Tri-City Rock’s Emission 300x Higher Than Reported

Significant Health Risks at 3 Schools

Parents and Families of Stratford School at Osgood and Grimmer Elementary School in Fremont

December 2018
Cement and Concrete (e.g. for a Driveway)

Cement + Sand + Gravel = Concrete

Cement: 1 Ton
Sand: 7 Ton
Gravel: 1 Ton
Concrete: 7 Ton
The Chain of Events

Tri-City Rock
- Reported: 203-269 Tons
- Actual: 58,688 – 98,034 Tons

Bay Area Air Quality Management District
- Reported PM2.5: 0.042 ug/m³
- Actual: 300-400 Times Higher

The School
- Reported PM2.5: 0.04 ug/m³
- Actual: 300-400 Times Higher

City of Fremont
- Approved
- Should NOT Approve
TCR 2016 Renewal of 80,000 Tons of Concrete

Cement is 13.49% of Concrete (2017 TCR data).
Actual Concrete 58,688 Tons. Error = 290 Times
TCR 2017 Renewal of 80,000 Tons of Concrete

Cement is 13.49\% of Concrete (2017 TCR data).
Actual Concrete 73,709 Tons. **Error = 338 Times**
TCR 2018 Renewal of 80,000 Tons of Concrete

Cement is 13.49% of Concrete (2017 TCR data)
Actual Concrete 87,581 Tons. Error = 325 Times
Permitted to Emit PM: 0.02 lb/day => Concrete: 269 Tons/Year
Permitted to Emit PM: 0.02 lb/day => PM2.5: 0.042 ug/m³
BAAQMD Calculated TCR Pollution (in ug/m3)

Lower TCR data caused Lower BAAQMD result. Actual PM2.5 would be 300-400 Times Higher
Illingworth & Rodkin 2017 Toxic Air Report for Stratford School

Table 2. Combined Community TAC Levels

<table>
<thead>
<tr>
<th>Source</th>
<th>Cancer Risk (per million)</th>
<th>Annual PM$_{2.5}$ ($\mu$g/m$^3$)</th>
<th>Acute or Chronic Hazard Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-680</td>
<td>47.8</td>
<td>0.2</td>
<td>0.03</td>
</tr>
<tr>
<td>Plant 6378 – Tri-City Rock, Inc., 43157 Osgood Road</td>
<td>--</td>
<td>0.04</td>
<td>--</td>
</tr>
<tr>
<td>UPRR</td>
<td>5.6</td>
<td>0.02</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Combined Sources</td>
<td>53.4</td>
<td>&lt;0.3</td>
<td>&lt;0.04</td>
</tr>
<tr>
<td>Fremont Combined Source Threshold</td>
<td>100.0</td>
<td>0.8</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Lower BAAQMD result caused I&R Report Error
Actual PM2.5 would be 300-400 Times Higher
Wrong Environmental Report Misled City. The City’s Approval Was in Error. This Application Should Not Be Approved.
TCR of 98K Throughput is 0, 130, & 360 ft from 3 Schools

- **Grimmer Elementary School**
  - Est. 1957
  - 472 Students

- **Stratford School**
  - 660 Students

- **Tri-City Rock**
  - Est. 1992
  - 30 Employees

- **Averroes High School**
  - 52 Students
At School
## Reported vs Actual

<table>
<thead>
<tr>
<th>12 Months Throughput</th>
<th>Tri-City Rock, Inc</th>
<th>BAAQMD PM2.5 Tool</th>
<th>BAAQMD Permit</th>
<th>Schools</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Document</td>
<td><img src="image1.png" alt="" /></td>
<td><img src="image2.png" alt="" /></td>
<td><img src="image3.png" alt="" /></td>
<td><img src="image4.png" alt="" /></td>
<td><img src="image5.png" alt="" /></td>
</tr>
<tr>
<td><strong>Reported 203-269 Tons</strong></td>
<td>Submitted, Application Approved</td>
<td>Approved, Published in PM2.5 Tool</td>
<td>Allowed to Emit Based on 269 Tons</td>
<td>Used in School Environmental Report</td>
<td>Used in Approval of School Site</td>
</tr>
<tr>
<td><strong>Actual 58688-98043 Tons</strong></td>
<td>Not Submitted in Renewals</td>
<td>Not Used in PM2.5 Calculation</td>
<td>Not Allowed to Emit over 269 Tons</td>
<td>Not Used in Environmental Report</td>
<td>Not Used in School Site Review</td>
</tr>
</tbody>
</table>
TCR Reported vs Actual Emission

• Reported Concrete Throughput: 203-269 Tons Yearly (2015-2017 TCR)

• Actual Throughput: 98,034 Tons Yearly (2017/09-2018/08 TCR 12 mo)

• Actual Emission: 300-400 Times Higher Than BAAQMD Allowed

• Impossible for 3 Schools to Safely Co-Exist With TCR
Measurement and Compliance?

• This is not a measurement issue
  • Impossible to separate TCR pollution from ambient pollution

• This is not a compliance issue
  • Pollution is 300-400 times higher even when TCR is in compliance
## Duty, Breach & Causation

<table>
<thead>
<tr>
<th></th>
<th>TCR</th>
<th>BAAQMD</th>
<th>Schools</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duty</strong></td>
<td>Submit Accurate Production Data</td>
<td>Generate Accurate PM2.5 Data</td>
<td>Select Safe School Site</td>
<td>Approve Suitable School Site</td>
</tr>
<tr>
<td><strong>Breach</strong></td>
<td>Submitted Lower Production Data</td>
<td>Generated Lower PM2.5 Data</td>
<td>Failed to Validate / Common Sense</td>
<td>Failed to Question / Common Sense</td>
</tr>
<tr>
<td><strong>Causation</strong></td>
<td>Fed BAAQMD Lower Data</td>
<td>Fed Public Lower PM2.5 Data</td>
<td>Submitted Hazardous Site Application</td>
<td>Approved Hazardous School Site</td>
</tr>
</tbody>
</table>
## Liabilities & Actions

<table>
<thead>
<tr>
<th>Liability</th>
<th>TCR</th>
<th>BAAQMD</th>
<th>Schools</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Make TCR Safe for Neighbors</strong></td>
<td>Reduce TCR Throughput to 269 Tons/Year</td>
<td>Enforce TCR Throughput to 269 Tons/Year</td>
<td>Operate Schools on Safe Sites</td>
<td>Enforce TCR Throughput to 269 Tons/Year</td>
</tr>
<tr>
<td><strong>Make TCR Safe for Environment</strong></td>
<td>Make TCR Safe for Environment</td>
<td>Make School Safe for Students</td>
<td>Make Area Safe for Schools</td>
<td></td>
</tr>
</tbody>
</table>
Actions

• BAAQMD: Immediately limit TCR’s TOTAL particle emission to 0.02 lb/day, as required by the Permit to Operate issued by BAAQMD to TCR on August 29, 2018

• City of Fremont: Immediately Revoke TCR’s Permit to Operate Over 269 Tons of Concrete per Year. The school was approved based on a number similar to 269 Tons per Year

• To develop an Industrial/Service Zone, the City should have relocated the cement factory before approving a school permit application. Now it’s time.
Thank You