

## **TPS Standard 145.4P**

### **Method of Test for Assessing the Gas-Phase Performance of Air Cleaning Devices and Systems in a Duct-Chamber Apparatus**

#### **1. Purpose:**

To provide a laboratory test method for evaluating air cleaning devices for challenge gas removal in a combined duct-chamber system with continuous recirculation.

#### **2. Scope:**

**2.1** This standard specifies a duct-chamber test method for measuring the performance of in-duct and in-room air cleaning devices with continuous recirculation through the duct and chamber.

**2.2** The test method measures the performance of air cleaning devices for removing challenge gases.

**2.3** This test method is conducted at elevated challenge gas concentrations (relative to ventilation applications) and therefore should be used to compare devices rather than directly predict performance in real world applications. The challenge gas and likely byproducts will be measured over time.

**2.4** Air cleaner performance is defined as the total impact of the air cleaner on the challenge gas in the chamber air and including any gaseous or particulate byproducts.

**2.5** This standard provides performance specifications for the equipment and measurements required to conduct the test method, defines procedures for calculating and reporting results and provides a results reporting system.

**2.6** This standard does not address the health and safety effects of operating devices and systems in an occupied room.