

Workplace Protection Factor Study Protocol

T.J. Nelson^a and L. Janssen^b

^a NIHS Inc., Wilmington, DE,

^b 3M OSHESD, St. Paul, MN

E-mail: tjnelson1@comcast.net

WPF studies are done for a number of reasons, such as determining whether employees are overexposed, looking for differences in performance between two types of filters or the establishment of assigned protection factors (APFs). The amount of information collected in a single study is usually limited because of the expenses involved. One method used to increase the statistical certainty of data collected is to combine data from several studies into a larger data set. It is important that the data from studies be collected in a way that allows for meaningful combinations. Without specifying a study design, guidance on the type of data that should be reported will allow other researchers to use and combine data from several studies.

The goals of the standard WPF study protocol are to (1) define key components in a WPF study design and specify how to conduct a WPF study for any respirator model; (2) to provide guidance on collecting information that would allow for other uses of the data. The standard protocol is consisted of five key components: (1) WPF study site selection criteria; (2) worker selection criteria; (3) worker training and monitoring; (4) WPF sample collection and analysis; and (5) data analysis and report.