

Using our brains to save and improve the lives of workers

# Respiratory Protective Equipment (RPE) Fit Testing



## The Client

Health and Safety Executive

Various NHS Primary Care Trusts

A wide range of clients from industry sectors such as construction, pharmaceuticals, chemicals, utilities, agriculture.

## The Problem

No RPE can provide optimum performance if it leaks, and one of the main sources of leakage is poor fit of a mask to the face of the wearer. As a result of both field and laboratory studies into respirator performance, regulations (such as the Control of Asbestos Regulations), and general HSE guidance on the use of RPE (HSG 53, supporting the Control of Substances Hazardous to Health Regulations) require that fit testing is included as an integral part of an RPE programme for mask-based devices.



## What we did

The best time to conduct fit testing is at the initial selection stage, when individual users should be given a choice of adequate models of RPE. HSL can measure fit using the full range of recognised techniques, from the chamber-based assessments using either particle or gas tracer techniques adapted from European Standards for the certification of RPE, through the quantitative Portacount ambient particle counting method, to the subjective taste-based methods which are only applicable to half masks and filtering facepieces. We have routinely applied these techniques to assist HSE in complying with its own legislation and guidance, by ensuring that individual HSE inspectors are issued with the right model and size of RPE for them. We have assisted numerous other organisations to do the same. In addition, as the technical authors of HSE's specific guidance on fit testing (HSE 282/28), we have provided either general or bespoke training to many organisations and individuals who want to carry out their own fit testing.

## Outcome/Benefits

Clients are one step further towards achieving full compliance with the letter and spirit of the law regarding correct use of RPE. As a consequence, RPE users are more likely to be receiving the optimum level of protection from their RPE, and therefore less likely to suffer ill health as a result of their work.

HSL continues to develop our own practical and technical experience and expertise in this area, feeding directly back into both the evolution of HSE guidance on fit testing, and the competence assessment scheme for fit testers (Fit2Fit) being developed by British Safety Industry Federation.