

RESPIRATOR WORKPLACE PROTECTION FACTORS FOR ASBESTOS
SUMMARY AND BACKGROUND

Workplace protection factors for elastomeric and single use half-mask respirators were measured during asbestos removal operations. The operations consisted of asbestos removal from a ceiling (fire proofing) and removal of pipe insulation. The use of water/surfactant solutions to spray fire proofing and insulation resulted in conditions of high humidity for in-doors operations. Out-of-doors operations were also under high humidity conditions since light rain occurred on two of four days of out-of-doors sampling. Temperatures for both operations were in the 65-85°F range.

The respirators were used in the context of a respirator program that followed the guidance in 29 CFR 1910.134 and ANSI Z88.2 (1980) including proper respirator selection and fit testing. A total of seventeen volunteers participated in the study. One or two workplace protection factors were determined for each respirator for which the fit test had been passed.

The respirators tested were:

- One successfully fitted elastomeric facepiece respirator chosen for comfort from six respirators (MSA Comfo II and Survivair 2000 brands - small, medium or large sizes). These respirators were tested using a dust, fume and mist type filter and a high efficiency filter.