

## Occupational Health Risks Associated with the Use of Irritant Smoke for Qualitative Fit Testing of Respirators

Application Note ITI-040

*S.W. Lenhart and G.E. Burroughs Appl. Occup. Environ. Hyg. 8(9); September 1993.*

The National Institute for Occupational Safety and Health (NIOSH) conducted a Health Hazard Evaluation (HHE) in response to a request from a fire chief of a municipal fire department. The HHE request was received after four fire fighters reported experiencing either skin irritation or eye irritation as a result of qualitative fit tests using irritant smoke. One of these fire fighters had eye irritation severe enough to require treatment at a hospital. The issues addressed in this case study are: (1) evaluation of the health risks associated with the use of irritant smoke for qualitatively fit-testing respirator facepieces and (2) recommendation of an alternative method that should be used for fit testing the facepieces of self-contained breathing apparatuses (SCBA).

Also, see the [NIOSH August 4, 1999 policy statement](#) regarding the irritant smoke fit test.



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