



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

Quarterly Meeting
January 13, 2021

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Agenda

- COVID-19: Resources and Meetings
- BAAQMD-BACWA Leadership Meeting Summary
- Retroactive BACT for New Standby/Emergency IC Engines
- Toxics: AB 617 & AB 2588 Updates
- BAAQMD Rule 11-18: Reduction of Risk from Toxics
- SB 1383: SLCP Reduction Regulations and Implementation Status
- BAAQMD and Other Efforts to Monitor/Reduce CH₄ and N₂O
- CARB Advanced Clean Truck and Fleet Rules
- Open Discussion/Member Updates
 - Compound concentration limits in permits
- Adjourn



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COVID-19

- CASA website for resources: <https://casaweb.org/covid-19/>
- January 27th [webinar](#)
- SWRCB wastewater factsheet
- WEF biosolids factsheet
- Wastewater-based epidemiology (WBE) →
 - CDC managing national database – National Wastewater Surveillance System DCIPHER
- Reevaluate In-person meetings as conditions allow



Last Updated: 12/1/20

COVID-19 is impacting the wastewater community in a variety of unique and challenging ways. Below are a series of resources that may be useful for reference for local wastewater agencies as we navigate through this crisis. As a reminder, this information represents the state of our knowledge at a point in time and should be used as a resource for exploring additional actions. Circumstances are always subject to change, and agencies must make their own decision about what course appropriately balances public safety while ensuring the continued delivery of critical infrastructure services.



BAAQMD-BACWA Leadership

- Partners in...
 - Regulatory development
 - Innovative technology support
 - Funding support
- Mimic BACWA-RWQCB
 - Regularly meetings
 - 1-2 topics per meeting



BAAQMD-BACWA Leadership

- Kick-off leadership meeting: December 7, 2020
- Discussed where state and local efforts are not in alignment
 - Methane Reduction
 - CalRecycle's SB 1383 regulations
 - BAAQMD Regulation 13
 - Air Toxics
 - CARB AB 617 / AB 2588 regulations
 - BAAQMD Rule 11-18



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Revised BACT for New Standby/ Emergency IC Engines

- New BACT issued December 22, 2020
- Applies to diesel backup engines ≥ 1000 bhp
- Applies to new/open applications deemed complete after January 1, 2020
- If Authority to Construct already issued, new BACT does not apply (even if Permit to Operate has not been issued)



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Revised BACT for New Standby/ Emergency IC Engines

- BACT2 for Diesel Engines ≥ 1000 bhp
- EPA Tier 4 emission standards

Pollutant	BACT 2 limit
POC	0.14 g/bhp-hr
NO _x	0.5 g/bhp-hr
SO ₂	CARB Diesel Fuel (15 ppm sulfur)
CO	2.6 g/bhp-hr
PM-10	0.02 g/bhp-hr



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Revised BACT for New Standby/ Emergency IC Engines

What if the engines that are proposed in the application do not meet the new BACT2 standards?

- Install a diesel particulate filter to meet the particulate matter emissions limits.
- Install a selective catalytic reduction system to meet the NO_x emissions limits.
- Purchase an EPA-certified or EPA-compliant Tier 4 engine.



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Criteria Pollutants & Toxics Reporting and Air Toxics “Hot Spots” Program Updates

- Criteria Air Pollutant and Toxic Air Contaminant Reporting (CTR) *Requires WWTPs to report full Hot Spots compound list (>600 compounds).*
 - Implements statewide annual reporting of criteria air pollutant and toxic air contaminant emissions data from facilities. It establishes new policies to improve emissions inventory data (critical to understanding sources of emissions contributing to adverse health risks or other impacts at the local, regional, and statewide level).
- Air Toxics "Hot Spots" Program *Expanding Hot Spots compound list by over 10,000 compounds (including functional groups).*
 - Establishes a statewide program for the inventory of air toxics emissions from individual facilities, as well as requirements for risk assessment and public notification of potential health risks.

ISSUE: As written, CTR may require Wastewater Sector to test for and report ALL (>10,000) compounds listed under the updated Hot Spots Program!



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CTR & Air Toxics: WW sector approach to determine relevant toxics for reporting

- Going into the Nov 19th Public Hearing, CARB had...
 - Verbally confirmed WWTPs can report “business as usual” for now
 - Stated the wastewater sector should have until 2026 to perform “two-step process” to determine shortlist of compounds to quantify and report:
 1. GC/MS Scan for Determining Sector-Specific Compound List
 2. Quantification Process (once Sector-Specific Compound List is determined and quantification methods have been approved by CAPCOA and toxicity potential has been determined)

ISSUE: Sept 29th regulatory language had NOT been modified to state that we had until 2026 to perform the two-step process



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CTR & Air Toxics: WW sector approach to determine relevant toxics for reporting

- Actions in preparation for the Nov 19th public hearing
 - Developed comment letter, submitted Nov 16
 - Developed one-page handout for the Board
 - Prepared testimony

Board Member Judy Mitchell directed staff to work with CASA!

- Next Steps
 - 15-Day Changes to be drafted in January, review in February
 - CARB considering justification for sector-by-sector approach
 - POTW and CARB laboratory staff to discuss approaches for Step 1 - screening influent sewage and air emissions (GC/MS)
 - CASA to draft formal outline of Step 2 (emissions quantification) with CARB and Air Districts

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

- Purpose: Protect public from TACs from existing facilities
- Phased implementation based on cancer prioritization – WWTPs in Phase 2 (data requests starting Q2 2021)
- **ISSUES:**
 - Emission factors are outdated (based on old influent data) and may result in erroneously high Prioritization Scores.
 - Grouping of related sites (adjacent landfills, etc)
- If WWTP triggers Rule, it 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 (data requests for Phase 2 being prepared)
 - BAAQMD plans to send data requests in quarterly batches – expect Phase II sites with Priority Score >100 to be first (starting second quarter 2021)
 - Plants expected to respond to data request (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 (SLCP Reduction & 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)
- Next Steps
 - Adopted Nov 9, 2020
 - State to enforce Jan 1, 2022
 - Local jurisdictions start Jan 1, 2024
 - Compliance by Jan 1, 2025



CASA summary and
webinar w/ CalRecycle
(late January)



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BAAQMD Climate Pollutants Regulation



Rule development suspended due to COVID-19 & lack of data

Rule	Next Workshop	Board Presentation	Notes
13-1: Significant Methane Releases	TBD	TBD	Tabled indefinitely to focus on source-specific rules.
13-2: Organic Waste Handling	TBD	TBD	Draft focused on organic material handling: Material Recovery Facilities, Transfer Facilities, Chip & Grind Facilities.
13-3: Composting Operations	TBD	TBD	Draft language in development, not released.
13-4: Sewage Treatment & Anaerobic Digestion	TBD	TBD	BACWA requested involvement to provide input on draft language. Draft rule to consider biogas produced/collected, minimizing other pollutants, flare requirements, record keeping, reporting requirements, etc. BAAQMD is working with BACWA to collect baseline information to inform rule development and reviewing an unsolicited proposal.
13-5: Hydrogen Plants	-	Q3 2020?	Focus on hydrogen production at petroleum refineries.
8-34: Solid Waste	-	Q4 2020?	Focus on methane from landfills – BAAQMD to align with

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BAAQMD Climate Pollutants Regulation



- BAAQMD realized it needed more data, before drafting regulations!
 - Convened the Organic Recovery Technical Working Group (TWG)
 - Seeking summaries of best management practices
- BACWA to develop a baseline understanding of current best management practices for POTWs, specifically:
 - Anaerobic digesters and ancillary equipment
 - Other treatment processes (i.e., lagoons)
- BAAQMD may incorporate BMPs as part of standard permit conditions vs further regulate



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Research: N₂O, CH₄, & NH₃ Emissions from POTWs



- Research by Princeton and UC-Riverside began in April 2020 – N₂O, CH₄, and NH₃ from WWTPs
- Looking for wastewater agency partners
- Requested presentation of the research and what partnering may look like

Assessing wastewater treatment plants and agricultural waste emissions
 Mark A. Zondlo,¹ Z. Jason Ren,^{1,2} and Francesca M. Hopkins³
¹Dept. of Civil and Environmental Engineering, Princeton University
²Andlinger Center for Energy and the Environment, Princeton University
³Dept. of Environmental Sciences, University California at Riverside
 Sensor Technologies to Monitor Energy or Environmental Systems
 Alfred P. Sloan Foundation
 BACWA AIR Committee meeting
 June 10, 2020

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CARB Advanced Clean Vehicle Regulations

Advanced Clean Truck Rule

- Manufacturers to increase sales of electric vehicles thru 2045
- Requires large entities, including local government agencies (fleets of all sizes), report vehicle activity (2019/2020) by April 1, 2021
 - >\$50 million in revenue... and has at least one vehicle; or
 - Owns 50 or more vehicles; or
 - Dispatches 50 or more vehicles into or throughout California; or
 - Is a government agency.
- First of multi-regulation effort targeting electrification

Advanced Clean Fleet Rule

- Targets zero-emission truck and bus fleet by 2045
- To discuss concepts including:
 - Potential purchase requirements for public fleets
 - Establishing a ZEV fleet standard
 - A green fleet contracting strategy
 - Ways to promote innovative transportation technologies.
- Government entities early adopters
- Goal to adopt regulation by end of 2021, implement by 2024



Working with ACWA, CMUA, SCPPA, and SoCalGas to discuss approach

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Open Discussion / Member Updates

- Compound concentration limits in permits



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Thank you!

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