Laboratory Fume Hood Annual Certification Procedure

Applicable Regulations
CCR Title 8, §5154.1. Ventilation Requirements for Laboratory-Type Hood Operations
(www.dir.ca.gov/Title8/5154_1.html)

Testing Procedure
1. Position the sash to match the arrows (for a recertification).
   a. If never before certified, the preferred sash certification height is fully-open, if it will not pass at fully open, lower the sash to 20 to 24 inches. If it will not pass, lower the sash to 18 inches
2. Puff smoke around the opening of the hood by using the Ventilation Smoke Tubes, or TiCl₄ or the Wizard stick. No smoke should come out of the hood.
3. Turn on the Shortridge Instruments Meter. Change the mode to VELGRID by depressing the MODE key twice. Press the STORE key.
4. Measure the velocity of the air by placing the velgrid of the Shortridge at bottom of the sash, top of the hood opening and in line with the sash.
   a. Measure across the length of the entire opening.
   b. Depress the READ button between each measurement.
   c. The Shortridge will store each reading.
   d. To obtain the average of the readings, push the STORE button. Push the RCL button to see the individual stored readings.

Paperwork
1. Fill out the information asked for on the top of the UCR EH&S Exhaust Ventilation Performance Survey form. Write in the Room no, Hood no. and TSS number.
2. Fill in the readings in the appropriate squares on the form and write in the average reading.
3. If a fume hood does not pass, tape a Warning sign onto the sash.
4. If a fume hood does pass, fill out the yellow inspection sticker with date, flow rate and initials of the inspector.
5. If there is not a yellow sticker on the hood, affix an arrow to the sash and a certification sticker to the side of the hood. The height of the sash should be no less than 18 inches.
6. Enter the data in the EHSHOOD data base.

Determining Whether to Pass a Hood
The following four conditions must all be met in order for the hood to pass:
1. The average face velocity with the sash at an opening of 18 inches (or greater) must be a minimum of 100 fpm. (The preferred sash certification height is fully-open)
2. No individual measurement can be less than 70 feet per minute (fpm) (excluding within 1 inch of the perimeter face of the hood).
3. The average face velocity, with the sash fully open, can not be greater than 300 fpm.
4. Smoke can not come out of the hood.