



GUIDANCE FOR SCHOOLS – 10/14/21

Los Angeles County's Recommendations for Area Schools impacted by Foul Odors in the Community

The Los Angeles County Department of Public Health (Public Health) is issuing the following guidance for schools that may be impacted by foul odors detected in the vicinity of the Dominguez Channel in the City of Carson and in surrounding communities. Intermittently elevated, but not toxic, concentrations (levels) of hydrogen sulfide, which smells like “rotten egg”, have been detected in the air in the same areas. At this time, the source appears to be naturally decaying organic material (vegetation and marine life) at the bottom and sides of the Dominguez Channel in Carson. No other point sources for the hydrogen sulfide have been identified as air monitoring of the surrounding areas continues. Los Angeles County Public Works continues working to address and monitor the issue in the Channel, while the South Coast Air Quality Management District (SCAQMD), County Fire Hazardous Materials (HazMat), and Public Health continue to evaluate and monitor hydrogen sulfide concentrations and mitigate health impacts.

HOW DO I REPORT ODORS?

School personnel should report odor complaints to the South Coast Air Quality Management District (SCAQMD) at <http://www.aqmd.gov/home/air-quality/complaints>, or by telephone at 1-800-CUT-SMOG (1-800-288-7664). Odor reporting is an important tool for assisting agencies evaluating the extent of odors, the impacted areas.

ARE THE ODORS HARMFUL TO MY HEALTH?

Hydrogen sulfide is a colorless gas that has a very strong odor (like “rotten egg”). Its smell can be detected and cause temporary mild to moderate symptoms even below the minimum detection limit of 1 part per million (ppm) or 1000 parts per billion (ppb) of typical equipment used to detect it. Everyone should take steps to reduce their exposure when the odors are present. The health effects of hydrogen sulfide can vary depending on the level and duration of exposure. The levels detected, thus far, are not expected to cause irreversible health effects. They are high enough to cause a strong, foul odor in the community, which in some cases can lead to headaches and irritation in the eyes, nose, throat, and lungs. These symptoms may be accompanied by dizziness, nausea/vomiting or abdominal discomfort. These symptoms should be short-term and typically resolve when the odor goes away or when the person is in an area where the odors are not present. Symptoms can be worse in people with pre-existing lung or heart conditions, such as asthma, COPD, or heart disease. If symptoms are persistent, worrisome, or worsening, people should seek medical attention and take steps to reduce your exposure to the odors.

RECOMMENDATIONS

While the effort to get rid of the odor continues, Public Health recommends the following for area schools:

- 1) If anyone feels their symptoms are life threatening, seek immediate medical care.
- 2) Where feasible, central heating, ventilation, and air conditioning (HVAC) systems can be equipped with High Efficiency Particulate Air (HEPA) or MERV-rated filters with activated charcoal (carbon) to improve the air quality inside and reduce odors. A filter with activated carbon plus potassium permanganate, if available, is the best air filter to capture hydrogen sulfide. Consult with an HVAC expert to determine the most appropriate equipment(s) for your school buildings.
- 3) Certified portable HEPA indoor air filters with activated charcoal may be used in buildings without HVAC systems. A partial list of CARB-approved air cleaners attached below.
- 4) Students, faculty, and school staff impacted by odors should have free access to disposable masks. Masks should be changed at least twice per day during school hours. Moisture buildup in masks may trap hydrogen sulfide odors over time.
- 5) Students with diagnosed medical conditions such as asthma should have their prescription medications on-hand at school offices, should they require their medications for respiratory symptoms. Schools should check with families to ensure that students' medications are available for use at school as needed.



- 6) At this time schools should limit student exertion outdoors in the presence of odors. This may entail canceling outdoor physical education and athletic events in impacted areas.
- 7) Seek medical care for any person at school with persistent or worsening symptoms.

Although closing windows and external doors is one way to limit entry of disagreeable outdoor odors into the building, the risk of exposure to the odors must be weighed against increased risk of indoor COVID-19 transmission when ventilation and indoor-outdoor air exchange are reduced. For buildings and rooms without HVAC systems or poorly functioning systems, maximizing ventilation by maintaining open doors and windows remains a preferable COVID-19 mitigation strategy when outdoor air conditions are tolerable.

For more information on protective measures to prevent odors from entering the home, please contact the Public Health Community line at 626-430-9821 and leave a message with your contact information and your call will be returned. The message line will be checked every hour between 7 a.m. to 10 p.m. every day while odors persist. You can also visit <https://lacounty.gov/emergency/> for more information.

Air Cleaners and Filters to Improve Indoor Air Quality Reduce Odors

Air filters designed for use in HVAC systems, if properly configured and maintained, may have the greatest potential to improve air quality because most HVACs circulate very large volumes of filtered air throughout the space.

Portable units are usually best for single room use because of their limited capacity to circulate large volumes of filtered air.

Some Examples of Certified Portable Air Filters/Cleaners, as listed by the California Air Resources Board (CARB)

Brand	Model Name	Model Number	Type	Date Notified	EO Number
Aireox	Model 45x	45B	Mechanical	2020-01-23	G-20-009
Levoit	Tower Pro HEPA Air Purifier	LV-H134	Mechanical	2019-06-05	G-19-086
Winix	5300-2	5500-2	Electronic	2016-04-20	G-16-053
GermGuardian	Air Purifier	RAC5250PT	Electronic	2018-12-14	G-18-136

These are just listed as examples; other brands and models of portable HEPA filters with activated carbon/charcoal exist. The ones listed were found to be available on Amazon and at local stores.

CARB Certification

State regulation requires all air cleaners sold or distributed in California to be certified as not exceeding 50 parts per billion of ozone when tested using a specified test method. CARB offers a list of [certified air cleaner models](#) on its web page. Note that this certification only covers ozone emissions and electrical safety; it does not include performance testing for removal of particles or chemicals from the airstream.

