



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

Quarterly Meeting
August 30, 2023

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Agenda

- 2023 State Legislation
- SMAQMD BACT Determination for Input, Emergency Generator >50 hp
- CARB Statewide Air Toxics Two-Step Process
- CARB Scoping Plan Implementation: Carbon Neutrality by 2045
- Methane Review/Monitoring at WRRFs
- BACWA-BAAQMD Implementation Workgroup Updates
- BAAQMD-BACWA Source Test Workshop
- Open Discussion/Member Updates
- Adjourn



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2023 State Legislation Update

- Bills still in the running since February 17th:
 - AB 985 (Arambula D) SJVAPCD: emission reduction credit system
 - AB 1216 (Muratsuchi D) WWTPs: monitoring of air pollutants
 - AB 1550 (Bennett D) Green hydrogen (to be reconsidered next year)
 - AB 1594 (Garcia D) Medium- and heavy-duty ZEV: public agency utilities



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SMAQMD BACT Determination for Input, Emergency Generator >50 hp

- SMAQMD proposed determination would establish Tier 4 as BACT for diesel standby IC engines ≥ 50 hp
- Comments closed August 14th
- Determination forthcoming



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CARB Statewide Two-Step Process: Criteria Pollutants & Air Toxics Reporting

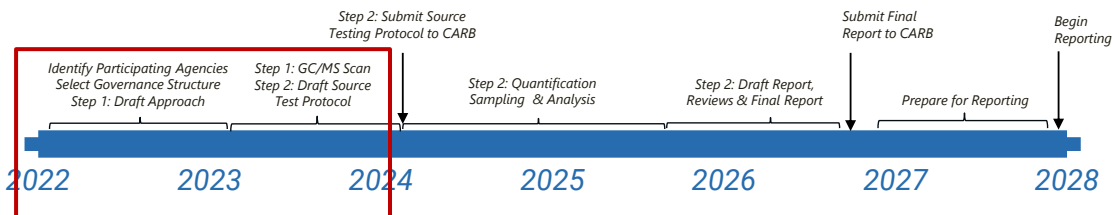
- AB 617 to “harmonize” air monitoring, reporting, & emission reductions from stationary sources across the state
- AB 2588 Hot Spots compound list >1,700 (from >500)
 - Unknown toxicity levels
 - Unknown emission factors
 - Many are not relevant to WWTPs
- Report business-as-usual through 2028 (reporting begins 2029 for 2028 data) but **POTWs must participate in a two-step process (individually or as a group)**
- Perform “two-step process” to determine relevant shortlist of compounds
 - Scan air space of unit processes to determine detectable compounds
 - Perform sampling and analysis to ultimately quantify emissions of detectable compounds (Mimic 1990 Pooled Emissions Estimation Program, PEEP, but broader in scope)

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CARB Statewide Two-Step Process: Criteria Pollutants & Air Toxics Reporting

- Who does this apply to? (actual flow)
 - ≥5 MGD, uncovered primaries
 - ≥10 MGD, covered primaries



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Next Steps

- **2nd meeting with CARB – agenda to focus on:**
 - Schedule, including approach to Step 1 (desktop exercise or narrow scan step)
 - Confirm letter stating two-step process is required for all POTWs whether as a group or alone
 - Confirm message to air districts stating all POTWs can delay reporting new compounds while participating in two-step process
- **Coordinate meetings w/ air districts**
 - Meet with “big 5” and CAPCOA, convene with CARB, confirm Step 1 and field test participants
- **Continue refining list of POTWs – based on average of actual daily flow over years 2019, 2020, and 2021, ~40% lower than permitted flow**
- **Administrative tasks**
 - Confirm governing structure
 - Draft RFQ for hiring Program Manager
- **Early actions led by Air Toxics Subgroup – next meeting: September 13th (to be rescheduled)**



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CARB Scoping Plan Update Targeting Carbon Neutrality by 2045

- Advanced Clean Fleet Regulations Implementation
- SB 1383 Short-Lived Climate Pollutant (SLCP) Reduction Implementation



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CARB Advanced Clean Fleet Regulations Implementation

Applies to gross vehicle weight rating >8,500 lbs (medium- and heavy-duty)

State & Local Government Agency Fleets include cities, counties, special districts, State agencies

- **If NOT considered** a low population county, have >10 vehicles in fleet:
 - January 1, 2024, 50% of vehicle purchases in each calendar year must be ZEVs
 - January 1, 2027, 100% of vehicle purchases in each calendar year must be ZEVs
- **If considered** low population county or ≤10 vehicles in fleet:
 - January 1, 2027, 100% of vehicle purchases in each calendar year must be ZEVs.
- Exemptions/extensions are available but confusing –
CASA will support streamlining the application process.
Please let us know if you are seeking an exemption or extension!



CARB Advanced Clean Fleet Regulations Implementation

High Priority & Federal Fleets Requirements

If you are a WWTP, you can opt your entire medium and heavy-duty fleet into this regulation:

- Allows more time to transition medium- and heavy-duty fleet vehicles (especially if opting into it by Jan 1st, 2024, to avoid having to comply with the State & Local Government Agency Fleets Regulations)
- Allows biomethane fueled vehicles supporting SB 1383 facilities to opt into Milestone Group 3
- Does **NOT** provide for expansion of fleet trucks fueled by biomethane in support of SB 1383 beyond Jan 1st, 2024 (we have offered to demonstrate biogas-to-hydrogen technologies, but need a market for biomethane in the meantime and CARB’s Resolution directed staff to work with us – the Chair said a lead staff will be assigned this year)

Percentage of vehicles that must be ZEVs →	10%	25%	50%	75%	100%
Milestone Group 1: Box trucks, vans, buses w/ two axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035 & beyond
Milestone Group 2: Work trucks, day cab tractors, buses with three axles	2027	2030	2033	2036	2039 & beyond
Milestone Group 3: Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042 & beyond

CARB Advanced Clean Fleet Regulations Implementation

- Next Steps

- Participated in Truck Regulations Advisory Committee (TRAC) meeting Aug 22nd
 - Subcommittees to form on Outreach, Border Communities, Infrastructure Implementation, Rule Provisions, and other issues as needed to meet quarterly and “problem solve”
 - Confirmed TRAC is a separate effort from CASA’s collaboration with State agencies to maintain uses of biogas and successful implementation of SB 1383
- Ongoing updates to CASA’s draft summary reflecting member feedback
- Participating in discussions of early lessons learned (started in SoCal)
- Establishing a small task force for reviews/work sessions as part of responding to TRAC discussions and requests



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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, sludges)
 - 50% by 2020 (relative to 2014 levels)
 - 75% by 2025 (relative to 2014 levels)
- Procurement products and targets (can “unbundle” attributes, use material locally)
- CalRecycle outreach to overturn restrictive County ordinances (preference toward Merced County’s Ordinance)
 - Sutter County considering adjusting their Ordinance from total to partial ban, targeting Class A
 - Meeting September 7th on draft Ordinance
- Article 2 determinations:
 - H Cycle, theoretically produces low-carbon H using thermal conversion technology – resubmitted and in 30-day comment period (8/16 – 9/15)
 - Lystek Thermo-Chemical HP – CalRecycle determined technology already complies with SB 1383

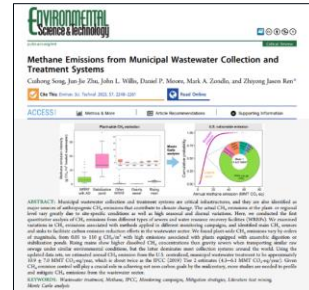


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Methane Review/Monitoring at WWTPs

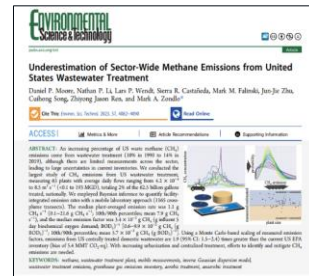
1. Methane Emissions from Municipal Wastewater Collection and Treatment Systems

Cuihong Song, Jun-Jie Zhu, John L. Willis, Daniel P. Moore, Mark A. Zondlo, and Zhiyong Jason Ren
[doi: 10.1021/acs.est.2c04388](https://doi.org/10.1021/acs.est.2c04388)
 Published: February 3rd, 2023



2. Underestimation of Sector-Wide Methane Emissions from United States Wastewater Treatment

Daniel P. Moore, Nathan P. Li, Lars P. Wendt, Sierra R. Castaneda, Mark M. Falinski, Jun-Jie Zhu, Cuihong Song, Zhiyong Jason Ren, and Mark A. Zondlo
[doi: 10.1021/acs.est.2c05373](https://doi.org/10.1021/acs.est.2c05373)
 Published: February 27th, 2023



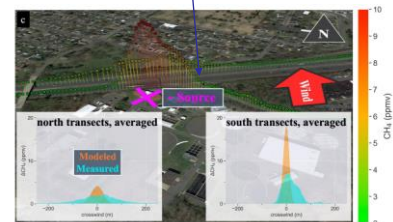
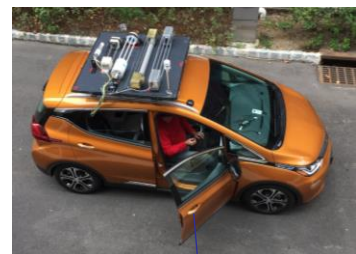
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Methane Review/Monitoring at WWTPs

- Two Princeton methane studies led by Mark Zondlo and Z. Jason Ren
 - Two approaches → same conclusion
 - Overall Conclusion: CH₄ emissions from WWTPs are significantly **underestimated** compared to IPCC/EPA estimates (however, <1% of GHGs in US inventory is related to WWTPs)
- Next steps
 - Emailed researchers for follow-up discussions
 - Let us know if you've been contacted by UC–Riverside (Francesca Hopkins) to research your emissions – partners with Princeton, performing separate research

Princeton Mobile Lab



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BACWA-BAAQMD Implementation Workgroup Summary of June 12th

- Engage in BAAQMD Strategic Planning
- Extensions on source testing from enforcement staff, not source testing staff
- Edits to Standard Permit Conditions
- Standard formatting for source test results
- BAAQMD / CASA Air Toxics Study coordination
- Review PM 2.5 Local Risk Method
- Nitrous Oxide Emissions
- Report to BAAQMD Board



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BACWA-BAAQMD Implementation Workgroup Draft Agenda Topics for September 18th

- Status of Report to BAAQMD Board
- Engaging in BAAQMD Strategic Planning (Q4?)
- Edits to Standard Permit Conditions – Next process? Disinfection?
- BAAQMD / CASA Air Toxics Study coordination
- Nitrous Oxide Emissions
- Other topics?



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BAAQMD-BACWA Source Test Workshop November 6th

- Draft Agenda Items
 - Goals of source testing (not just compliance, discussing where else source test data is used)
 - Common themes (onsite issues, reporting, QA/QC)
 - Specific methodologies as they apply to POTWs
 - Q&A
- Identify “centrally located” facility with virtual meeting capabilities
- Potential for ongoing coordination/meetings



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Open Discussion / Member Updates

- Compliance Tip: Request an Engineering Evaluation upon receiving a new permit!
- Other topics?

- **Next Quarterly Meeting:** December 13th



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Thank you!

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