



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

**Quarterly Meeting**  
**June 10, 2020**

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## Agenda

- COVID-19: Regulatory Contingency Planning
- Toxics: AB 617 & AB 2588 Updates – Wastewater Sector Response
- BAAQMD Rule 11-18: Reduction of Risk from Toxics
- SB 1383: Statewide SLCP Reduction Regulations Status
- BAAQMD's Proposed Regulation 13 (Climate Pollutants)
- Member Updates/Open Discussion
- NEW RESEARCH – Guest Speakers on:  
Assessing Emissions from Wastewater Treatment Plants
- Adjourn

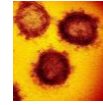


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# COVID-19 Impacts: Regulatory Contingency Planning



- BAAQMD accommodations
  - No changes to permits, use of discretion with enforcement authority
- BACWA is compiling a list of scenarios and “asks” related to our sector’s response to the pandemic
  - Document any need to diverge from permit compliance (i.e., variance)
- CalWARN has been activated – mutual aid/assistance agreement for sharing resources

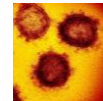
## Water/Wastewater Agency Response Network California Regions



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# COVID-19 Impacts: Regulatory Contingency Planning



- Central Valley Clean Water Association
  - Changing staff schedules
  - Reduction in compliance monitoring
  - Economic impacts look to be significant
- Southern California Alliance of POTWs
  - Commercial lab backlog causing lag in getting results back
  - Peak flows are later in the morning
  - Stormwater backing off on inspections
  - Experiencing virtual inspections



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## AB 2588: Air Toxics "Hot Spots" Program Updates Underway

- Enacted in 1987
- Goals of the Act/Program are to:
  - Collect emission data (existing list of >600 compounds)
  - Identify facilities having localized impacts
  - Ascertain health risks
  - Notify nearby residents of significant risks
  - Reduce significant risks to acceptable levels
- 2020 updates include expanding the compound list by >700 compounds (full list to be >1300 compounds) – KEY ISSUES:
  - AB 617 may require reporting of these compounds, but...
  - Many of the new compounds do not have known toxicity levels
  - Many of the new compounds do not have known emission factors

*In their absence, ARB proposes using factors determined for "similar" compounds for use in Reporting and Health Risk Assessments!*

The draft default emission factors will be used as a resource for permitting staff, but facilities can perform source testing to obtain site- or sector-specific data, if requested.



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## Toxics: CARB's Approach

- Proposing fugitive emissions measurement from "open" types of sources (includes WWTPs)
- Proposing a "two-step" process for sources that receive waste streams
  1. An initial, broad qualitative screening for detectable chemicals
  2. Review and determination of a list of chemicals for quantitative testing
- Also allows for use of a "pooled" source test approach among similar facilities



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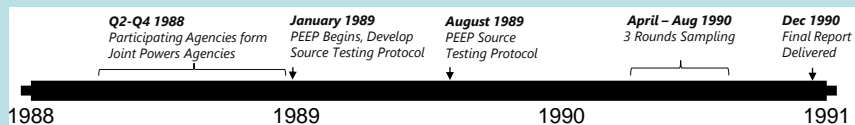
# Toxics: 1990 Pooled Emissions Estimation Program (PEEP)

- Provided participating agencies a standard estimation methodology for determining air toxics emissions from their respective facilities.
  - 25 POTWs across CA formed a JPA
  - 18 unit processes (liquid, solid, gas)
  - 20 sites (managed as north and south)
  - 3 rounds of sampling over 5 months
  - Project duration: ~2 years (1989-1990)
  - Budget: \$2.5M (1990)
- Result: Emission factors for a short-list of targeted compounds determined by participating agencies and air district staff



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# Toxics: 1990 PEEP Timeline Details



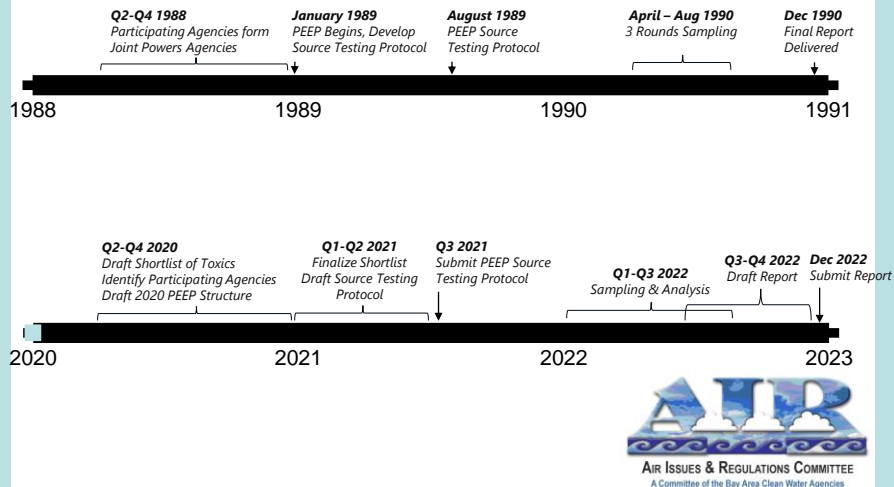
**Compounds targeted:**  
20-25 Volatile Organic Compounds (VOCs) for raw wastewater, non-combustion processes, and combustion processes.

- Processes targeted:**
- Aerated Grit Chamber
  - Primary Sedimentation Tanks
  - Diffused Air Activated Sludge
  - Mechanically-Mixed Air Activated Sludge
  - Pure Oxygen Activated Sludge
  - Trickling Filters
  - Secondary Clarifiers
  - Tertiary Filters
  - Chlorine Contact Tank
  - Dechlorination Facilities
  - Dissolved Air Flotation Thickeners
  - Gravity Sludge Thickeners
  - Anaerobic Digesters
  - IC Engines
  - Digester Gas Fired Boilers
  - Belt Filter Press
  - Sludge Centrifuge
  - Sludge Drying Beds



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## Toxics: 1990 & (potential) 2020 PEEP Timelines



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## Toxics: Next Steps

- CASA Toxics Subgroup meeting June 15<sup>th</sup> to review GC/MS screening data from LACSD effort
- Determine if the data is a good basis for developing a shortlist of compounds
- Once we have a shortlist of compounds **AND** approved sampling and analytical methods (from OEHHA), **then** draft an approach to perform a pooled emissions estimation program (PEEP) to update outdated emission factors and determine emission factors for new compounds
- Toxicity factors will still need to be developed by CARB/OEHHA before risk assessments can be performed
- BACWA Executive Board seeks your input!



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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
- Phased implementation based on cancer prioritization – WWTPs in Phase 2 (starting in 2020)
- **ISSUE:** Emission factors are outdated (based on old influent data) and may result in erroneously high Prioritization Scores
- If WWTP triggers Rule 11-18 requires:
  - Health Risk Assessments (18-month process)
  - Risk Reduction Plan development (18-month process)
  - 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

- Actions to Monitor:
  - Final implementation schedule from BAAQMD
  - Watch for email from BAAQMD, will send data requests in quarterly batches – expect Phase II sites with Priority Scores 50+ to be first (starting in 2020)
  - Plants expected to respond to data requests (2-4 months)
- AIR Emissions Inventory Subcommittee
  - Need members to run the data collection and emissions inventory spreadsheet template
- Still need to address emission factors...



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## SB 1383: Short-Lived Climate Pollutant Reduction Regulation

- 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



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## Formal rule-making concluded January 18<sup>th</sup>: *Proposed SLCP Reduction Regulations*

- Updates:
  - Final Draft released April 20<sup>th</sup>, CASA did not find edits in addition to those we have already commented on
  - Greg Kester to draft white paper and host a webinar to explain the regulatory requirements and implications of those
  - No indication that implementation of the regulation will delay due to COVID
- Next Steps
  - Adoption targeted for July 1, 2020
  - State to start enforcement on jurisdictions January 1, 2022
  - Local jurisdictions to start enforcement January 1, 2024
  - Compliance by January 1, 2025



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## Bay Area AQMD Regulation 13: Climate Pollutants Rule Development

### Rules and Regulations

Rules and Regulations	GHGs
Regulation 13: Climate Pollutants	
Rule 13-1: Significant Methane Releases	CH <sub>4</sub>
Rule 13-2: Organic Material Handling	CH <sub>4</sub>
Rule 13-3: Composting Operations	CH <sub>4</sub>
Rule 13-4: Sewage Treatment & AD*	CH <sub>4</sub> , N <sub>2</sub> O
<i>Rule 13-5: Hydrogen Plants</i>	CH <sub>4</sub>
<i>Rule 8-34: Solids Waste Disposal Sites*</i>	

\* Future rule development efforts.

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## Bay Area AQMD Regulation 13: Climate Pollutants Rule Development


### Rules and Regulations

Rules and Regulations	GHGs	Odors	VOCs	Toxics
Regulation 13: Climate Pollutants				
Rule 13-1: Significant Methane Releases	CH <sub>4</sub>	Yes	Yes	Yes
Rule 13-2: Organic Material Handling	CH <sub>4</sub>	Yes	Yes	Yes
Rule 13-3: Composting Operations	CH <sub>4</sub>	Yes	Yes	Yes
Rule 13-4: Sewage Treatment & AD*	CH <sub>4</sub> , N <sub>2</sub> O	Yes	Yes	Yes
<i>Rule 13-5: Hydrogen Plants</i>	CH <sub>4</sub>	Yes	Yes	Yes
<i>Rule 8-34: Solids Waste Disposal Sites*</i>				

\* Future rule development efforts.

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## Bay Area AQMD Regulation 13: Climate Pollutants Rule Development

**Rule Development Suspended due to COVID-19**


Rule	Next Workshop	Board Presentation	Notes
<b>13-1: Significant Methane Releases</b>	TBD	TBD	Tabled indefinitely, focus on source-specific rules first
<b>13-2: Organic Waste Handling</b>	None	Q2 2020?	Focus on organic material handling: Material Recovery Facilities, Transfer Facilities, Chip & Grind Facilities.
<b>13-3: Composting Operations</b>	Q2 2020	Q4 2020?	Draft language in development.
<b>13-4: Sewage Treatment &amp; Anaerobic Digestion</b>	Q2 2020	Q4 2020 (likely 2021)	BACWA requested involvement to provide input on draft language and workshop report. Draft rule to consider biogas produced/collected, minimizing other pollutants, flare requirements, record keeping, reporting requirements, etc.
<b>13-5: Hydrogen Plants</b>	Q1 2019	Q3 2020	Focus on hydrogen production at petroleum refineries.
<b>8-34: Solid Waste Disposal (Landfills)</b>	Q2 2020	Q4 2020	Focus on methane from landfills – BAAQMD to align with state and federal requirements.

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## Bay Area AQMD Regulation 13: Climate Pollutants Rule Development

- Met with BAAQMD staff
- BAAQMD considering an unsolicited proposal for identifying / developing options for mitigating methane and VOC emissions
  - Anaerobic digesters and ancillary equipment
  - Other treatment processes (i.e., lagoons)
- Engaging BACWA to support BAAQMD in an effort to develop a baseline understanding of current practices and emissions



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## Member Updates/Open Discussion

- BAAQMD Fees
- BAAQMD and Source Testing
- Aligning annual BAAQMD permit renewals with the CARB CTR reporting



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Mark A. Zondlo and Z. Jason Ren (Princeton University) and  
Francesca M. Hopkins (UC-Riverside)

## **ASSESSING EMISSIONS FROM WASTEWATER TREATMENT PLANTS**



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# Thank you!

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