

All American Asphalt Community Air Monitoring



Background: In response to concerns raised by nearby residents, a multi-pronged emissions investigation was conducted near Irvine's All American Asphalt facility to determine if emissions are impacting nearby communities.

Air Monitoring Conclusions



No Elevated Levels of
Air Toxics Detected*

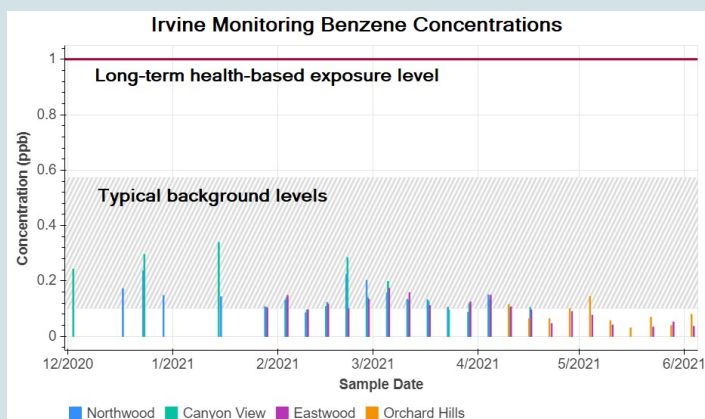


Air toxic monitoring levels below
long-term health-based thresholds

Air Monitoring Efforts

South Coast AQMD

- Monitored for air toxics
- Collected air samples from multiple sites using U.S. EPA-approved methodologies
- Results within background levels, below long-term health levels



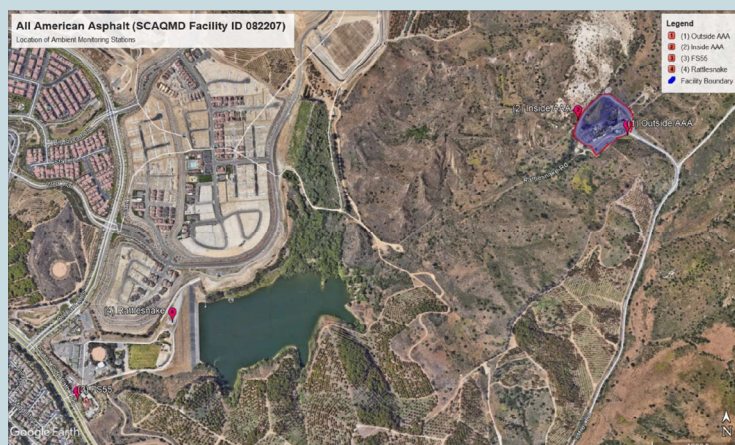
Additional results for air toxics monitoring can be found at: <http://www.aqmd.gov/home/news-events/community-investigations/air-sampling-initiative>

Jun Wu Research Group, UC Irvine

- Used a low-cost sensor (Atmotube Pro™) for continuously measuring ambient Volatile Organic Compound (VOC) levels to see if there were patterns in time and at different locations in the Irvine community starting in November 2020.
- The same type of low-cost sensors were evaluated by South Coast AQMD in April 2021. Testing results show that VOC levels measured by the low-cost sensors were biased high and did not correlate with actual concentrations.
- In a letter sent to the community on August 4th, Dr. Wu cautioned that the data from the low cost sensor should not be used “to make any health risk estimates or source characterization.”

City of Irvine

- Took samples for over 100 individual chemical compounds. Results show most concentrations are within typical regional background levels.
- The samples were taken at four separate locations, including on-site at the plant and in the surrounding community (see map below).



Complete results can be found at <https://www.cityofirvine.org/community-development/all-american-asphalt>

Don Blake Research Group, UC Irvine

A number of short-term air samplers were analyzed for gaseous air toxics. The effort provided samplers to residents for collecting air samples during odor events and when VOC levels on the sensors were elevated. The data from these sampling efforts are posted here: <https://sites.uci.edu/rowlandblakelab/>.

*A sample on 12/23/20 showed slightly higher background levels of methylene chloride and styrene but were below health-based levels

(((•))) Sensor Testing

South Coast AQMD conducted an extensive evaluation of Atmotube Pro low-cost VOC sensor in April, 2021. The evaluation included a side-by-side comparison of several of those sensors to a calibrated monitor to assess performance. The low cost sensor results showed extremely poor correlation to total VOC levels on the certified monitor. When the sensor sampling work was initiated in 2020, Jun Wu Research Group was not aware of this issue; her group will look into more accurate VOC sensors for future use. South Coast AQMD's full evaluation can be found at: <http://www.aqmd.gov/home/news-events/community-investigations/air-sampling-initiative>.

Odors

Many actions can cause odors including:



Industrial Operations



Construction



Paint



Truck Traffic

Odors do not necessarily mean high levels of toxic pollutants are present but can cause short-term symptoms



Actions to Minimize Impact from Facility Operations



- Installation of a carbon adsorption unit for its crumb rubber/asphalt blending system to reduce odors.



- Facility to require drivers to cover any loads of asphalt prior to leaving.



- Facility required to provide drivers with information on current City of Irvine truck routes to reduce routes through community.

Next Steps

Source Tests are being conducted and information will be released once all the data is received and reviewed.



South Coast AQMD is reviewing permit applications for equipment at the facility.



All American Asphalt is being evaluated as part of South Coast AQMD's AB 2588 Toxic Hot Spots Program.



Emission reports are being updated by All American Asphalt. South Coast AQMD expects to complete its review in Fall of 2021



South Coast AQMD will respond to all air quality complaints. To file a complaint call 1-800-CUT-SMOG or visit <http://www.aqmd.gov/home/air-quality/complaints>

