HEALTH & SAFETY LABORATORY

LGC

AIR PT – Workplace air, ambient air, indoor/chamber air and stack emissions proficiency scheme

We take air for granted: it is ubiquitous, essential, and life-giving. However, it is easily polluted by our activity and so requires regular monitoring to assess exposures and the effectiveness of containment or ventilation.

Many everyday activities create air pollutants with known or suspected harmful effects on human health and the environment. Such pollution can cause both short and long term effects on human, plant and animal life.

The AIR Proficiency Testing (PT) scheme is a collaboration between LGC and the UK Health and Safety Laboratory (HSL). The AIR PT scheme is run by LGC and is supported by the technical expertise at HSL. The scheme combines HSL's WASP and LGC's STACKS schemes, providing an integrated scheme that is specifically designed for all laboratories undertaking analysis of samples derived from various fields of air monitoring.

Regular monitoring allows information to be collected, in order to review and assess air quality and ensure legislative standard are being met. It also helps to determine the effectiveness of control systems designed to prevent air pollution.

LGC Quality - ISO/IEC17043 • ISO9001

Scheme operation

The AIR PT* scheme year operates from April to March and test materials are despatched six times per annum. Round despatch dates and reporting deadlines are available on the current AIR PT application form, and further information can be found in the AIR PT scheme description. These documents can be downloaded from our website www.lgcstandards.com

Test material	Analytes
Workplace air	**Glass fibre filters** Acetaldehyde, Formaldehyde, Dust analysis (mass of solids) **Membrane filters** Cadmium, Cobalt, Copper, Chromium, Iron, Lead, Manganese, Nickel, Zinc **PVC filters** Respirable grade quartz by FTIR & XRD **PVDF filters** Chromium (VI) **Charcoal sorbent tubes** 1, 1, 1-Trichloroethane, Benzene, Ethyl benzene, n-Butyl acetate, n-Hexane, Tetrachloroethene, Toluene, Trichloroethene, Xylene **Thermal desorption tubes** Benzene, Ethyl benzene, Toluene, Xylene **Welding fume** Cobalt, Copper, Chromium, Iron, Manganese, Nickel, Zinc **Dust** Lead **Metal ore/refinery dust** Cadmium, Cobalt, Copper, Chromium, Iron, Lead, Manganese, Nickel, Zinc
Ambient air	**Quartz fibre filters** Arsenic, Cadmium, Lead, Nickel, Chloride, Nitrate, Sulfate **Diffusion tubes** Nitrogen dioxide (as nitrite) **Thermal desorption tubes** Benzene, Ethyl benzene, Toluene, Xylene (all isomers)
Indoor/Chamber air	**Thermal desorption tubes** 124-TMB, 4-PCH, a-Pinene, Benzene, Butyl acetate, Cyclohexanone, Dodecane, Limonene, Methyl isobutyl ketone (MIBK), n-Hexane, Phenol, p-Xylene, Toluene
Stack emissions	**Impinger solutions*** Ammonia, Hydrogen chloride, Hydrogen fluoride, Mercury, Nitrogen oxides (NO_2), Sulphur dioxide, Volume. Antimony, Arsenic, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Thallium, Vanadium, Volume **Quartz filter** Dust (mass of solids), Fly ash Antimony, Arsenic, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Thallium, Vanadium **Rinsing solution** Dust (total solids)

*Only stack impinger solutions are currently included in our scope of UKAS accreditation, please see application form and scheme description.
LGC is the accredited PT provider of this scheme.

For further Information contact LGC Standards: @LGCStandards

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