



AIR ISSUES & REGULATIONS COMMITTEE
A Committee of the Bay Area Clean Water Agencies

Quarterly Meeting

January 16, 2019

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Agenda

- Air District Updates:
 - Rule 11-18 (Reduction of Risk from Toxics at Existing Facilities)
 - Flare Rules (SCAQMD Flare Rule 1118.1)
 - Permit Handbook Revisions
- AB 617: Community Air Protection Program
- FY '20 Budget & Tasks Discussion
- Strategy for Engaging with BAAQMD Staff
- GHG Updates
 - SB 1383: Statewide SLCP Reduction Strategy Implementation
 - BAAQMD's Regulation 13
 - BAAQMD Climate Tech Review & Financing
- Member Updates



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BAAQMD RULE UPDATES



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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 WWTPs:
 - Process emissions
 - Engines and incineration
 - Standby generators (Generator only facilities exempt if RAL < 250)
- Phased implementation based on cancer prioritization –
All WWTPs in Phase 2
- If triggered, requires:
 - BAAQMD conduct an HRA (30-day review)
 - Risk Reduction Plan development
 - Implementation of Risk Reduction Measures
(5 years + 5 years to implement)



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

- Status Update:
 - 11-18 Implementation Working Group meeting quarterly
 - Technical Dispute Resolution Committee members identified (active and retired regulators from other Air Districts)
- Next Actions:
 - Monitor progress of Phase 1 via Working Group
 - Update emissions inventory values (Subgroup Update!)
 - Verify emission calculations methodology with permit engineer & update concentration data as appropriate
 - Track AB 617 regulation development



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SCAQMD Non-Refinery Flare Rule

- SCAQMD
 - Rule 1118.1: Control emissions from non-refinery (biogas) flares
 - Proposed amendments:
 - Reduce NOx and VOCs & minimize routine flare use (<70% capacity)
 - Maximize use of biogas (i.e., 85-98%!)
 - Includes thermal oxidizers & phasing out old flares with BACT standard non-refinery flares
 - Rule approved January 4th
 - SCAQMD staff to begin looking into potential impact of co-digestion with food waste (SB 1383)
 - SCAQMD to meet in Sacramento during “Rethink Methane Symposium”, February 27th with other air districts and agencies – member(s) should attend



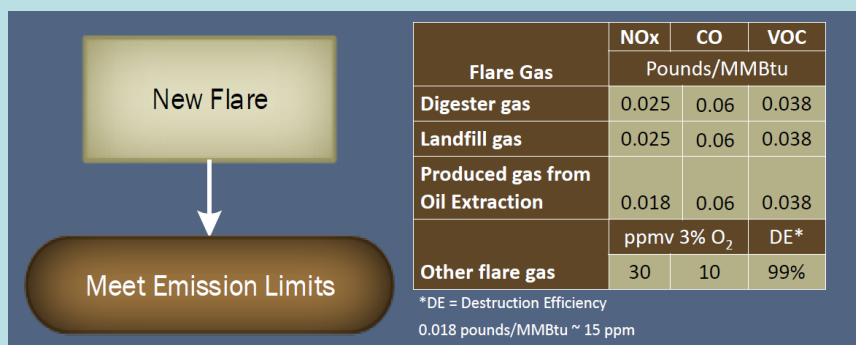
SCAQMD Non-Refinery Flare Rule

Following SCAQMD process...

- SJVAPCD
 - Flare Rule 4311: Limit emissions of volatile organic compounds (VOC), NOx, and sulfur oxides (SOx) from operation of flares
- BAAQMD (New Rule by 2020)
 - Reduce NOx & require biogas/non-refinery flares meet lowest available emissions reduction (LAER) level



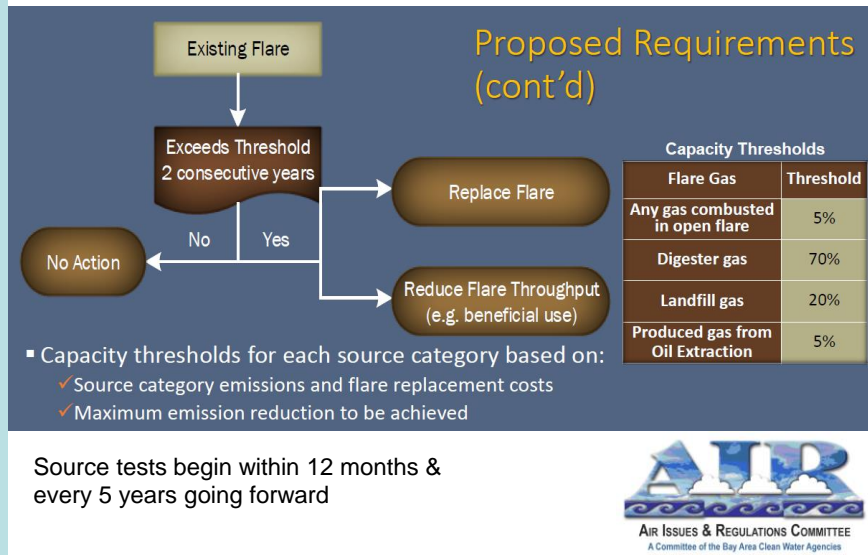
SCAQMD Non-Refinery Flare Rule



Comment	Response
Allow installation of new higher emitting flares (0.06 lb/MMBtu) at minor source wastewater treatment plant	Consideration to allow higher limit for minor source digester gas flares with a capacity threshold



SCAQMD Non-Refinery Flare Rule



AB 617: Community Air Protection Program

- CARB to harmonize community air monitoring, reporting, & local emissions reduction programs for CAPs and TACs (and GHGs).
- October 1, 2018, CARB sets direction for:
 - Assessing community exposure – select 10 high risk communities →
 - Establishing criteria for air monitoring
 - Identifying source contributions and strategies for emissions reduction
 - Steering Committee involvement!**
- By October 2019:
 - Establish emission reduction targets, schedule, & enforcement programs
 - Air Districts to submit annual progress reports to CARB in 2019 for 2018



Standard Permit Conditions & Permit Handbook Revisions

- BAAQMD suggested BACWA provide edits
 - Standard Permit Conditions
 - Waste Handling (food waste)
 - Digestion
 - Cogeneration
 - Permit Handbook
- Timeline for edits unspecified – need to be responsive to inform rule development under Regulation 13 (climate pollutants)



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FY '20 Budget & Tasks Discussion

- FY '19 Budget = \$50,000 → FY '20 Budget = \$75,000?
- Increased activities in FY "20
 - Rule 11-18, Phase 2 preparations needed
 - Implementation of AB 617 (Steering Committee involvement)
 - Regulation 13 development (specifically with respect to digestion issues.
- With increased activities, likely need increased meeting frequency (e.g., every other month)



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Strategy for Engaging BAAQMD Staff

- Upcoming meeting opportunity in March (targeting the 7th at 2 pm): Regulation 13 Development
- Key BAAQMD staff in general:
 - EO (Jack Broadbent)
 - Deputy EO's (Damian Breen & Greg Nudd)
 - TIO: Lucian Go, Replacement
 - Permitting: Brenda Cabral (Simrun, Alfonso, Flora), Victor Douglas
 - Climate Strategy: Idania Zamora, Chad White, Misha, Brian Butler
- Communication Coordination
 - BACWA Member share/exchange prior to responding to BAAQMD?
 - Target consistent responses from members
 - Unified voice



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GHG UPDATES



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Organic Waste Diversion - SB 1383: SLCP Reduction Strategy Implementation

- 40% methane reduction by 2030
(relative to 2013 levels)
- Organic waste diversion from landfills
(includes biosolids, digestate, and sludges)
 - 50% by 2020 (relative to 2014 levels)
 - 75% by 2025 (relative to 2014 levels)
- CEC/CPUC to incentivize biogas production/use
- **45-day comment period to begin January 18th**
- Adoption 2019 – Effective 2022 –
Enforceable 2024



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SB 1383: Proposed Organic Waste Reduction Regulations & Economic Analysis

Proposed Regulation

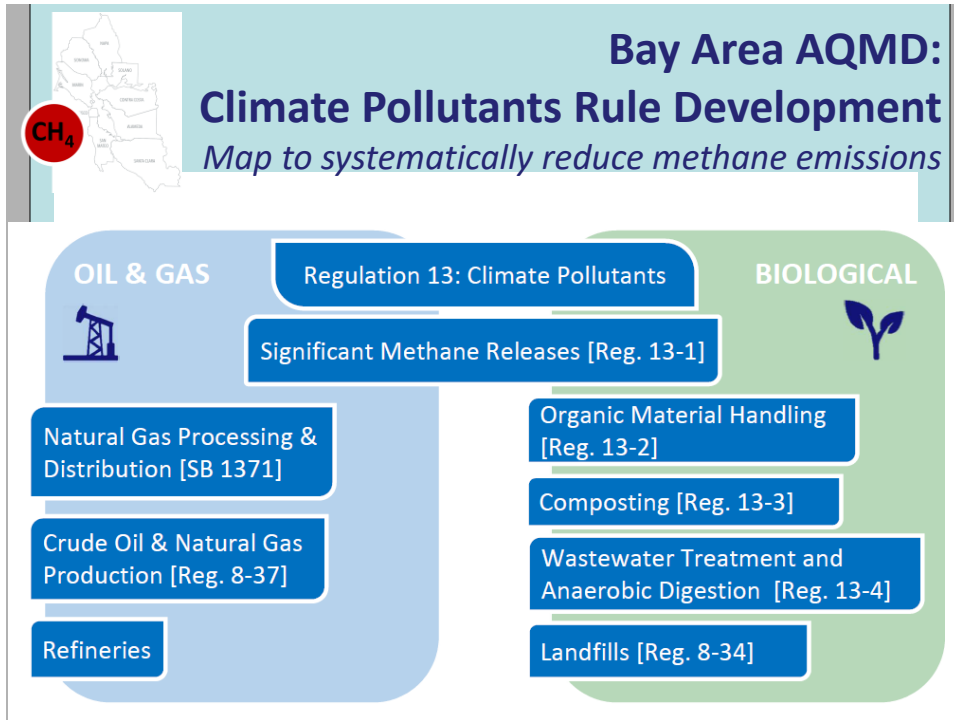
- Emergency disposal to landfills for 90 days
- Limits on local ordinances
- Jurisdictions and POTWs to negotiate whether biosolids can continue to be landfilled
- Need to expand procurement beyond compost and biogas (RNG) as transportation fuel

Economic Analysis

- Regional Economic Models, Inc.
- January 1, 2019 through full implementation (2030)
- CalRecycle is not pushing for our feedback since it is a “macro-scale” analysis and stated may be off by a billion dollars



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Bay Area AQMD Regulation 13: Climate Pollutants Rule Development
Map to systematically reduce methane emissions

Rules and Regulations	GHGs	Odors	VOCs	Toxics
Regulation 13: Climate Pollutants	N ₂ O, PCPs	n/a	n/a	n/a
Rule 13-1: Significant Methane Releases	CH ₄	Yes	Yes	Yes
Rule 13-2: Organic Material Handling	CH ₄	Yes	Yes	Yes
Rule 13-3: Composting Operations	CH ₄	Yes	Yes	Yes
Rule 13-4: Wastewater Operations*	CH ₄ , N ₂ O	Yes	Yes	Yes
Rule 8-34: Solids Waste Disposal Sites*	CH ₄	Yes	Yes	Yes

* Future rule development efforts.



Bay Area AQMD Regulation 13: Climate Pollutants Rule Development

Map to systematically reduce methane emissions

- **Next Steps:**

- Methane Expert Panel meetings
- Rule 13-1 to go to Public Hearing in 2019
- Workshops for 13-2 and 13-3 to be held in first quarter of 2019, to Board of Directors in third quarter 2019
- 13-4 rule development to begin in late 2019

- Meeting with BAAQMD staff **March 7th** to provide “anaerobic digestion: 101”



BAAQMD Climate Technology Review

Climate Technology Review

An Assessment of Opportunities to Reduce
Greenhouse Gas Emissions at Stationary Sources
in the Bay Area

October 2018



Table ES-1. Number of Mitigation Measures by Industry Sector

Industry	Subsector	Measures
Agriculture	Soil Management	5
	Enteric Fermentation	1
	Manure Management	5
Buildings	Commercial	35
	Residential	19
Electronics	Semiconductors	10
Petroleum Systems	Natural Gas Compression	1
	Refining - Combustion	8
	Refining - Other	18
Metals	Iron and Steel Production	6
Minerals	Cement Production	14
Power Generation	Batteries	2
	Combined heat and power	6
	Fuel Cells/Electrolyzers	1
Waste	Power Plants	1
	Composting	8
	Landfills/Combustion	15
	Wastewater	12
Other	Asphalt Drying	3
	Carbon Capture	1
	Food Processing	8
	Glass Production	8
	Industrial Gas Suppliers	1
Total		188

BAAQMD Climate Technology Review

- 12 wastewater sector mitigation measures identified (Table 16)
 - Annamox
 - Microalgae to replace denitrification
 - Nitrification tank gas capture/co-firing
 - Adjust operations to reduce GHGs in sludge path
 - Geomembrane cover for AD
 - Methane capture/flare from activated sludge
 - Bioscrubber for N₂O process emissions
 - Microalgae cultivation for CO₂ capture in sludge stream
 - Thermophilic AD
 - Bioprocesses for oxidation of CH₄
 - Temperature-phased AD
 - CANDO process

***Climate Tech Kick-Off at BAAQMD:
January 22nd, 9 am - noon***



MEMBER UPDATES



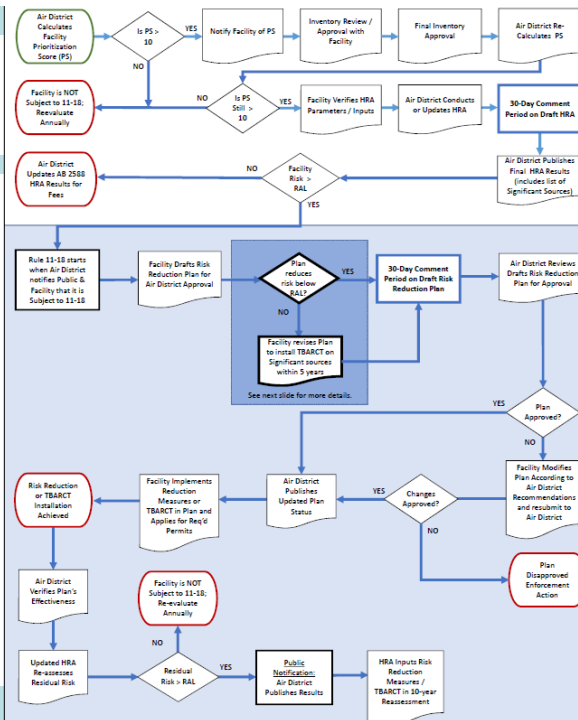
THANK YOU!



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Rule 11-18 Process Flowchart



TBARCT Process Flowchart

