



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

Quarterly Meeting
August 20, 2025

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Agenda

- Introductions
- BACWA-Bay Area Air District (Air District) Implementation Workgroup
- Engineering Program Manager Pilot Program
 - *Engineering Program Manager Outreach Webinar TODAY at 1:30P*
- Air District Source Testing for Compliance Purposes
- Air District Rule Development
- CARB Statewide Air Toxics Pooled Emissions Study
- Fugitive Methane Research Project (Max Kessler, Stanford)
- CARB Advanced Clean Fleet Regulations Implementation Update
- 2025 State Legislative Update
- AIR Committee Chair Interest
- Open Discussion/Member Updates
- WCW Clean & Green Project (Aaron Winer, WCW)
- Adjourn (Next Meeting: November 19, 2025)
- Lunch/Facility Tour



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BACWA-Air District Implementation Workgroup Updates from July 14th Meeting

- Outlook on Engagement
 - Update from Air District on Engineering Project Manager Position
 - Air District Source Testing for Compliance Purposes
 - Update from Air District on Strategic Plan and Resulting Rulemaking Priorities
 - Update from Air District on Anaerobic Digester White Paper
 - Updates from Air District on Status of Rule 11-18 Amendments
 - Update from BACWA on the CASA Statewide Air Toxics Pooled Emissions Study Coordination
 - Update from BACWA on Status of Edits to Standard Permit Conditions
 - Update from Air District on targeted inspection permit pilot
- Other Opportunities for Collaboration between BACWA and Air District



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BACWA-Air District Implementation Workgroup Upcoming on October 20th

- Possible Topics
 - BACWA to provide additional feedback on Engineering Project Manager Position
 - Air District Source Testing for Compliance Purposes
 - Update from Air District on Strategic Plan and Resulting Rulemaking Priorities
 - BACWA to provide additional feedback on Anaerobic Digester White Paper
 - Updates from Air District on Status of Rule 11-18 Amendments
 - Update from BACWA on the CASA Statewide Air Toxics Pooled Emissions Study Coordination
 - Update from BACWA on Status of Edits to Standard Permit Conditions
 - Update from Air District on targeted inspection permit pilot
- Suggestions for other topics?



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Engineering Program Manager Pilot Program

- Three Year Pilot Program
- Two positions approved
- Job description under development
- Each position might handle 5-10 facilities



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Engineering Program Manager Pilot Program

Engineering Program Manager: Pilot

Engineering Program Managers would:

- Work with applicants with complex permit applications prior to submittal.
- Keep projects on a schedule.
- Coordinate timely exchange of information.
- Resolve roadblocks and elevate for management decision as needed.

Funding and Pilot Phase

- The pilot program will run for three years, during which facilities will fund the assigned positions.
- After the pilot phase, the program may transition to a voluntary fee-based model in FY 2030.



Key Benefits for Facilities

- Faster Permit Processing – Reduces delays and improves approval timelines.
- Pre-Application Guidance – Helps applicants prepare more complete applications.
- Dedicated Expertise – Engineering Program Managers provide specialized support.
- Greater Transparency – Facilities receive clear expectations and regular updates.
- Support for Emerging Technologies – Assistance to participating facilities in permitting new technologies such as renewable energy, carbon capture, and other innovative projects.

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BACWA Feedback So Far

- Initial feedback
 - Potential considerations to enhance effectiveness
 - Concerns about the pilot program/engineering program manager position
 - Questions about the engineering program manager position
 - Questions about participation and selection
 - Questions regarding permit assistance
 - Questions regarding funding and pilot program
 - Questions about what success is to the Air District
- Webinar today at 1:30P
 - [Register here](#)
- Other Comments/Thoughts/Questions?



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Engineering Program Manager Pilot Next Steps

- Air District Staff solicits interest from facilities that typically have complex permit applications
- Staff develops selection criteria
- Staff develops funding agreement
- Staff hires additional staff
- Air District implements pilot program (3 years)
- BACWA is looking for any feedback
 - Email sent to listserv on August 8th with additional information



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Air District Source Testing for Compliance Purposes

- Required Source Testing and Reporting
 - BACWA requested better communication
 - Source Test said “invalid” tests are not always NOV; Compliance & Enforcement decides based on information from Source Test
 - “Disposition Memo” provided to testers – could be shared with facility
 - Lengthy Air District review times and subsequent rejected reports without opportunity to retest within required window
- Air District to conduct Source Test workshop with Source testing companies with the goal of developing policies for testers and facilities.
 - Air District wants to work to avoid repeated issues so that reports are acceptable and approvable.

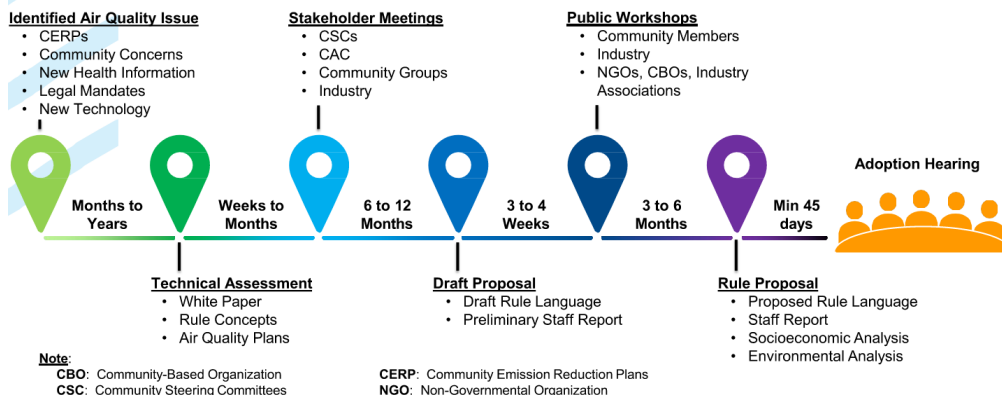


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Air District Rule Development

Rule Development and Public Engagement



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Air District Rule Development

- Permit Streamlining regulations (Regulation 2) to be "bumped up" as directed by Air District Board
- "Permit Task Force" to be established. BACWA asked to participate.
- Anaerobic Digestion White Paper – draft for public comment expected October 2025
- Rule 11-18 Amendments – Draft expected today!



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CARB Statewide Air Toxics Pooled Emissions Study: Criteria Pollutants & Air Toxics Reporting (CTR)

- AB 617 and AB 2588 were updated to "harmonize" air monitoring, reporting, & emission reductions from stationary sources in CA for a long list of compounds
- **POTWs must participate in a two-step process (individually or as a group) to determine a shortlist of compounds to be monitored and reported**
 1. Scan air space of unit processes to determine detectable compounds
 2. Perform sampling and analysis to ultimately quantify emissions of detectable compounds (Mimic 1990 Pooled Emissions Estimation Program, PEEP, but broader in scope)
- Report business-as-usual through 2028 while performing two-step process (reporting begins in 2029 for 2028 data)



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CARB Statewide Air Toxics Pooled Emissions Study: Latest PES Activities

- Two-step process is being achieved in two Phases
 - 1) Develop plan to perform two-step process (**current activity**)
 - 2) Scan & quantify emissions (according to approved plan for performing two-step process)
- Steering Committee presented approach to Air Districts for feedback
 - SCAQMD, San Diego APCD, San Joaquin Valley APCD, and Bay Area Air District support approach
 - Met with CAPCOA, which formed a CTR Uniformity Group to support review/approval of plan
 - Met with CARB's team to discuss their feedback on our approach
 - CAPCOA met (with CARB in attendance) to share their support for our approach
- Steering Committee and Yorke team working on draft plan to be submitted to CAPCOA, then to CARB.



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Updates & Next Steps

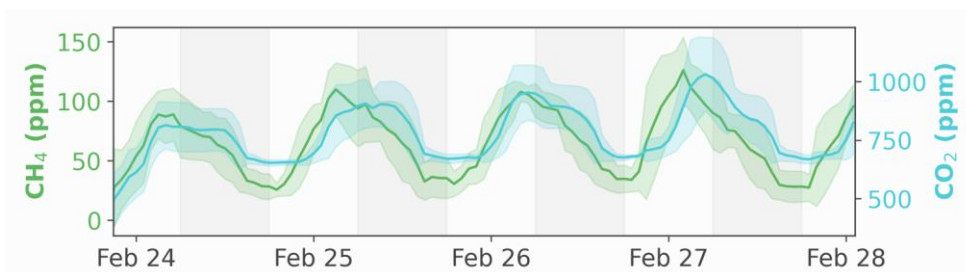
- BACWA invoicing impacted agencies
- Fee schedule remains unchanged
- CASA's Air Toxics Subgroup open to all PES participants - September 10th

FY 2024: Pay July 1, 2024	FY 2025: Pay July 1, 2024	FY 2026: Pay July 1, 2025*	FY 2027: Pay July 1, 2026
\$200 per MGD	\$1,000 per MGD	TBD, budget ~\$1,250 per MGD	TBD, budget ~\$1,250 per MGD

*BACWA is fronting costs for its members and will include amount in annual invoices to individual agencies.



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Addressing fugitive methane emissions from wastewater

Lab-to-field research proposal

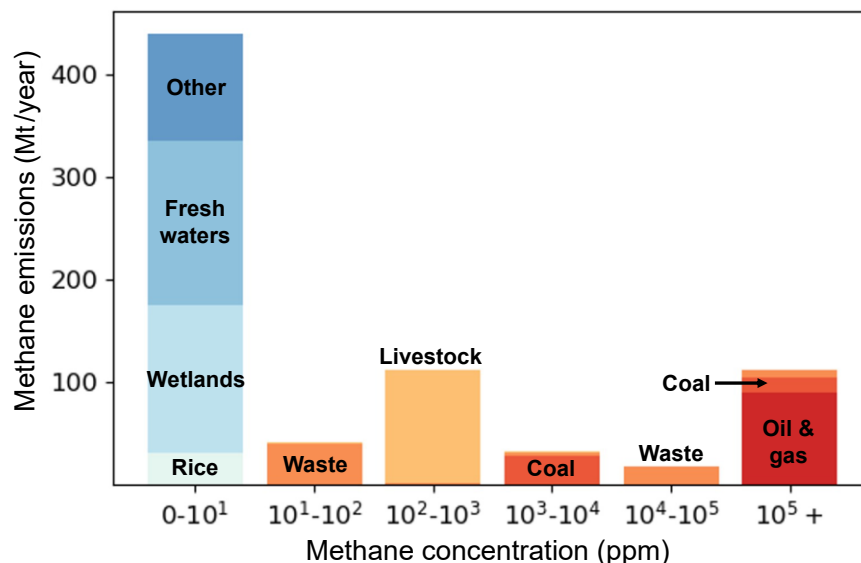
Max Kessler, PhD Candidate

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Global methane emissions



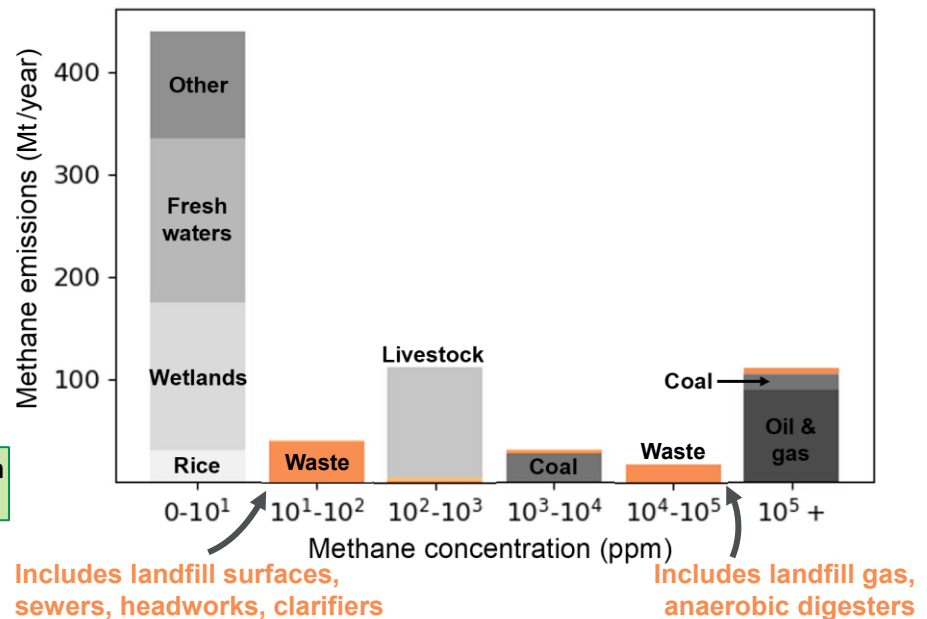
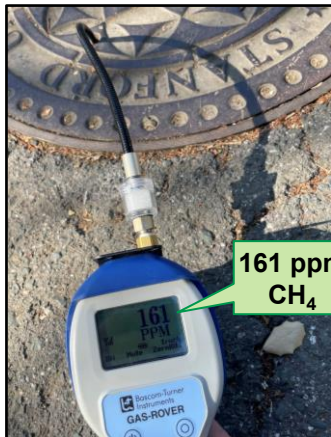
Abernethy S, Kessler M, & Jackson R, *Environmental Research Letters*, 18 094064 (2023)

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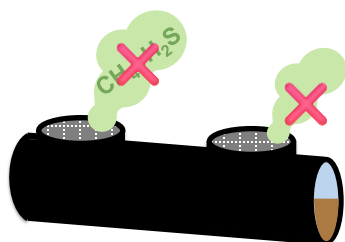
Global methane emissions



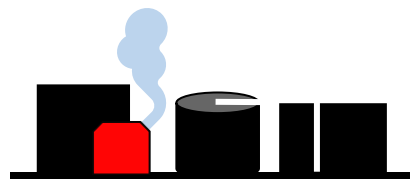
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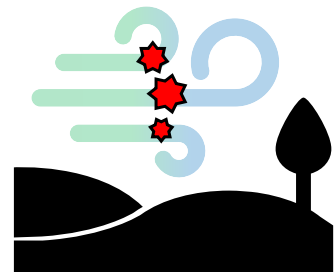
Methane mitigation options



1. Avoid methane production



2. Capture/oxidize methane at its source

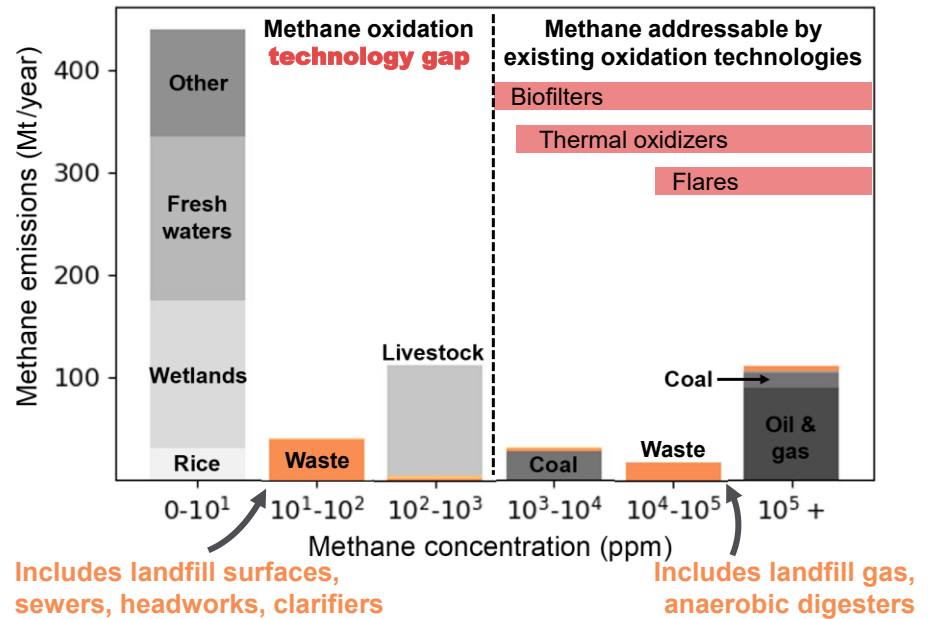


3. Oxidize methane in the atmosphere

For dilute methane, **oxidation** is easier than capture

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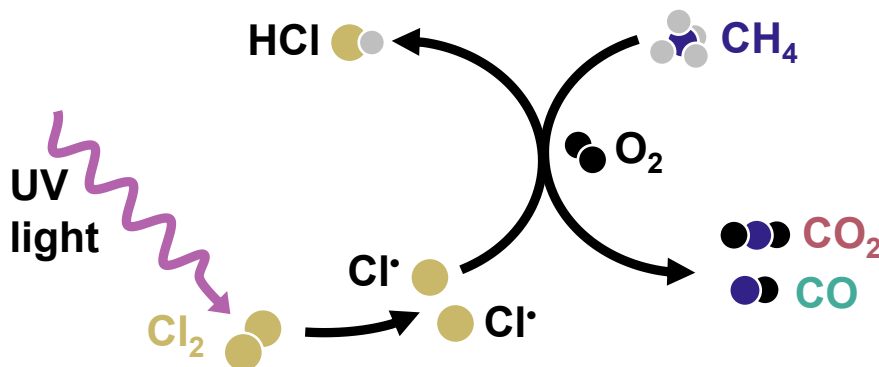
Methane oxidation technology gap



Abernethy S, Kessler M, & Jackson R, *Environmental Research Letters*, 18 094064 (2023)

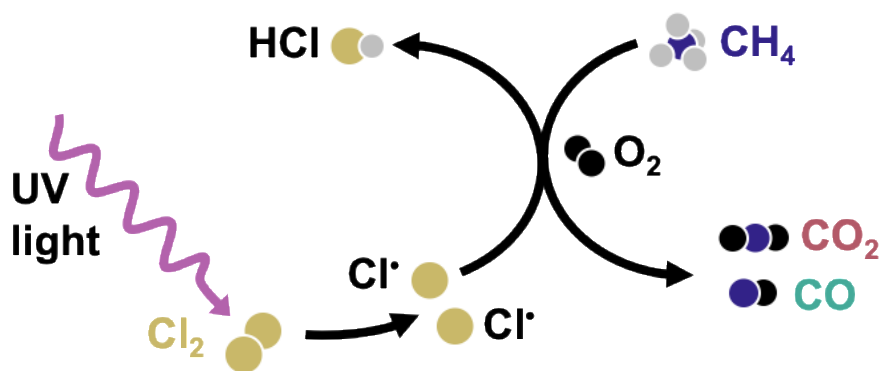
A new approach

Oxidize dilute methane with chlorine radicals



A new approach

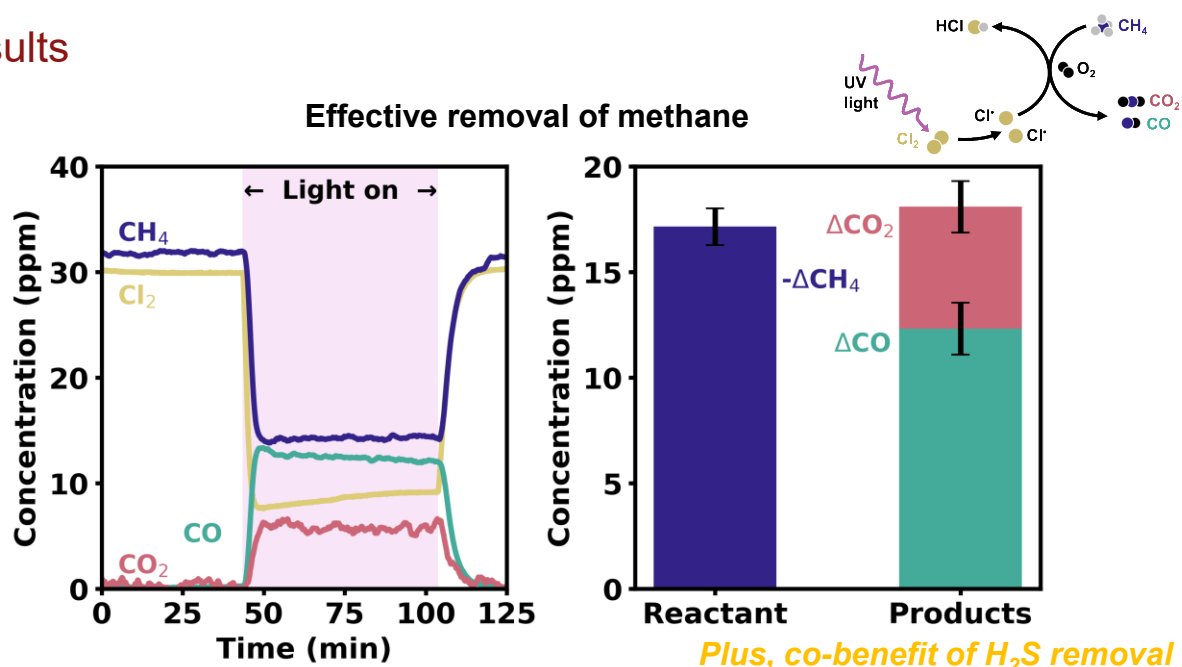
Oxidize dilute methane with chlorine radicals



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Results

Effective removal of methane

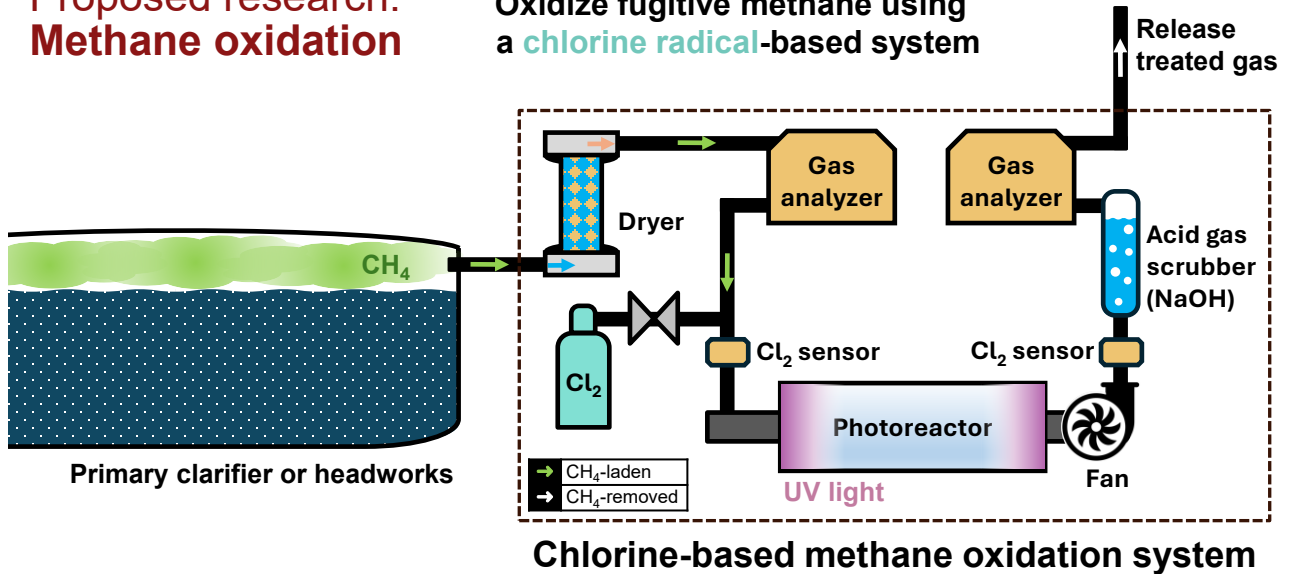


Plus, co-benefit of H_2S removal

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Proposed research:
Methane oxidation

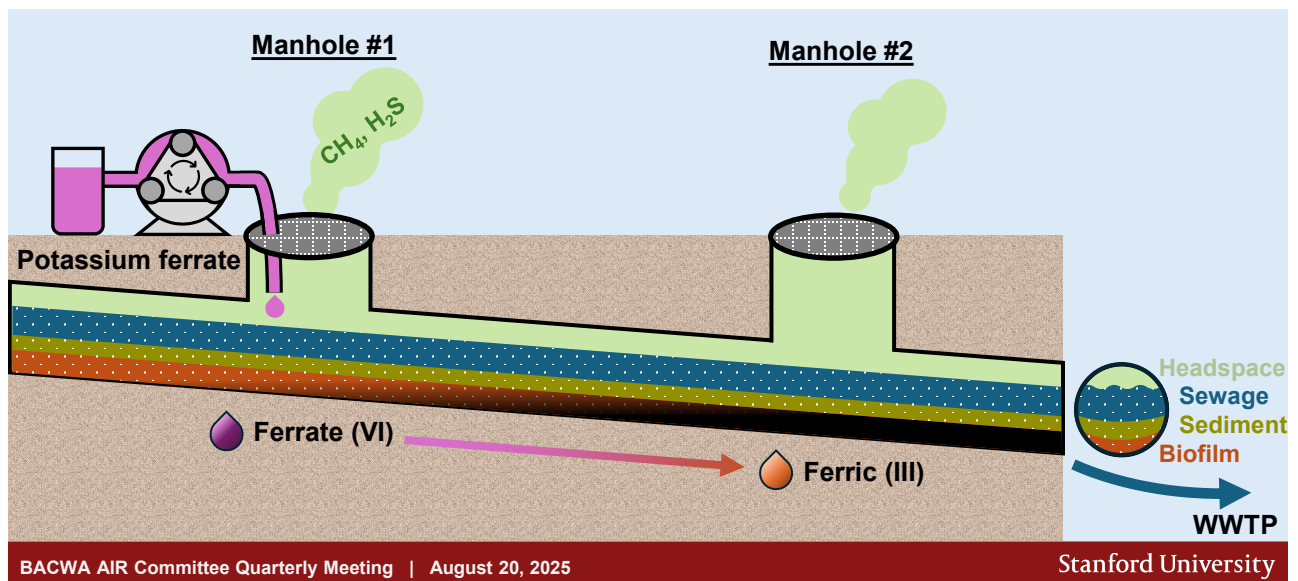
Oxidize fugitive methane using a **chlorine radical**-based system



Example system set-up

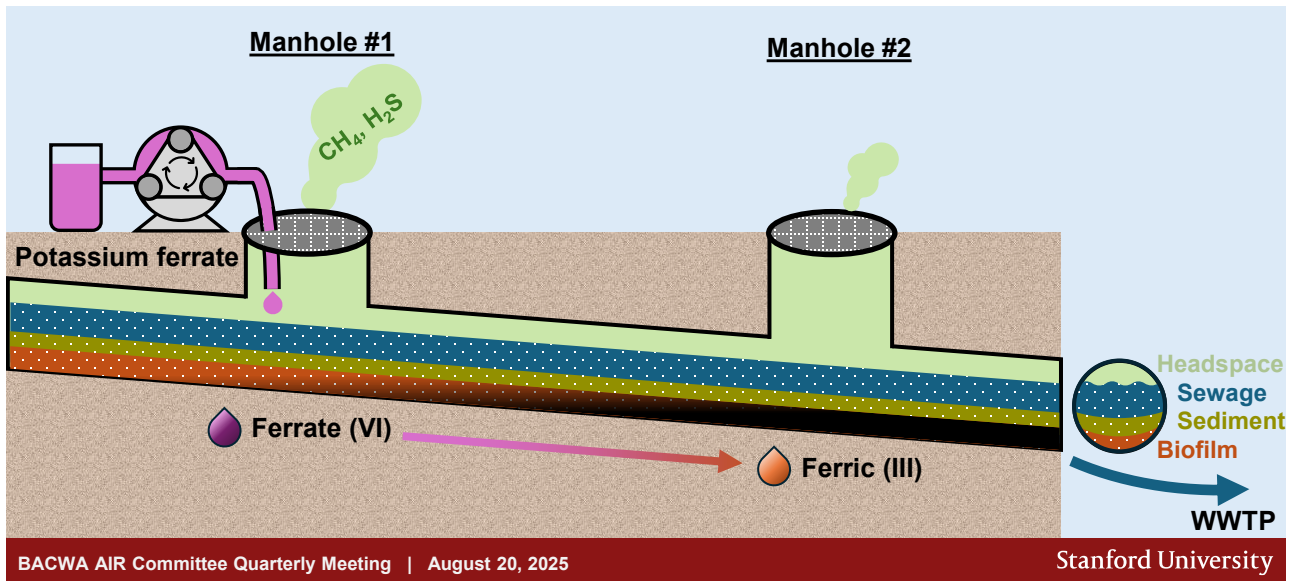
Proposed research:
Methane avoidance

Kill methanogens by dosing a **highly oxidizing iron salt** into sewer mains



Proposed research: Methane avoidance

Kill methanogens by dosing a **highly oxidizing iron salt** into sewer mains



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I'm looking for

Thought partners on the future for addressing fugitive wastewater methane. Technologies, policies, and financing?

Research partners for the **chlorine** and/or **ferrate** field experiment.

Each project involves:

- **Scoping locations with fugitive emissions**
- **Taking preliminary gas measurements**
- **Introducing intervention to remove CH₄, H₂S**

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The team

Stanford | Doerr

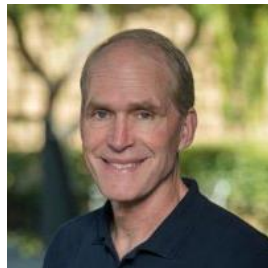
School of Sustainability

Primary contact:

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maxk3@stanford.edu
 360-298-6671



Prof. Arun Majumdar



Prof. Rob Jackson



Max Kessler

CARB/EPA Med/Heavy Duty Vehicle Regulations Overview

Adapted from graphic by Cummins and some additional detail



Engine Manufacturers Must sell engines that meet requirements	Vehicle Manufacturers/Dealers Must sell an increasing percentage of ZEVs	Fleet Owners/End Users Must follow ACF ZEV purchase OR percentage requirements
CARB Omnibus Low NO_x: Sets emissions standards for new engines to meet, starting in 2024 for CA and opt-in states President signed Res. 89 disapproving EPA's waiver of preemption – CA sued President	CARB Advanced Clean Trucks: Must produce (and sell) a certain percentage of ZEVs each year beginning 2024 President signed Res. 87 disapproving EPA's waiver of preemption – CA sued President FTC / OEMs agree Clean Truck Partnership is unenforceable with signed Resolutions	CARB Advanced Clean Fleets: Must purchase set amount of ZEVs starting in 2024 OR meet ZEV milestone thresholds starting in 2025 CARB withdrew waiver request, will submit repeal of private/drillage fleet regulations Sept 25 w/ ACF changes
EPA Heavy Duty Low NO_x: Sets emissions standards for new engines to meet, starting in 2027 nationally	EPA Phase 3 Heavy Duty GHG Stds: Must meet CO ₂ average for all vehicles sold, starting in 2027 EPA proposed rescinding 2009 GHG Endangerment Finding July 29, public hearing Aug 19/20, comments due Sept 15	CARB Clean Truck Check – Heavy Duty Inspection/ Maintenance: Requires periodic emissions compliance tests

Governor Newsom filed lawsuit against President AND issued EO N-27-25 (same day) to start Advanced Clean Cars III Regulation to "replace" CARB's ACT, ACCII, and Omnibus Rule should the Resolutions be upheld!

CARB released 45-Day Changes to ACF Regulations for comment by Sept 15th



- Signed October 8, 2023, applies to public agencies including wastewater treatment providers.
- Authorizes public agencies to “...*purchase traditional replacements for medium- and heavy-duty vehicles at the end of their useful life...when needed to maintain reliable service and respond to major foreseeable events...without regard to the model year of the vehicle being replaced.*”
- March 25 CARB re-opened ACF regulations to incorporate AB 1594 requirements
- CASA submitted comments May 20 and September 3, met w/ CARB staff June 26
- CASA continues coordinating with CMUA, ACWA, SCPPA, NTPA, CSAC, CalCities, CSDA,
- Workshop Oct 3 to discuss draft Rulemaking Language (released Oct 1), commented Nov 1
- Preview of Regulatory Language provided Feb 7 – language aligned with CASA's asks
- **July 29, 2025: CARB released 45-day Regulatory Package WITH THE UNDERSTANDING they already plan for another 15-day Package following Sept 25 Public Hearing to incorporate more flexibility AND address RNG (“critical issue to resolve”)**

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CARB released 45-Day Changes to ACF Regulations for comment by Sept 15th



- **What does CARB's 45-day Regulatory Package address?**
 - New definition for Traditional Utility-Specialized Vehicle.
 - New Section 2013.1(g) Traditional Utility-Specialized Vehicle Early Access with more detail on replacement criteria needed prior to using/requesting exemption.
 - New Section 2013.6 ZEV Milestones Option for those who opted (since Section 2015 no longer exists).
 - New Section 2013.7 dedicated to Hiring Compliant Fleets.
 - *CARB Chair requested data and information be collected on RNG for discussion, followed by 15-day Package.*
- **Comments due Sept 15 – Sarah coordinating with Advanced Clean Vehicle Subgroup.**
- **Public Hearing Sept 25** on 45-day Package AND tow truck/NZEV/RNG discussion
- 15-day Regulatory Package to address role of RNG, NZEV definition, increased flexibility.
- **Collecting data on biogas utilization generally – CARB staff has data showing only 50% of wastewater biogas is beneficially used and not speaking of biogas production potential with SB 1383 implementation**

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2025 State Legislative Process – Only One Month Left in Session



- Most Air, Climate, & Energy Workgroup-related bills are 2-year bills that we will see again in 2026:
 - Air Quality – SB 318 (BARCT/BACT, CARB authority for Title V permits) – **High Priority**
 - Hydrogen – AB 35 (clean hydrogen definition)
 - Low Carbon Fuel Standard
 - Natural & Working Lands – SB 285 (natural approaches)
 - Organics Diversion/Biomethane under SB 1383 – AB 70 (pyrolysis, pipeline injection) – **still alive!**
 - Scoping Plan Update
 - Vehicles – AB 496 (appeals committee, vehicle exemption for emergency uses)
 - Other (adaptation related – sea level rise)
- **State Legislative Committee 2026 Strategic Planning – Dec 5**



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AIR Committee Chair Interest



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- If interested in serving as an AIR Committee Chair, please contact Jason Nettleton (jason.nettleton@sanjoseca.gov), Nohemy Revilla (nrevilla@sfwater.org), or Lorien Fono (lfono@bacwa.org).



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Open Discussion / Member Updates

- Digester gas limits in Air District permits?
- Other topics?



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WCW Clean & Green Project



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Upcoming Meetings/Events

- WEFTEC – September 27-October 1 (Chicago)
- Bay Area Biosolids Coalition – October 13
- **Next AIR Committee Quarterly Meeting: November 19**
- CASA Winter Conference – January 13- 16, 2026 (Indian Wells)
- Washington DC Policy Forum – February 23-24 (Washington, DC)
- CWEA Annual Conference – April 7-10 (Sacramento)
- CASA Annual Conference – August 4-7, 2026 (Napa)



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Thank You – Happy Fall!



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