City of Irvine
Ambient Air Sampling

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South Coast Air Quality Management District
COMMUNITY MEETING
ALL AMERICAN ASPHALT
Zoom Meeting
February 24, 2021
City’s Air Sampling Program - Objectives

Purpose and Objectives:

• Characterize pollutants near property and in community
  o Establish detailed chemical profile of ambient air
  o Include chemicals reported annually to SCAQMD (Facility ID 82207)
  o Include chemicals associated with Asphalt plant operations

• Compare fence-line and community air monitoring results
  o Compare results with regional (so-called “background”) levels

• Odor nuisance Testing in response to Public complaints

Sampling Program Criteria:

• Use SCAQMD and U.S. EPA standards & test methods

• Report analytical results in a manner that could be compared to test data collected by SCAQMD and health-based standards
City’s Air Sampling Program - Framework

<table>
<thead>
<tr>
<th>Chemical Compounds of Interest</th>
<th>Analytical Test Method</th>
<th>No. of Analytes Tested</th>
<th>Purpose of Analysis¹</th>
<th>Integrated Sample Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi volatile organic compounds (SVOC)</td>
<td>U.S. EPA Method TO-15</td>
<td>83 chemicals</td>
<td>Health Impacts</td>
<td>24 hours</td>
</tr>
<tr>
<td>Sulfurous compounds</td>
<td>SCAQMD Method 307-91</td>
<td>21 chemicals</td>
<td>Odor Nuisance, Health Impacts</td>
<td>24 hours</td>
</tr>
<tr>
<td>Polycyclic aromatic hydrocarbons (PAH)</td>
<td>U.S. EPA Method TO-13A</td>
<td>18 chemicals</td>
<td>Health Impacts</td>
<td>24 hours</td>
</tr>
<tr>
<td>Ambient metals</td>
<td>NIOSH Method 7300 Modified</td>
<td>26 chemicals</td>
<td>Health Impacts, Odor Nuisance</td>
<td>24 hours</td>
</tr>
<tr>
<td>Odor</td>
<td>ASTM Method Euro E679-19</td>
<td>N/A</td>
<td>Odor Nuisance</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Formaldehyde and Aldehydes²</td>
<td>U.S. EPA Method TO-11A</td>
<td>12 chemicals</td>
<td>Health Impacts, Odor Nuisance</td>
<td>24 hours</td>
</tr>
</tbody>
</table>

¹ Listed in order of primary and secondary potential impact, if applicable
² Added for second sampling event forward, based on concerns expressed during Nov. 19 community meeting
# Ambient Air Sampling Locations

<table>
<thead>
<tr>
<th>Sample Location</th>
<th>Sample Date</th>
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<tbody>
<tr>
<td>Outside AAA (fenceline)</td>
<td>November 19, 2020</td>
</tr>
<tr>
<td>Inside AAA (fenceline)</td>
<td>November 30, 2020</td>
</tr>
<tr>
<td>Fire Station #55</td>
<td>January 6, 2021</td>
</tr>
<tr>
<td>Rattlesnake Reservoir</td>
<td>January 7, 2021</td>
</tr>
</tbody>
</table>
Sampling Results - Summary

• Relatively consistent levels between fenceline and community sample locations
  o Some compounds showed higher results in the community than fenceline
    o Common organics (ethanol, benzene, isopropyl alcohol), Sulfur compound
    o Total particulates at fenceline monitoring were higher than those in the community
• No chemical compounds were detected above general concentrations considered to be background for the region
• Benzene was measured slightly above 8-hour and chronic reference exposure level, no other pollutants were above any environmental health-based standard
• Some chemicals showed concentration above the odor detection thresholds, specifically sulfur compounds
• Results are posted on the City’s website at: https://www.cityofirvine.org/community-development/all-american-asphalt-air-sample-summary-details