

Email: contact@winnipegairtesting.com

Measuring Worker Exposure to Welding Fumes

The significance of welding exposures in Manitoba has recently caught the attention of the Safety and Health Profession. Recent reductions in the allowable exposure limits for welding fumes has been a challenge for many workplaces. The Workplace Safety and Health Division is increasing inspections and issuing Improvement Orders for welding fumes.

Winnipeg Air Testing performed a two-year study on welding exposures across Manitoba for the Workers Compensation Board of Manitoba. The focus of the study was not only defining exposures, but also helping companies with cost-effective solutions to control welding exposures. The following information outlines how the tests are taken.

Sampling Procedure

The survey will measure the workers' exposure to airborne metals during normal work operations. Personal monitoring, which provides the most accurate measurement of worker exposure, will be used. A small air sampling device is worn by the workers and collects air from their breathing zones using "in-mask" sampling systems for welders (see image on right). The samples are then analyzed at an AIHAaccredited laboratory.



Report

After sampling, a comprehensive report that details the workers' exposures and compares the results to current standards for occupational exposures will be prepared. The report outlines the methodology, the workers / locations tested, each worker's exposure, a correction for respiratory protection worn, and any recommendation arising from the sampling results and observations in the field. The tests and report comply with the requirements under Provincial regulations. Recommendations for reducing welding exposures are included in the report.

Field Investigators

All fieldwork, data interpretation, and report preparation will be performed by an experienced occupational hygienist. Our staff is familiar with the Manitoba requirements of Occupational Health and Safety legislation. All work is performed under a professional Occupational Hygienist who is/has:

- Certified by the American Board of Industrial Hygiene
- Registered by the Canadian Registration Board of Occupational Hygienists
- Registered by the Association of Registered Safety Professionals
- > 30+ years of professional experience
- A former government inspector for the Provincial Workplace Safety and Health Division