(+)	nitrogen from NH4(+)
NO3(-)	nitrate ions
N-ox	sum nitrogen from NO2(-) and NO3(-)
N-sum	total nitrogen
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
APRESS	atmospheric pressure measurement
ATN	optical attenuation
CAP	capacitance sensor
CHLM	chemiluminescence
CLM	coulometry
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/Q+P	gas chromatography - mass spectroscopy (sum of PUF, QUARTZ)
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
HAIR	hair hygrometer
HD_FID	Heat decomposition_FID
HPLC	high pressure liquid chromatography
IC	ion chromatography
ICP-AES	inductively coupled plasma - atomic emission spectrometry
ICP-MS	inductively coupled plasma - mass spectrometry
ICP-OES	inductively coupled plasma - optical emission spectrometry
IRABS	IR corel. absorption spectrometry
MAAP	multiangle absorption fotometry
MSZ	microwave sensor
OPEL	optoelectronic method
OPTO-RADIO	opto-radiometric method
PT100	resistance method
RAD	dosimeter
RADIO	radiometry - beta ray absorption
RAIN	standard rain gauge
SMPS	Scaning Mobility Particle Sizer
TDM	temperature difference method
TEOM	tapered element oscillating microbalance (TEOM)
TLAM	triethanolamine spectrophotometry
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
pH metr	pH meter
PMT	photometry
SFA	spectrophotometry
TITRACE	TITRACE
TOC	Total organic carbon analyzer (shimadzu TOC-5000A)
TOC/TN	TOC/TN analysator
VOL	volumetric metod
W-HG-AFSEFX	fluoride spectrometry-Hg

Measurement intervals – air pollution

Abbreviation	Description
1min / 1min	measured 1-min concentration
5min / 5min	measured 5-min. concentration
10min / 10min	measured 10-min. concentration
1h / 1h	measured hourly concentration
4h / 4h	measured 4-hour 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
1d / 1M	measured 24-hour concentration once in 1 month
7d / 7d	measured 7-day concentration
14d / 14d	measured 14-day 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
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