RA3.7.4 Procedures

This section describes the procedures used to verify Mechanical ventilation system airflow.

RA3.7.4.1 *Mechanical Ventilation Airflow Rate Measurement - Continuous Operation*

If multiple fans are specified to operate simultaneously to provide the total required ventilation airflow, the measurements shall be made with all applicable fans operating simultaneously.

RA3.7.4.1.1 **Supply and Exhaust Ventilation Systems**

a) A flow measuring device that meets the applicable instrumentation requirements given in Section RA3.7.2, and RA3.7.3 shall be used to measure the ventilation airflow(s).

b) Measure and record the ventilation airflow(s).

c) If the measured total airflow is greater than or equal to the ventilation airflow rate required by the Standards or the Certificate of Compliance, the mechanical ventilation system complies. Otherwise the mechanical ventilation system does not comply, and corrective action shall be taken.

RA3.7.4.1.2 **Balanced Ventilation Systems**

a) A flow measuring device that meets the applicable instrumentation requirements given in Section RA3.7.2, and RA3.7.3 shall be used to measure the ventilation airflows.

b) Confirm that both the supply side and the exhaust side of the balanced system operate simultaneously in response to a shared system control.

c) Measure the airflow rate for the exhaust side of the system.

d) Measure the airflow rate for the supply side of the system.

e) Calculate the percent difference between the exhaust and supply airflow rates.

f) Calculate the average of the exhaust and the supply airflow rates.

g) If the exhaust and supply airflow rates are within 20% of each other, and the average of the exhaust and supply airflow rates is greater than or equal to the airflow rate required by the Standards or the Certificate of Compliance, the balanced ventilation system complies. Otherwise, the system does not comply, and corrective action shall be taken.

RA3.7.4.2 *Mechanical Ventilation Airflow Rate Measurement - Intermittent Operation*

The Executive Director may approve intermittent mechanical ventilation systems, devices, or controls for use for compliance with field verification and diagnostic testing requirements for mechanical ventilation airflow, subject to a manufacturer providing sufficient evidence to the Executive Director that the installed mechanical ventilation systems, devices, or controls will provide at least the minimum ventilation airflow required by the Standards, and subject to consideration of the manufacturer's proposed field verification and diagnostic test protocol for the ventilation system(s).

Approved systems, devices, or controls, and field verification and diagnostic test protocols for intermittent mechanical ventilation systems shall be listed in directories published by the Energy Commission.

RA3.7.4.3 *Kitchen Range Hood Verification*

The verification shall utilize certified rating data from the Home Ventilating Institute (HVI) Certified Home Ventilating Products Directory at https://hvi.org/proddirectory/index.cfm or another directory of certified product performance ratings approved by the Energy Commission for determining compliance. The verification procedure shall consist of visual inspection of the installed kitchen range hood to verify and record the following information:

(a) The manufacturer name and model number.

(b) The model is listed in the HVI Directory.

(c) The rated airflow value listed in the HVI directory.

(d) The sound rating value listed in the HVI directory.

(e) If the value for the rated airflow given in the directory is greater than or equal to the airflow requirements specified in the Standards, and if the value for the sone rating given in the directory is less than or equal to the sone rating requirements specified in Standards, then the kitchen range hood complies, otherwise the kitchen range hood does not comply.