Agenda

- Recap from November 2016 Meeting
  - Community request for source test
  - Questions about Right To Farm Act

- Source Testing Results (Brian Krebs, Permitting Program Supervisor, Sac Metro AQMD)

- Right to Farm Act (Angela Thompson, Field Operations Program Supervisor, Sac Metro AQMD)

- Other Comments Received (Angela Thompson)

- Questions
Recap

- Sac Metro AQMD
  - Regulate criteria pollutants and Hazardous Air Pollutants (HAPs) from stationary sources of air pollution

- Public Meeting November 9, 2016 - Action items
  - Source test results
  - Investigate Right to Farm Act “substantial increase”
    - Wastewater flow data
    - Production data
# Health Risk Assessment

## Health Risk Action Levels and Assessment Summary

<table>
<thead>
<tr>
<th>Type of Health Risk</th>
<th>Permitting Thresholds</th>
<th>Project HRA Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T-BACT</td>
<td>Maximum</td>
</tr>
<tr>
<td>Cancer Risk (Chances per Million)</td>
<td>≥ 1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Acute Non-Cancer (Hazard Index)</td>
<td>≥ 1.0</td>
<td>1.0</td>
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\(^{(A)}\) The point of maximum impact was located at 652604.00 m E, 4265630.00 m N just north of the plant on open land. Though it is not a residential lot nor developed, the risks were calculated for both residential as well as nonresidential to represent a worst-case analysis.

\(^{(B)}\) Since no carcinogenic compounds were found above the detection level, the cancer risk is zero.
Sacramento Rendering Company (SRC)
Sacramento Rendering Company (SRC)
Source Testing Parameters

Effluent air samples* obtained from following locations:

- Scrubber 1/APC Scrubber (Permit No. 21356)
- Scrubber 2/APC Counterflow Tower Scrubber (Permit No. 21357)
- Scrubber 3/Cross-flow Scrubber (Permit No. 17221)
- Scrubber 4/Spray Tower (Permit No. 18423)
  (Triplicate effluent air samples obtained)

* All samples were taken using a 30-minute regulator and summa canisters
Source Test Sampling

**Scrubber 1**

**Scrubber 2**
Source Test Sampling

**Scrubber 3**

**Scrubber 4**
Test Method –
EPA TO-15 (Toxic Organics)

- EPA approved method
- Used to quantify Hazardous Air Pollutants
- 67 pollutants were quantified
- Reliable concentration calculations
  - Analysis using Gas Chromatography and Mass Spectrometry
  - Accurate for low concentrations
# Test Method EPA TO-15

<table>
<thead>
<tr>
<th>LIST OF COMPOUNDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorodifluoromethane</td>
</tr>
<tr>
<td>Propene</td>
</tr>
<tr>
<td>Dichlorodifluoromethane</td>
</tr>
<tr>
<td>Chloromethane</td>
</tr>
<tr>
<td>Dichlorotetrafluorothane</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
</tr>
<tr>
<td>Methanol</td>
</tr>
<tr>
<td>1,3 - Butadiene</td>
</tr>
<tr>
<td>Bromomethane</td>
</tr>
<tr>
<td>Chloroethane</td>
</tr>
<tr>
<td>Dichlorofluoromethane</td>
</tr>
<tr>
<td>Ethanol</td>
</tr>
<tr>
<td>Vinyl bromide</td>
</tr>
<tr>
<td>Acetone</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
</tr>
<tr>
<td>2- Propanol (IPA)</td>
</tr>
<tr>
<td>Acrylonitrile</td>
</tr>
</tbody>
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## Source Test Results

<table>
<thead>
<tr>
<th></th>
<th>Scrubber1</th>
<th>Scrubber2</th>
<th>Scrubber3</th>
<th>Scrubber4</th>
</tr>
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<tbody>
<tr>
<td><strong>TAC</strong></td>
<td>lb/hr</td>
<td>lb/yr</td>
<td>lb/hr</td>
<td>lb/yr</td>
</tr>
<tr>
<td>Propylene</td>
<td>1.2E-03</td>
<td>10.8</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>9.0E-04</td>
<td>7.9</td>
<td>1.2E-03</td>
<td>10.4</td>
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<tr>
<td>Methanol</td>
<td>1.8E-02</td>
<td>161.6</td>
<td>9.0E-02</td>
<td>788.3</td>
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<tr>
<td>Ethanol</td>
<td>1.7E-01</td>
<td>1504</td>
<td>2.4E-01</td>
<td>2087</td>
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<tr>
<td>Acetone</td>
<td>4.4E-02</td>
<td>386.4</td>
<td>2.7E-02</td>
<td>234.5</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>1.9E-03</td>
<td>16.8</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>2-Butanoine (MEK)</td>
<td>8.1E-03</td>
<td>70.7</td>
<td>1.2E-02</td>
<td>105.9</td>
</tr>
<tr>
<td>Hexane</td>
<td>ND</td>
<td>ND</td>
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<td>ND</td>
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<td>Ethyl Acetate</td>
<td>ND</td>
<td>ND</td>
<td>2.1E-03</td>
<td>18.0</td>
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<td>Heptane</td>
<td>ND</td>
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<td>Toluene</td>
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Health Risk Assessment

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(B) Since no carcinogenic compounds were found above the detection level, the cancer risk is zero.
The Right to Farm Act

- Health and Safety Code § 41700 and Sac Metro AQMD Nuisance Rule (Rule 402) regulate nuisance

- The Right to Farm Act specifically exempts rendering plants from nuisance
The Right to Farm Act

- Exempt from nuisance unless:
  - the activities or operations substantially increase
  - those increases have a significant effect on the environment
- A public or private nuisance may be brought with respect to those increases
- Burden of proof falls on those alleging increase, not the source
The Right to Farm Act § 3482.6 (b)

- Activities or Operations
  - Activities: an increase in what is being done -- production
  - Operations: the processing lines
    - Capacity has not changed since permit issued in 2004
  - Question is two-part:
    - Has there been a substantial increase in production?
    - If so, has that substantial increase in production had a significant effect on the environment?
Production\(^1\), Wastewater Flow\(^2\) & Complaints: NO CORRELATION OBSERVED

1 Production data received from Sacramento Rendering Co.
2 Wastewater flow data received from Central Valley Regional Water Quality Control Board
Factors that Affect Wastewater Flow

- Changes in facility cleaning requirements (CDFA)
- Upgrades in odor control equipment (scrubbers)
- Changes in consumer meat consumption
  - Increase in low yield meat consumption
  - Fluctuation in consumer purchasing
- Changes in supermarket batching operations
  - Shift to tray-ready food (low yield)
  - Butchering occurs at central processing (low yield)
- Focus on biodiesel in business adds additional water

Increase in demand for lean meat. Trends in meat consumption in the United States, 2011
Carrie R. Daniel, Amanda J. Cross, Corinna Koebnick, and Rashmi Sinha
Production Records

- SRC had 2005 to current records available
- SRC keeps historical tax records (financials), but that is not clearly correlated to production
- Sac Metro AQMD staff audited 2005-2016 records to determine production records.
- Staff reviewed spreadsheet of off-weight tags (material in) and subtracted material that is not rendered (blood, grease, Koefran)
Factors that Affect Production

- Operational status of other rendering plants
- Weather and seasonality
  - Heat spells
  - Mass animal die-offs
- Business
  - Contracts (Foster Farm 1985-2011)
  - SJVAPCD permitted FF in 1997
- Consumer trends
  - Meat consumption
  - Livestock and poultry
Complaints

- Rendering odor is detected in the surrounding areas.
- Complaints about abnormally high odors help Sac Metro AQMD enforce permit conditions.
- Complaints should be real-time and include the following:
  - Contact information
  - Date/Time
  - Accurate location (where was odor detected)
  - Odor duration
  - Wind direction details
- Public questions and comments are always welcome.
  - athompson@airquality.org
Rendering Odor Complaints

![Bar chart showing the number of odor complaints from 2000 to 2017. The chart indicates a significant increase in complaints in 2016 with 214 complaints, followed by a slight decrease in 2017 with 181 complaints.](chart_url)
Public Comments & Questions

**Topic:** Sac Metro AQMD’s ability to regulate odor under the Right to Farm Act.

**Response:** We can and do regulate SRC. SRC is already equipped with odor control equipment. The Right to Farm Act precludes us from issuing a nuisance violation.

**Topic:** Other rendering plants in California are not protected under the Right to Farm Act.

**Response:** The applicability of the Right To Farm Act depends on when the plant was built and when surrounding communities were developed.

**Response:** The Right to Farm Act was meant to prevent odor nuisance complaints stemming from urban encroachment.

**Topic:** Sac Metro AQMD allows the rendering plant to have malfunctions.

**Response:** Sac Metro AQMD rules allow certain unforeseeable failures or malfunctions of air pollution control equipment to occur. Immediate corrective measures are required.

**Topic:** Other Air Districts (YSAQMD, BCAPCD) regulate agricultural processing facilities for odors. See next slides.
Right to Farm Act § 3482.6 (a)

(a) No agricultural processing activity, operation, facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after it has been in continuous operation for more than three years if it was not a nuisance at the time it began.
## Other Air Districts

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<tr>
<th>Yolo-Solano AQMD</th>
<th>Butte County AQMD</th>
</tr>
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</table>
| - Four agricultural facilities with water processing equipment under permit.  
- Requires odor control equipment on waste water.  
- Has issued a nuisance violation, but facility has not asserted the Right to Farm Act.  |
| - One agricultural facility with water processing equipment under permit.  
- Believes they are precluded from issuing a nuisance violation.  |
Public Comments & Questions

**Topic:** Risk analysis and VOC considerations

**Response:** Originally permitting used standardized factors for considering VOC emissions; HRA performed from source test results

**Topic:** Concerns regarding CEQA analysis during housing & school construction

**Response:** Analysis of health effects of rendering odor on residents and students was included in the Sac County Final Environmental Impact Report of 2001 for the Sunrise Douglas Community Plan/Sunridge Specific Plan.

**Response:** Sac County can address questions related to this impact report
Additional Information

- This presentation will be available at: http://www.airquality.org/Residents/Complaints

- Contact the Central Valley Regional Water Quality Control Board by phone or email with any groundwater, surface water, odor concerns, odor complaints, or permitting questions related to water: http://www.waterboards.ca.gov/centralvalley
Conclusion

- Sac Metro AQMD has and will continue to regulate SRC to the extent of its authority.
- Sac Metro AQMD has determined that there is no health risks from known carcinogens from SRC rendering process.
- Will follow up on Sac Metro AQMD recordkeeping authority.
- Will continue to monitor complaints.
- Will continue to participate with the community.
Sac Metro AQMD Contact Info

- Angela Thompson
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- Brian Krebs
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