This research has allowed the establishment of performance specification and certification standards for garments worn by pesticide operators and handlers around the world.

Personal Protective Technologies for Current and Emerging Occupational Hazards (NC170 Multistate Project)

Who cares and why?

Personal protective technologies (PPT) are often used to protect individuals exposed to occupational hazards in the workplace. Conformity assessment of these products helps to ensure that the products meet the minimum performance criteria established for the product. In the United States, a committee was convened by the Institute of Medicine (IOM) at the request of the National Institute of Occupational Safety and Health (NIOSH) to examine the conformity assessment process used for PPT (excluding respirators).

What has the project done so far?

The Principal Investigator for the protective clothing project at UMES serves as the technical contact for ASTM International standards as well as International Standards Organization (ISO) standards related to protective clothing for pesticide operators. A key challenge was to work with experts from several countries to ensure that the performance specifications used as the basis for certifying products are consistent globally. Research conducted at UMES during the current and previous research projects has been used for establishing performance requirements. ISO 27065:2011, Protective Clothing – Performance Requirements for Protective

Clothing Worn by Operators Applying Liquid Pesticides was approved in 2011, and ASTM F2669-12 – Standard Performance Specification for Protective Clothing Worn by Operators Applying Pesticides was revised in 2012. A Japanese Industrial Standard (JIS), based on ISO 27065:2011, has been approved. In addition, ASTM F2962-13 Standard Practice for Conformity Assessment of Protective Clothing Worn by Operators Applying Pesticides was approved as a standard in 2013.

Potential Impact Statement

The performance specification and certification standards have the potential to be used by the industry, third party testing laboratories, and organizations in the U.S. as well as other countries to certify garments worn by pesticide operators/handlers. Harmonized standards enable consistency in testing criteria at a global level. Harmonized requirements also provide researchers a mechanism to compare results based on consistent methodology.

If used, the performance requirements could assist in ensuring selection and use of appropriate protective clothing.

Want to know more?

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