

Update on Reducing Health Risk from Air Pollution at Schools

Presentation to the
Facilities Committee

10/2/08

Office of Environmental Health & Safety

Air Pollution Working Groups

- Four groups:
 - Interagency
 - Filtration
 - Transportation and Bussing
 - Outdoor Exposure
- Over 50 experts from:
 - LAUSD
 - EPA
 - ARB
 - AQMD
 - LA County Health
 - UCLA/USC
 - Industry

Interagency Group Recommendations

- Convene smaller, more focused groups for technical recommendations
- Gather support from community and other school districts
- Draft potential legislation to address air pollution at schools

Recent Filtration Studies

- EPA study in Las Vegas at 3 schools near US 95 freeway
 - Pollutant concentrations in classrooms depend on season, time of day, traffic volume, doors/windows
 - Wind direction and sound walls provide minimal mitigation
- AQMD study at Del Amo ES , Dominguez ES (LAUSD), and Hudson ES (LBUSD)
 - Preliminary results indicate high efficiency filters that fit into existing HVAC systems are effective at reducing particulate pollution
 - Filters only effective if doors/windows closed and HVAC system is on

Filtration Group

Recommendations / Findings

Particulates

- Upgrade HVAC filters
 - May be a cost-effective solution based on current technology
 - 80%-85% efficient for all particle sizes based on preliminary results
 - HVAC systems with upgraded filters should be kept on at all times when classrooms occupied
 - Doors and windows should remain closed at all times
- Adapt HVAC schedule to reduce pollutant loading in mornings
- Seal buildings

Gases

- Carbon filters available for some gases, but much less effective (<50%) and more expensive
- May require additional modifications to existing equipment

Transportation Group Recommendations

- Replace older vehicles with new vehicles with cleaner technologies
- Identify methods to reduce vehicle miles travelled for District fleet (underway)

Discussion for Outdoor Exposure Group

- Reduce outdoor physical activity during rush hour for schools near high-traffic roadways
- Sign up highest priority schools with AQMD air quality flag program
- Design school additions to provide buffer zones
- Investigate feasibility of adding pollutant-reducing vegetation (trees)

Air Quality Flag Program for Schools

The Air Quality Flag Program provides information to help protect you and your family from air pollution. By checking local school flagpoles and comparing the colored flags to the index, you can tell what the daily air quality is, and adjust your activities to reduce your exposure to air pollution. This pilot program is being offered at a limited number of participating schools throughout Orange, and the urban areas of Los Angeles, Riverside, and San Bernardino counties at this time. For more information, give us a call at 1-800-4-CLN-AIR.

AQMD AIR QUALITY **Flag** PROGRAM

Air pollution in our region affects us all. It can be especially harmful to the elderly, people with lung or heart problems, and children whose lungs are still growing.

Air pollution can damage lungs, trigger asthma episodes, and weaken immune systems. Knowing when the air is bad can help us all avoid unhealthful outdoor physical activities during these times.

Did you know that about 800,000 children in California have asthma?*

Your school is participating in a program to help protect children from air pollution. A special flag will be flown at school each day to let everyone know what the air quality is (see opposite page). Schools in the program can opt to adjust their outdoor activities according to the levels of pollution - helping to protect the health of children.

If you, your children, or anyone else in your family has lung or heart problems, or compromised immune systems, special care should be taken on bad air days. Even healthy individuals who exercise outside regularly should be aware when there is bad air quality.

Is the air getting to you? If you feel like this, tell your teacher and parents.



Shortness of Breath



Coughing



Nausea



Headache



Eye and/or Nose Irritation









Wheezing



Pain When Taking a Deep Breath

* American Lung Association of California

AQMD AIR QUALITY **Flag** PROGRAM

 Good 0-50	Clean air, have fun! No limitations. 
 Moderate 51-100	The air is okay, but not the best for everyone. If you need to, just play easy. <small>Sensitive people should consider reducing prolonged or heavy exertion outdoors.</small>
 Unhealthy for Sensitive Groups 101-150	Don't stay outside too long or play too hard. <small>Active children and adults, and people with lung disease, such as asthma, should avoid prolonged or heavy exertion outdoors.</small>
 Unhealthy 151-200	It's best to stay indoors, but if you have to be outside, just relax and take it easy. <small>Active children and adults, and people with lung disease, such as asthma, should avoid heavy exertion outdoors. Everyone else, especially children, should avoid prolonged or heavy exertion outdoors.</small>
 Very Unhealthy 201-300	Time to stay indoors. <small>Active children and adults, and people with lung disease, such as asthma, should avoid all exertion outdoors. Everyone else, especially children, should avoid prolonged or heavy exertion outdoors.</small>

South Coast Air Quality Management District
Cleaning the air that we breathe...™
Visit us at www.aqmd.gov or call 1-800-CUT-SMOG.

This Air Quality Index magnet tells you what to consider based on the daily air quality forecast. You can place it on your refrigerator for easy viewing.

Next Steps

- Support emission reduction legislation
 - Upcoming ARB Truck and Bus rule
 - Port truck rules
- Draft legislation to provide funding at state/federal level to reduce exposure at schools until tighter emission controls available
- Implement recommendations within District
- Conduct further analysis and business case analysis to quantify impact on District budgets.