

ANSI/ASABE S613-3.1 JUN2018

Tractors and self-propelled machinery for agriculture — Air quality systems for cabs — Part 3: Filters for environmental cab HVAC systems



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Developed by the ASABE Environment within Ag Vehicle Enclosures subcommittee; Approved by the ASABE Power and Machinery Division as an ASABE standard June 2013; approved as an American National Standard August 2013; revised June 2018.

Keywords: Air quality, Cabs, Engineering control, Environment, Filters, HVAC, Procedures, Safety, Terminology, Test, Tractors, Ventilation

1 Scope

This part of the S613 standard series is concerned with the generally accepted design principles and test procedures that define and qualify a filter for an HVAC system used in contaminated environments as part of an Occupational Health and Safety Management System (OHSMS). This document is intended to be a guide for engineers who are responsible for designs used in agricultural applications and for application specialists who are looking for a filter to be used when operating in a specific hazardous environment.

Filter performance specifications for the cab and HVAC system will be a primary consideration in this part of the standard. These performance specifications may be used by cab designers and filter manufacturers to develop air purification devices that can be used in a specific HVAC system for reduction of application specific air-borne contaminants as part of an OHSMS as defined in ANSI/ASABE S613-1.

This standard provides guidance for use of these systems and defines a way to test the level of protection provided, as defined by the OHSMS (See ANSI/ASABE S613-1 Tractors and self-propelled machinery for agriculture — Air quality systems for cabs — Terminology and overview). It is expected that other tests may provide cabs that are as well suited for this purpose; it is up to the user to demonstrate equivalency.

This standard is not intended to qualify cabs for use in extreme hazardous or oxygen depleted environments where a pressurized respirator or other high specification protection requirements are required and therefore are not covered by this standard.

Note: In this standard, the term “filter” will be used to signify the air purifying device.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

ANSI/ASABE S613-1, Tractors and self-propelled machinery for agriculture — Air quality systems for cabs — Terminology and Overview

ANSI/ASABE S613-2, Tractors and self-propelled machinery for agriculture — Air quality systems for cabs — Part 2: Cab & HVAC design