DEPARTMENT OF THE AIR FORCE
INSTITUTE FOR ENVIRONMENT, SAFETY AND
OCCUPATIONAL HEALTH RISK ANALYSIS (AFMC)
BROOKS AIR FORCE BASE TEXAS

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Director, Division of Respiratory Disease Studies
NIOSH
1095 Willowdale Road
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Dear Sir or Madam,

Over the past three years, the Institute for Environment, Safety and Occupational Health Risk Analysis Industrial Hygiene Branch completed numerous industrial hygiene field research studies during US Air Force corrosion control and fuel tank entry operations. The results of the studies can be viewed at web address http://sg-www.satx.disa.mil/~iera/rsh/IndustrialHygiene/index.html . During the conduct of the field studies, we identified the need for better marking of airline respirator hoses. Airline respirator hoses are currently marked with painted or ink stamped manufacturer's information. However, because of the work environment where the hoses are used, the markings frequently rub off from abrasion. The loss of manufacturer's markings makes hose identification virtually impossible. Additionally, many times hose couplings in use are not stamped with part or identification numbers, further complicating identification of the hose. Unmarked hoses and couplings may be one reason airline systems are incorrectly assembled; a problem identified during our field research evaluations. Airline respirator systems, with all their separate components, are somewhat complex. It is not surprising workers attach components incorrectly, use tool air hoses, or use the wrong parts when assembling the airline breathing air systems. New or inexperienced workers as well as the industrial hygienists evaluating the operation and the airline respirator system are forced to guess (usually based upon color or diameter) whether the correct hose is being used with the designated respiratory inlet covering. The correct hose and air delivery system components is obviously a concern, as certification is voided when the incorrect parts are used. More importantly, improper hose lengths, diameters, and materials can cause worker injury or illness.

Recognizing it is within NIOSH's purview to make recommendations to law makers, I suggest manufacturers be legally required to emboss or permanently tag their airline respirator hoses, as opposed to stamping identification information onto the hose. The permanent tagging would be required as part of the respirator breathing air system certification requirements. Permanent, more indestructible markings would assist workers when assembling airline systems, field industrial hygienists when evaluating the systems, and potentially prevent worker injury.

Thank you for consideration in this matter. I respectfully request you review this proposal and consider its inclusion in the next revision of the Code of Federal Regulations. I can be reached at (210) 536-6148 or e-mail ellen.england@esoh.brooks.af.mil if there are any questions.

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