

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Environmental and Occupational Health
School of Public Health

Box 807 Mayo
420 Delaware Street S.E.
Minneapolis, MN 55455
612-626-0900
Fax: 612-626-0650

April 1st 1996

Diane Manning,
NIOSH,
Education and Information Division,
Mail Stop C34,
4676 Columbia Parkway,
Cincinnati, OH 45226-1998.

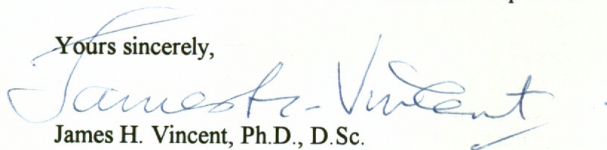
Dear Ms. Manning,

Re: Criteria for a Recommended Standard: Occupational Exposures to Metalworking Fluids

I am writing with my brief comments on this document. The section of particular interest to me was that concerning exposure assessment and sampling. The sections on this do reflect to some extent the discussion that has been taking place for the past decade on the particle size-selective criteria for new aerosol standards, touching variously on measurement of exposure in terms of 'total', inhalable, thoracic and respirable aerosol. However there remains some confusion about how these very different criteria might apply to metalworking fluids. In developing a new standard, it needs to be stated somewhere explicitly that the particle size-selective criteria which will be used as the basis of exposure assessment (and hence of the OEL itself) will be chosen on the basis of the nature of the relevant health effects. More specifically (since the exposure assessment on the basis of 'total' aerosol is now considered to be generally inappropriate), the decision needs to be made as to whether the standard will be based on inhalable, thoracic or respirable aerosol. But the choice may be different, for example, for straight cutting oils (where, in my opinion, the inhalable aerosol criterion would probably be the most appropriate) than for aqueous fluids (where thoracic aerosol might be more appropriate).

In summary, with the above in mind, I believe that the scientific basis of the choice of exposure assessment criterion needs to be brought out more strongly early on in the document, and work needs to be done on the later parts of the text to eliminate the confusion between the various measures of exposure.

Yours sincerely,



James H. Vincent, Ph.D., D.Sc.
Professor

rec'd
11/1/96