

**The Appendix is an integral part of
Certificate of Accreditation No. 218/2022 of 09/05/2022**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

TECHNICKÉ SLUŽBY OCHRANY OVZDUŠÍ OSTRAVA spol. s r.o.
Emission Measurement Testing Laboratory
Janáčkova 1020/7, Moravská Ostrava, 702 00 Ostrava

Tests:

| Ordinal number ¹ | Test procedure/ method name | Test procedure/ method identification ² | Tested object |
|-----------------------------|---|---|---------------|
| 1 | Determination of mass concentration of solid pollutants by gravimetry | SOP II except chap. 5 and 6 (ČSN EN 13284-1) | Emissions |
| 2 | Determination of mass concentration of metals by calculation from measured values ³ (As, Cd, Be, Cr, Co, Ni, Tl, Se, Te, Sb, Sn, Mn, Cu, Pb, V, Zn, Al, Hg) | SOP II except chap. 4 and 5 (ČSN EN 14385, ČSN EN 13211) | Emissions |
| 3 | Determination of mass concentration of persistent organic compounds by calculation from measured values ³ (PCDD/PCDF, PCB, PAH) | SOP II except chap. 4 and 6 (ČSN EN 1948-3, ČSN EN 1948-4+A1) | Emissions |
| 4 | Determination of mass concentration of gases and vapours by absorption into liquid and calculation from measured values ³ (HCl) (HF) (SO ₂) | SOP 15 (ČSN EN 1911, ČSN P CEN/TS 17340, ČSN EN 14 791) | Emissions |
| 5 | Determination of mass concentration of volatile organic compounds by capture on a solid sorbent by calculation from measured values ³ (VOC) | SOP 16 (ČSN P CEN/TS 13649) | Emissions |
| 6* | Determination of mass concentration of gaseous substances (SO ₂ , CO, NO _x , CH ₄ , CO ₂) by automatic analyzers (NDIR method) | SOP I except chap. 2b, 2c and 2d (ISO 10 396) (ČSN ISO 7935) (ČSN EN 15058) (ČSN ISO 10849) Manual Siemens) ČSN P CEN/TS 17405) | Emissions |

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| Ordinal number ¹ | Test procedure/ method name | Test procedure/ method identification ² | Tested object |
|-----------------------------|---|--|---|
| 7* | Determination of mass concentration of organic compounds expressed as TOC by an automatic analyzer (FID) | SOP I except chap.2a, 2b and 2d (ISO 10 396, ČSN EN 12619) | Emissions |
| 8* | Determination of mass concentration of oxygen (O ₂) by an automatic analyzer (paramagnetic method) | SOP I except chap. 2a, 2c and 2d (ISO 10 396, ČSN EN 14789) | Emissions |
| 9* | Determination of velocity and volume flowrate of gas (Flow Q) | SOP 20 (ČSN ISO 10780) | Emissions |
| 10* | Determination of moisture content of gas streams in ducts by condensation adsorption, adsorption method and capacitance detector (H ₂ O) | SOP 20 (ČSN EN 14790) | Emissions |
| 11* | Determination of mass concentration of hydrogen (H ₂) by an automatic analyzer (TCD method) | SOP I except chap. 2a, 2b, 2c, 2e (ISO 10396, manual Siemens) | Emissions |
| 12 * | Determination of mass concentration of nitrogen oxides (NO _x) by an automatic analyzer (chemiluminescence) | SOP I except chap. 2a, 2b, 2c, 2d (ISO 10396, ČSN EN 14792) | Emissions |
| 13 * | Demonstration of quality of automated measuring systems | SOP III (ČSN EN 1418, p. 6 QAL2, p. 8 AST) | Automated emission measuring systems |
| 14 * | Measurement of noise | SOP 23 (ČSN ISO 1996-1, ČSN ISO 1996-2, ČSN EN ISO 9612, ČSN EN ISO 11201, ČSN EN ISO 11202, MoH CR Bulletin No.11/2017 MoH CR Bulletin No. 4/2013) | Non-workplace and workplace environment |

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- ¹ asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises
- ² if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes)
- ³ The Laboratory subcontracts testing to external accredited testing laboratories

Sampling:

| Ordinal number | Sampling procedure name | Sampling procedure identification ¹ | Sampled object |
|----------------|---|---|----------------|
| 1 | Isokinetic sampling of solid pollutants (manual isokinetic control) | SOP II except chap. 5 and 6 (ČSN EN 13284-1) | Emissions |
| 2 | Isokinetic sampling of metals (manual isokinetic control) (Be, Cd, As, Cr, Co, Ni, Tl, Se, Te, Sb, Sn, , Mn, Cu, Pb, V, Zn, Al,Hg) | SOP II except chap. 4 and 5 (ČSN EN 14385, ČSN EN 13211) | Emissions |
| 3 | Sampling of persistent organic compounds (manual isokinetic control, filtration-condensation method) (PCDD/PCDF, PCB, PAH) | SOP II except chap. 4 and 6 (ČSN EN 1948-1, ČSN EN 1948-4 + A1) | Emissions |
| 4 | Sampling of gases and vapours by absorption in a liquid (HCl, HF, SO ₂) | SOP 15 (ČSN EN 1911, ČSN P CEN/TS 17340, ČSN EN 14791) | Emissions |
| 5 | Sampling of volatile organic compounds by catching on a solid sorbent (VOC) | SOP 16 (ČSN P CEN/TS 13649) | Emissions |

- ¹ if the document identifying the sampling procedure is dated, only these specific procedures are used. If the document identifying the sampling procedure is not dated, the latest edition of the specified procedure is used (including any changes)

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Explanations and abbreviations:

Emission – waste gas containing pollutants, which is released in a controlled manner or leaks into atmosphere from pollution sources.

SOP – Standard Operating Procedure

MoH – Ministry of Health

QAL – Quality Assurance Level

AST – Annual Surveillance Test

TOC – the sum of volatile organic compounds expressed as total organic carbon

VOC – Volatile Organic Compounds

NDIR – Nondispersive Infrared Spectrometry

TCD – Thermal Conductivity Detector

FID – Flame Ionization Detection

PCDD/PCDF – Polychlorinated Dibenzodioxins/Polychlorinated Dibenzofurans

PCB – Polychlorinated Biphenyls

PAH – Polycyclic Aromatic Hydrocarbons

HCl – inorganic chlorine compounds including hydrogen chloride

HF – inorganic fluorine compounds including hydrogen fluoride

SO₂ – sulphur dioxide

CO – carbon monoxide

NO_x – nitrogen oxides (nitrogen oxide and nitrogen dioxide) expressed as nitrogen tetroxide

CO₂ – carbon dioxide

CH₄ – methane

H₂ – hydrogen