AIR ISSUES & REGULATIONS COMMITTEE

A Committee of the Bay Area Clean Water Agencies

Quarterly Meeting

March 14, 2018

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Agenda

- Introductions
- GHG Updates
- AB 617 – Bridging ARB & Local Air Districts
- BAAQMD Rule Updates
- San Jose's BAAQMD Permit Process
- Lunch
- Tour: SJ's Zero Waste Facility

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INTRODUCTIONS

GHG Updates

- SB 1383 Regulation (short-lived climate pollutant reduction): Statewide Methane Reduction Organic Waste Diversion & Biogas Production
- BAAQMD Basin-Wide Methane Strategy
  - Rule 13-2: Large Methane Leaks
  - Composting & Organic Waste Operations
  - Wastewater and Anaerobic Digestion

SB 1383:
SLCP Reduction Strategy Implementation

- Methane Reduction:
  - 40% by 2030 (relative to 2013)

- Organics Diversion from Landfills:
  - 50% by 2020 (relative to 2014)
  - 75% by 2025 (relative to 2014)
- Increase in Production/Use of Biogas:
  - State agencies to consider/adopt policies and incentives
  - CEC to incorporate in the 2017 Integrated Energy Policy Report
  - CPUC to consider policies in support of in-State biogas production/use
- Rule to be adopted by end of 2018

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SB 1383:
CASA Comments on Draft Regulatory Text

- Land application of biosolids must be included as recycling option
- Must be able to dispose of sewage sludge in a landfill on a temporary emergency basis
- Must have assurance organic feedstock is clean
- Set statewide standard for land application and beneficial use of biosolids. US EPA's federal standards in 40 CFR part 503 or SWRCB's Statewide General Order.
- Must have assurance markets exist for the use of the biogas. Require set volumes of in-state biogas from anaerobic digestion be procured by Investor and Publicly Owned Utilities (IOU/POU).
- Next draft to be released in March

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BAAQMD'S BASIN-WIDE METHANE STRATEGY

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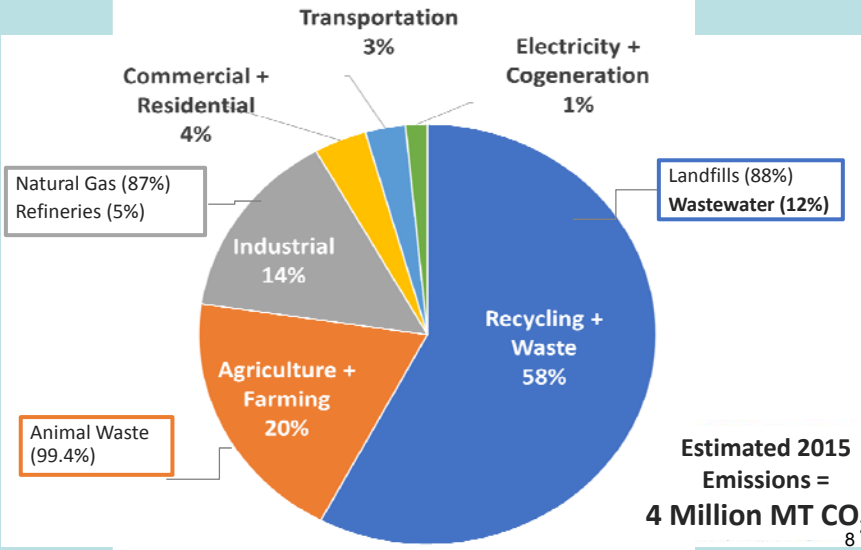
Methane in the Bay Area



Estimated 2015 Emissions =
4 Million MT CO_2e

Methane in the Bay Area
Scientific Findings

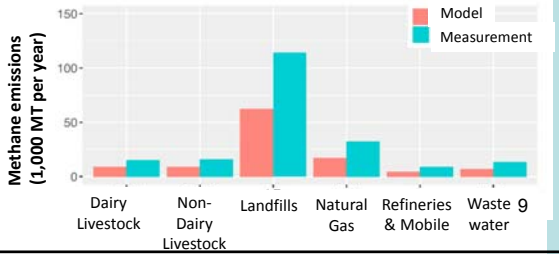
*Recent Bay Area "top down" studies**

- Methane emissions **are 1.3 – 2.3 times higher** than Air District inventory for 2015
- **Biological methane dominates** methane emissions in the Bay Area (82%), followed by natural gas (15%)
  - Landfills appear to be dominant source of biological methane

Knowledge Gaps

- Composting
- Anaerobic Digestion
- Refineries

*Fairley and Fischer, 2015; Jeong et al., 2017



Methane Research Efforts
Led by the Air District

TIERED APPROACH

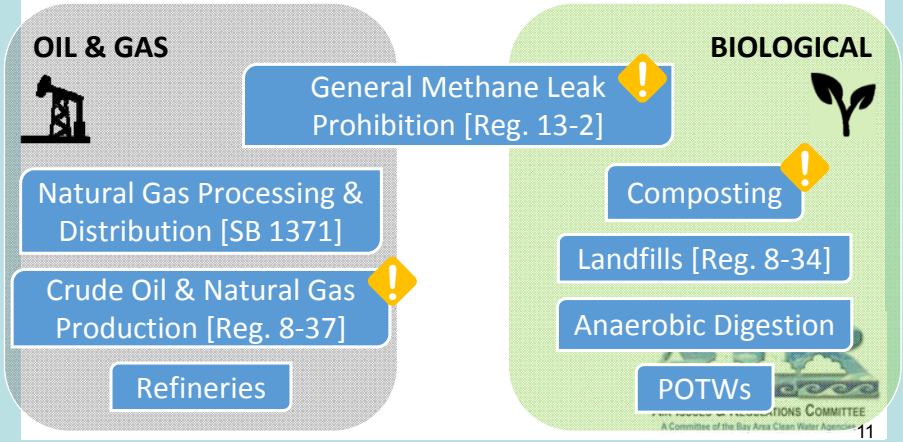
Aircraft-based flux estimates with in situ measurements

Aircraft surveys with visible/infrared imaging spectrometer (AVIRIS-NG)

On-site leak detection (mobile van) and flux evaluation (infrared cameras)

Basin-Wide Methane Strategy
Regulatory Efforts

METHANE RULE DEVELOPMENT MAP



Basin-Wide Methane Strategy
2018 Methane Rules

REG 13-2 SIGNIFICANT METHANE RELEASES

PURPOSE *Allow the Air District to compel facilities to fix major leaks; will act as **backstop** while source-specific rules are adopted*

CONCEPT *Prohibits methane releases throughout District*

SCHEDULE WORKSHOPS APRIL 2018 → TO BOARD JUNE 2018

NEW RULES COMPOSTING & ORGANIC WASTE OPERATIONS

CONCEPT *Adopt a suite of rules that address emissions from storing, transferring and processing organic waste at composting, anaerobic digestion and other waste-related facilities such as landfills.*

SCHEDULE *(first rule)* WORKSHOPS JULY 2018 → TO BOARD NOV 2018

Regulation 13, Rule 2: General Methane Leak Prohibition

Establish limit for methane leaks across *all* Bay Area sources

Background

- Aliso Canyon leak released ~2.4MMTCO$_2$e during 2015-2016
- Air District Rule 8-2 prohibits large leaks of organic emissions (15 lbs/day and 300 ppm) throughout District *but exempts natural gas*

Purpose

- To allow Air District to take prompt action in case of large leaks
- To serve as a **backstop** while source-specific rules are adopted

How will it work?

- Operators will need to fix leaks > 10,000 ppm and 10 lb/day

Reg. 13-2: Significant Methane Releases

Key Concepts

STANDARDS

Methane releases shall be mitigated if

POINT SOURCES > 10,000 PPM

UNLESS OPERATOR SHOWS < 10 LB/DAY FOR 5 DAYS

AREA SOURCES > 10,000 PPM

FIX TIMES

Releases

MINIMIZE RELEASE WITHIN 3 DAYS

MITIGATE RELEASE TO 500 PPM WITHIN 10 DAYS

Recurrent releases

MINIMIZE RELEASE WITHIN 3 DAYS

MITIGATE RELEASE TO 500 PPM WITHIN 7 DAYS

Basin-Wide Methane Strategy
Summary of Regulatory Efforts

2018
- Drafting Regulation 13, Rule 2 (Rule 13-2): Significant Methane Releases
- Composting and Organic Waste Operations Rule

2019
- Wastewater and Anaerobic Digestion Rule?

Short-term need: Input on digester maintenance and biogas management

Long-term need: Best Management Practices for digester gas venting

AB 617: Non-vehicular air pollution (CAPs & TACs)

- ARB to develop statewide system to annually report emissions (in consultation with air districts, OEHHA, EJ, etc.)
- By October 1, 2018:
  - Prepare monitoring plan and strategy to reduce CAPs and TACs – Draft Community Air Protection Program framework concept paper released February 7th
- By July 1, 2019:
  - Air districts deploy monitoring systems to priority communities/ locations (evaluated annually)
  - Air districts adopt community emissions reduction programs w/in one year
  - Expedited schedule for nonattainment locations (no later than Dec 31, 2023)

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BAAQMD Rule Updates

- Regulation 11, Rule 18:
  Reduction of Risk from Air Toxic Emissions at Existing Facilities
- Standard Permit Conditions (Permit Handbook):
  Anaerobic Digesters
- CA OSHA's H_2S Permissible Exposure Limit

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Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities

- Purpose:
  Protect public from toxic air contaminants at existing facilities
- Sources at POTWs:
  - Process emissions
  - Engines and incineration
  - Standby generators (Generator only facilities exempt if RAL < 250)
- Requires:
  - BAAQMD conduct Health Risk Assessments (30-day review)
  - Risk Reduction Plan development
  - Implementation of Risk Reduction Measures (5 years to implement)
  - Phased Implementation based on cancer prioritization number

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Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities

- Status Update:
  - BAAQMD working on rule implementation procedure document
  - BAAQMD periodically re-assessing facilities to focus on "riskiest" (POTWs remain in Phase 2)
  - Phase 2 emissions inventory review anticipated summer 2019-2023
- Potential Next Actions:
  - Take steps to reduce emissions inventory values
  - Verify emission calculations methodology with permit engineer & update concentration data as appropriate

NOTE: Emissions estimate is on permit invoice from BAAQMD.

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OSHA Permissible Exposure Limit (PEL) for Hydrogen Sulfide

- CA-DOSH's Health Effects Advisory Committee for the development of PELs met Sept 5th, Dec 12th, and Mar 6th
- Discussed lowering the PEL for H_2S from 10 ppm to 5 ppm
- BACWA supported a letter in response to CA-DOSH to reduce to 5 ppm
- Health Effects Advisory Committee will continue to discuss

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Standard Permit Conditions: Anaerobic Digesters

- Updated August 2017
- Includes specific list of digester gas discharges that are not considered permit violations
- Requires compliance with other BAAQMD regulations (even if allowed by permit, must comply with other regulations)

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SAN JOSE'S BAAQMD PERMITTING PROCESS: CO-GENERATION PROJECT

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LUNCH ("PI" DAY)

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Upcoming AIR Committee Meetings

- 2018
  - BAAQMD Annual Meeting Topics:
    TBD (Previously June 6th)
  - BACWA-BAAQMD-RWQCB Meeting Topics

- **JOIN US FOR THE TOUR OF:**
  San Jose's Zero Waste Facility!

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THANK YOU FOR JOINING US!