

Vote to Allow Brown Act
Teleconferencing Option Under SB 707

Teleconferencing Changes for Non-Elected Committee Members

Does not apply to Governing Board Meetings.

Does not apply to elected officials serving in an official capacity, but they can still participate in Committees remotely by using the traditional Brown Act Procedures.

Non-elected Committee Members will be able to attend Committees remotely without following the traditional Brown Act Noticing Requirements, including posting at the remote location and posting the remote location's address.

On May 1, 2026, the Governing Board made findings that allowed eligible subsidiary bodies to teleconference under these provisions.

Teleconferencing Changes for Non-Elected Committee Members (cont'd)

Before using this new procedure, a Committee or other subsidiary body must approve the use of teleconferencing by majority vote.

To use the new procedure, the Committee or body must designate a location where members of the public may physically attend, observe, hear, and participate in the meeting.

A member using this process must visibly appear on camera during the open portion of the meeting unless the appearance would be technologically infeasible.

If the member does not appear on camera due to challenges with internet connectivity, they must announce the reason for their nonappearance prior to turning their camera off.

SRC Discussion and Public Comment



Proposed Updates to BACT Guidelines

BACT Scientific Review
Committee Meeting

May 28, 2026

Meeting Location: **South Coast AQMD, Conference Room GB**

Zoom Webinar: <https://aqmd.zoomgov.com/j/1605192513>

Webinar ID: **160 519 2513**

Call-in number: **1-669-254-5252**

Outline

BACT SRC Role and BACT Guidelines Update Process

Overview, Policy, and Procedures

Updates to Part D: Non-Major Polluting Facilities

Updates to Part B: Major Polluting Facilities

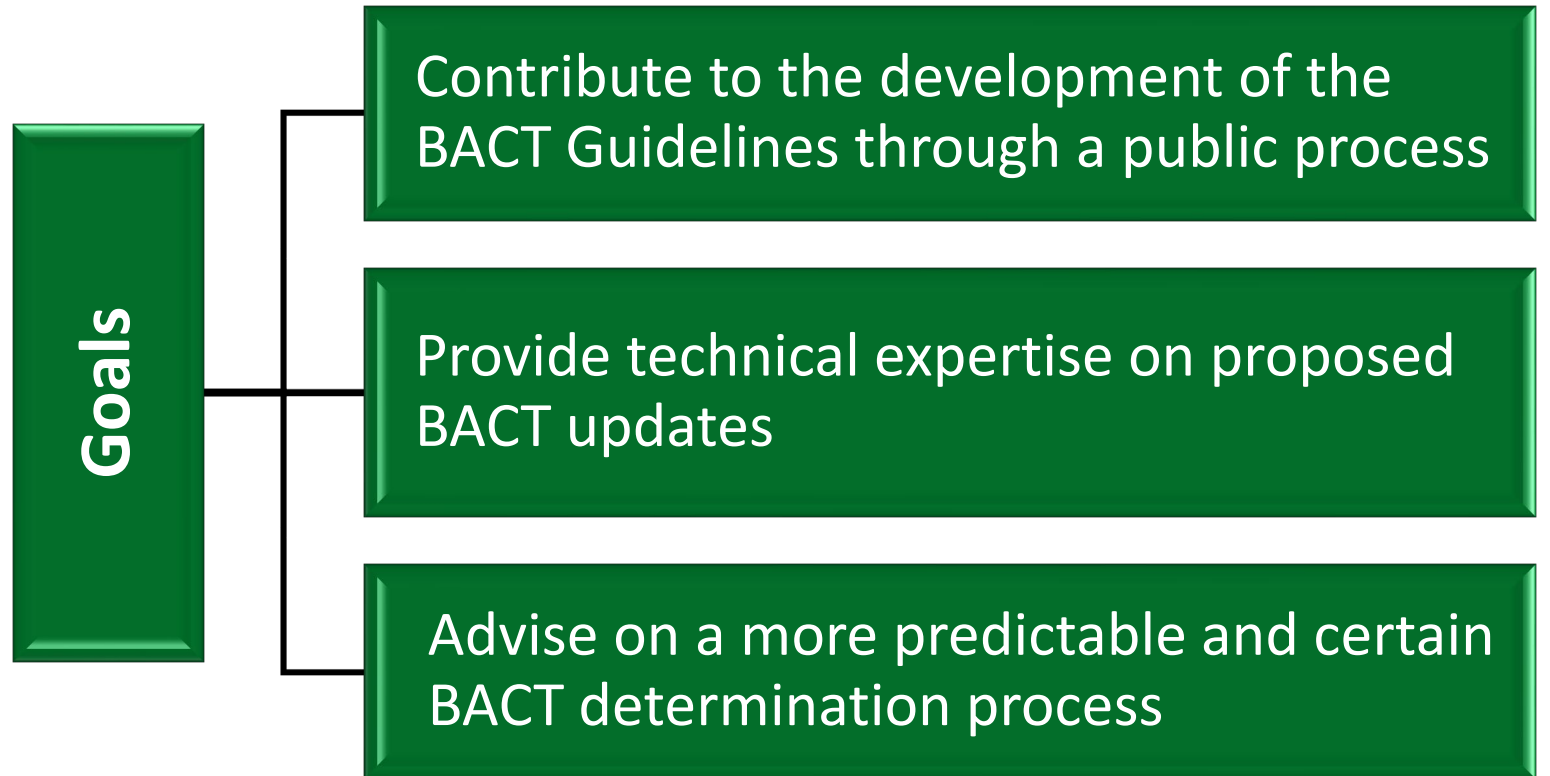
Next Steps and Public Comment

BACT Scientific Review Committee

Mission & Goals

Mission

To assist and advise South Coast AQMD staff in ensuring BACT Guidelines are developed in a clear, consistent, and technically sound public process

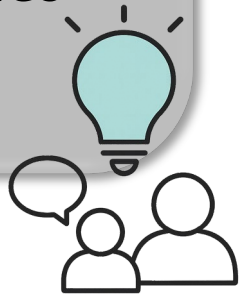


BACT Scientific Review Committee

Key Objectives & Roles

➤ The BACT Scientific Review Committee (SRC) achieves its goals by:

Sharing technical knowledge and considerations
Encouraging discussion on technologies



Advising on alignment of BACT Guidelines with local, state, and federal requirements



Providing written and verbal comments to South Coast AQMD staff on proposed BACT Guidelines*



* Past permitting actions are finalized and are not modified through SRC BACT process.

BACT Guidelines

LAER/BACT Update Process

Periodic updates to the BACT Guidelines through a public process to reflect advancements in control technology and to ensure affected equipment use the cleanest technology

Notify the public and BACT SRC through a public process

**In establishing Major Polluting Facility LAER:
Section I - South Coast AQMD LAER/BACT Determinations**

Provide standing status reports to Stationary Source Committee and to Governing Board

**In establishing Non-Major Polluting Facility BACT or
to make BACT more stringent than LAER***

Provide a report to Stationary Source Committee
Present to Governing Board for approval at a public hearing

Update BACT Guidelines with New Listings

*Required to evaluate cost-effectiveness

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Proposed Administrative Changes

➤ Overview

■ Chapter 1 - Introduction

- Update listed manager of CARB Technology Clearinghouse database
- Reorganize paragraphs to improve clarity and consistency
- Update BACT Guidelines access instructions to reflect the current web address and eliminate the hardcopy ordering option

■ Chapter 3 - When is BACT Required?

- Add a footnote to include a link to the CO Attainment Status memo

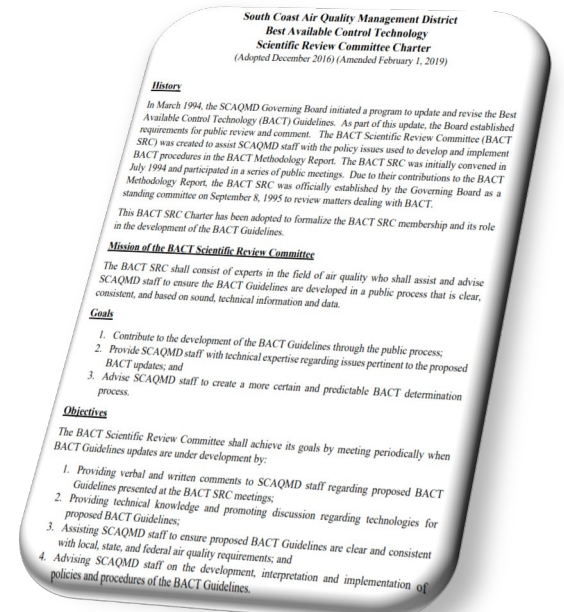
■ Chapter 5 - Review of Staff BACT Determinations

- Add description of and link to BACT SRC Charter and updated BACT SRC web address

➤ Part A - Policy and Procedures for Major Polluting Facilities

■ Chapter 1 - How is LAER Determined for Major Polluting Facilities?

- Correction to chapter number referenced in "Cost in LAER Determinations" section



Overview, Policy, and Procedures

Cost Index Update

➤ Part C - Policy And Procedures For Non-Major Polluting Facilities

- Chapter 1 - How Is Minor Source BACT (MSBACT) Determined for Minor Polluting Facilities?

Table 5: Updated maximum cost-effectiveness criteria based on Marshall & Swift Cost Index, reflecting ~ 10.57% increase (Q3 2023 to Q1 2026)

Pollutant	Average (Maximum \$ per Ton)	Incremental (Maximum \$ per Ton)
ROG	40,854 <u>45,173</u>	122,563 <u>135,520</u>
NOx	38,630 <u>42,713</u>	115,687 <u>127,916</u>
SOx	20,427 <u>22,587</u>	61,282 <u>67,760</u>
PM10	9,101 <u>10,063</u>	27,101 <u>29,966</u>
CO	809 <u>895</u>	-2,326 <u>2,572</u>

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Next Steps and Public Comment

Linear Generator, Non-Emergency Generator, Natural Gas Fired Non-major Polluting Facility – Proposed New Category

- Rule 1110.3 adopted in Nov. 2023 required NOx, CO, and VOC emission limits
 - 240 kWe module consists of two identical 120 kWe linear generator cores
 - Exhaust is vented to the oxidation catalyst



Emission limits

Emissions (ppmv)*	Proposed LAER Limits
NOx	2.5
CO	12
VOC	10

* @ 15% O₂ on a dry basis

Equipment or Process: [Linear Generator – Non-Emergency Electrical Generator](#)

Subcategory/ Rating/Size	Criteria Pollutants				
	VOC	NOx	SOx	CO	PM₁₀
Natural Gas Fired	Compliance with Rule 1110.3 (xx-xx-2026)	Compliance with Rule 1110.3 (xx-xx-2026)		Compliance with Rule 1110.3 (xx-xx-2026)	

[✓ Permitted by SCAQMD](#)
[✓ Commercially Available](#)
[Cost-effective: N/A](#)
[✓ Reliable \(> 6 months\)](#)
[✓ Effective \(Tested\)](#)
 AIP

Emissions of Oxides of Nitrogen from Commercial Food Ovens

Other Updates - Consistency with Rules and Regulations

- Update to align with Rule 1153.1 (Aug. 4, 2023) NOx and CO requirements
 - Ribbon Burner:** At all temperatures comply with 30 ppm NOx limit per Rule 1153.1
 - Indirect Fired Burner:** Move from footnote to the table and add 30 ppm NOx and 800 ppm CO emission limits

Equipment or Process:		Food Oven				
Subcategory ¹	Rating/Size	Criteria Pollutants				
		VOC	NOx	SOx	CO	PM10
Ribbon Burner	>500°F		60-30 ppmvd @ 3% O ₂ (2-2-2018)(xx-xx-2026)	Natural Gas (2-2-2018)	800 ppmvd @ 3% O ₂ Compliance with applicable Rules 407 or 1153.1 (2-2-2018)(xx-xx-2026)	Natural Gas (2-2-2018)
	≤500°F		30 ppmvd @ 3% O ₂ (2-2-2018)	Same as above	Same as above	Same as above
Other Direct Fired Burner			30 ppmvd @ 3% O ₂ (2-2-2018)	Same as above	Same as above	Same as above
<u>Indirect Fired Burner</u>			30 ppmvd @ 3% O ₂ (xx-xx-2026)			
Infrared Burner			30-15 ppmvd @ 3% O ₂ (2-2-2018)			

- Infrared Burner:** Update NOx limit to 15 ppm
- All categories:** Add 800 ppm CO limit to comply with current rule requirements

Add-on Control for Bakery Oven processing yeast leavened products with emissions ≥ 30 lb VOC/day		Catalytic oxidizer with 95% overall control efficiency (mass basis); catalyst inlet temperature ≥ 600°F; ceramic prefilter (2-2-2018)(xx-xx-2026)	Compliance with Rule 1147 at the time of applicability for Oxidizer (2-2-2018)(xx-xx-2026)		
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¹Indirect Fired units may be subject to Rules 1146 and 1146.1 and BACT for Process Heater.

Emissions of Volatile Organic Compounds from Liquid Storage Tanks

Other Updates - Consistency with Rules and Regulations

- Update to align with Rule 463 (Jan. 9, 2026) VOC requirements
 - **Liquid Storage Tanks – Fixed Roof:** Vapor Recovery System with an overall control efficiency of at least 98 percent by weigh and compliance with Rule 463 – Organic Liquid Storage

Equipment or Process: Storage Tanks - Liquid

Subcategory/ Rating/Size	Criteria Pollutants				
	VOC	NOx	SOx	CO	PM ₁₀
Fixed Roof	Vapor Recovery System with an Overall System Efficiency of <u>≥95% 98% and compliance with Rule 463 (7-11-97) (xx-xx-2026)</u>				



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Next Steps and Public Comment

LAER/BACT Listings

Section II – Other Technologies

- Boiler
- Digester Gas (Biogas) Conditioning and Upgrading System

Section I – South Coast AQMD LAER/BACT Determinations

- Lithographic Printing, Non-Heatset, Sheet-fed
- Linear Generator, Non-Emergency Generator, Natural Gas Fired
- Sulfur Control System [Prior to Landfill Gas Combustion]
- Flare, Landfill Gas Fired [VOC and PM10 Control]

Boiler

Section III - Other Technologies

■ Emerging Technology case

- Construction in progress (Permit to Construct issued in Oct. 2023)
- Two boilers rated at 520.4 MMBtu/hr each, with low-NOx burners
- Equipped with two Selective Catalytic Reduction (SCR) Systems
- Fired on refinery fuel gas, natural gas, and process gas from the fume scrubber

■ Emissions

Emissions (ppmv)	Permit to Construct Limits		
	30-day average	24-hr average	1-hr average
NOx*	2.5	3.0	-
CO*	27	35	-
Ammonia*	-	-	5

* Corrected to 3% O₂ on a dry basis



✓ Permitted by South Coast AQMD

✓ Commercially Available

Reliability/Effectiveness: Pending

Emerging Technology

Digester Gas (Biogas) Conditioning and Upgrading System

Section III - Other Technologies

Emerging Technology case

- Construction in progress (Permit to Construct issued in November 2025)
- Biogas conditioning and upgrading system transforming raw biogas into renewable natural gas equipped with
 - Hydrogen Sulfide and VOC removal vessels
 - Tail gas treatment for managing downstream process emissions

Emissions

Emissions*(ppmv)	Permit to Construct Limit
Total Sulfur as H ₂ S	2.0**

* VOC, NO_x, SO_x, CO, PM/PM₁₀ and other inorganic compound emissions ≤ 1 lb/day (Post-control)

** Emission limit for hydrogen sulfide was imposed to satisfy California Ambient Air Quality Standard (CAAQS)



✓ Permitted by South Coast AQMD

✓ Commercially Available

Reliability/Effectiveness: Pending

Emerging Technology

Lithographic Printing, Non-Heatset, Sheet-fed

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

■ Achieved in Practice case

- Permit to Operate issued in March 2021
- Sheet-fed lithographic printing
- 170 kW rated ultraviolet (UV) dryer and 175 kW rated infrared dryer

■ Emissions

- Low VOC fountain solution; less than or equal to 8% by volume
- Low VOC blanket and roller washes; less than or equal to 100 gram per liter
- UV-curable or oil-based inks
- Comply with Rule 1130 and Rule 1171



✓ Permitted by South Coast AQMD

✓ Commercially Available

✓ Reliable (> 6 months)

✓ Effective

☑ AIP

Lithographic Printing, Non-Heatset, Sheet-fed (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

Key Comments	Responses
<p>The proposed BACT listing for non-heatset lithographic printing identifies UV curing but does not explicitly include Electron Beam (EB) or Light Emitting Diode (LED) curing, which use the same low-VOC materials.</p> <p>Although staff indicated the listing is intended to be technology-neutral, clarifying that EB and LED are also compliant, would provide regulatory certainty and encourage broader adoption of cleaner technologies.</p>	<p>This proposed listing for non-heatset lithographic printing is a LAER determination, which is equipment-specific and the energy curable portion currently applies only to UV curing. South Coast AQMD classifies both UV lamps and UV LEDs as UV dryers and does not distinguish between these two sources of ultraviolet radiation during permitting process.</p> <p>EB and Visible Light LED curing will be considered in future determinations as more data becomes available. SRC and public may consider examples that are AIP for future updates.</p> <p>Furthermore, technologies listed for Non-Major sources are also applicable to Major sources.</p>

Linear Generator, Non-Emergency Generator, Natural Gas Fired

Section I – South Coast AQMD LAER/BACT Determinations - Updated Listing

- **Achieved in Practice case**

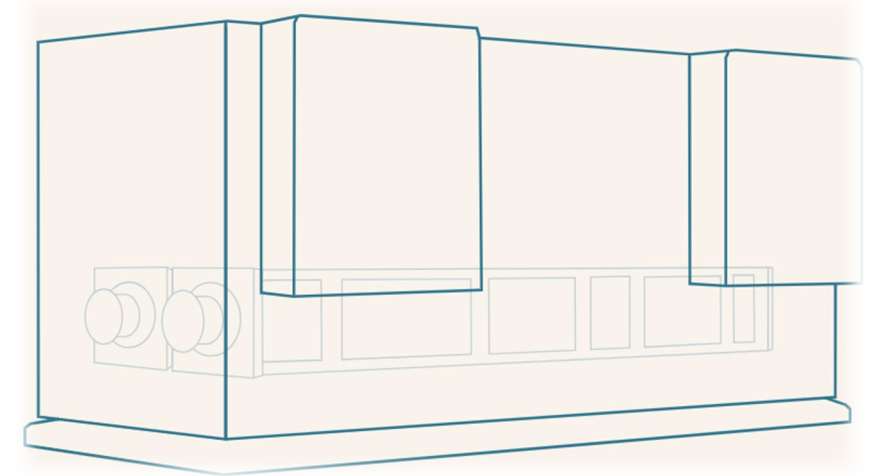
- Permit to Operate issued in April 2024
 - 240 kWe module consists of two identical 120 kWe linear generator cores
 - Exhaust is vented to the oxidation catalyst
- Rule 1110.3 adopted in Nov. 2023 required the VOC limit of 10 ppmv

- **Emissions**

Emissions (ppmv)*	Permitted LAER Limits	Source Test Results** @ Normal Load	
		Core 1	Core 2
NOx	2.5	1.98	2.25
CO	12	2.51	2.24
VOC	10	7.48	8.87

* Corrected to 15% O₂ on a dry basis

** Source test was performed using South Coast AQMD Method 100.1 for NOx, O₂, and CO; and Method 25.3 for VOC



Permitted by South Coast AQMD
 Commercially Available
 Reliable (> 6 months)
 Effective (Source Tested)
 AIP

Linear Generator, Non-Emergency Generator, Natural Gas Fired (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - Updated Listing

Key Comments	Responses
<p>VOC and possibly CO emissions from linear generators can vary by fuel type.</p> <p>Since the data is based on pipeline-quality natural gas, the listing should note this and indicate that LAER/BACT emission limits may require case-by-case adjustments for other fuels like landfill gas or biogas.</p>	<p>Staff acknowledges that emissions may vary depending on fuel composition.</p> <p>Since this LAER/BACT determination applies specifically to linear generators firing solely on natural gas, as defined under Rule 1110.3, clarification will be provided, and LAER/BACT for other fuel types may be evaluated on a case-by-case basis.</p>
<p>VOC emissions measured during testing with pipeline-quality natural gas ranged from 3 to 11 ppm across the generator cores.</p> <p>This variability raises concerns about whether the proposed 10 ppm @ 15% O₂ limit can be consistently met. Staff should review the test reports to evaluate the variability and confirm achievability of the limit.</p>	<p>Staff review of source test data indicated that VOC emissions fall within the expected operational range. While some variability exists due to differences in core design, tuning, and maintenance all tested cores met the VOC limit of 10 ppm @ 15% O₂ when using pipeline-quality natural gas.</p> <p>This limit is already established in Rule 1110.3, and several permitted linear generators have demonstrated compliance.</p>

Sulfur Control System [Prior to Landfill Gas Combustion]

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

- Rule 431.1 limits sulfur compounds in fuels to reduce Sulfur Oxides (SO_x) emissions
- Hydrogen Sulfide (H₂S) in landfill gas leads to SO_x formation during combustion
- Reduce SO_x in combustion exhaust:



- Monitoring Requirements
 - Option 1: Measure **fuel gas sulfur content (as H₂S)** prior to combustion
 - Option 2: Measure **SO_x emissions** after combustion

Sulfur Control System [Prior to Landfill Gas Combustion] (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

■ Achieved in Practice case

- In operation since Nov. 2018
- Landfill gas treatment system with a design capacity of 9,000 SCFM
- Five parallel fixed-bed pressure vessels (four operational and one standby), each containing granular media to reduce total sulfur in the landfill gas stream prior to combustion

■ Emissions

Total Sulfur as H ₂ S (ppmv)	Permitted LAER Limits	Maximum Concentration*
Daily average	85	69
Monthly average	60	59

* As measured by the facility's Continuous Fuel Gas Monitoring System (Feb. – Sep. 2024)



✓ Permitted by South Coast AQMD

✓ Commercially Available

✓ Reliable (> 6 months)

✓ Effective (CFGMS)

☑ AIP

Sulfur Control System [Prior to Landfill Gas Combustion] (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

■ Achieved in Practice case

- In operation since Jun. 2023
- Landfill gas treatment system with a design capacity of 4,000 SCFM
- Two series fixed-bed pressure vessels, each containing granular media to reduce total sulfur in the landfill gas stream prior to combustion

■ Emissions

Total Sulfur as H ₂ S (ppmv)	Permitted LAER Limits	Source Test Results*
Daily average	85	2/21/2024
Monthly average	60	12/30/2024

* Based on periodic source test

✓ Permitted by South Coast AQMD

✓ Commercially Available

✓ Reliable (> 6 months)

✓ Effective (Source Tested)

☑ AIP

Sulfur Control System [Prior to Landfill Gas Combustion] (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

Key Comments	Responses
Concern that applying the requirement of sulfur control technology as BACT to all landfill gas (LFG) combustion sources may not be universally applicable.	Variability in LFG sulfur content is recognized; however, the requirement establishes a consistent evaluation framework. Site-specific conditions and available data are considered during the case-by-case LAER/BACT determination process.
Combustion equipment differences (engines vs. boilers and flares) may limit applicability.	The standard establishes a uniform sulfur limit for treated landfill gas prior to combustion to control downstream SOx emissions.
The LAER determination may not meet Technology Transfer criteria under South Coast AQMD BACT Guidelines Part A.	Compliance with similar sulfur levels has been achieved (AIP) in practice (e.g., permitted flare systems), supporting an AIP basis rather than Technology Transfer.
Potential for high costs and unintended impacts (e.g., discouraging LFG use, delaying flare upgrades.)	For Major sources, LAER/BACT determinations are based on the most stringent emission limits AIP and do not routinely consider cost.

Flare, Landfill Gas Fired [VOC and PM10 Control]

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

■ Achieved in Practice case

- Permit to Operate issued in Feb. 2021
- Enclosed 167.15 MMBtu/hr ultra low emissions flare with automatic air damper, propane pilot, and 250 HP combustion air blower
- Equipped with a flow meter and continuous temperature indicator/recorder
- Flare capacity: 5,500 SCFM

■ Emissions

Emissions	Permitted LAER Limits	Source Test Results Range 2021 - 2025
VOC as Hexane (lb/MMBtu)	0.006	0.0023 - 0.0058
PM10 as PM (lb/MMSCF)	5	2.29 - 4.96

- Maintain $\geq 1,400$ °F (15-min avg.) during flare operation; excludes startup/shutdown



✓ Permitted by South Coast AQMD

✓ Commercially Available

✓ Reliable (> 6 months)

✓ Effective (Source Tested)

☑ AIP

Flare, Landfill Gas Fired [VOC and PM10 Control] (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

Key Comments	Responses
<p>Concern regarding setting a fixed minimum operating temperature in LAER/BACT determinations, as newer technologies may achieve VOC destruction at lower temperatures.</p>	<p>Per LAER/BACT Guidelines (Part A), staff may consider equipment- and/or site-specific factors, during permitting, including evaluation of minimum operating temperature limits, and may establish a new LAER determination for landfill gas flares if sufficient supporting data are provided.</p>
<p>Recommend using a default temperature with flexibility for alternative approaches supported by data, along with clear monitoring and compliance requirements.</p>	<p>Applicants may propose alternative approaches that achieve equivalent emission reductions as part of the permitting process and can be evaluated as part of the case-by-case evaluation.</p>
<p>PM emissions vary significantly (up to 31 lb/MMSCF) due to factors beyond operator control; strict PM limits could cause unnecessary violations.</p>	<p>Under Part A of the LAER/BACT Guidelines, staff may consider process-, equipment-, and site-specific factors, as well as alternative approaches that achieve equivalent emission reductions.</p>

Flare, Landfill Gas Fired [VOC and PM10 Control] (cont'd)

Section I – South Coast AQMD LAER/BACT Determinations - New Listing

Key Comments	Responses
<p>Source testing demonstrates flare VOC emissions exceeded limits in 43% of tests, with emissions up to 0.0234 lb/MMBtu, indicating the proposed VOC limit may not be reliably achievable and may not qualify as AIP.</p> <p>South Coast AQMD stated that results associated with facilities with unresolved or unspecified violations will not be used for BACT determinations.</p>	<p>To clarify the AIP basis used in our analysis, the LAER/BACT determination form provided in this round includes the facility name, flare description, permit number, and summary of source test results to clearly identify the specific case referenced, which is a different dataset than the one cited in the comment.</p>
<p>Request release of VOC and PM source test data (2011 – present) to support technical review prior to updating BACT Guidelines.</p>	<p>BACT SRC's purpose is not to comment on past permitting decisions. However, source test reports may be obtained through a Public Records Request. Staff can assist with identifying responsive records and narrowing the scope of requests as needed.</p>

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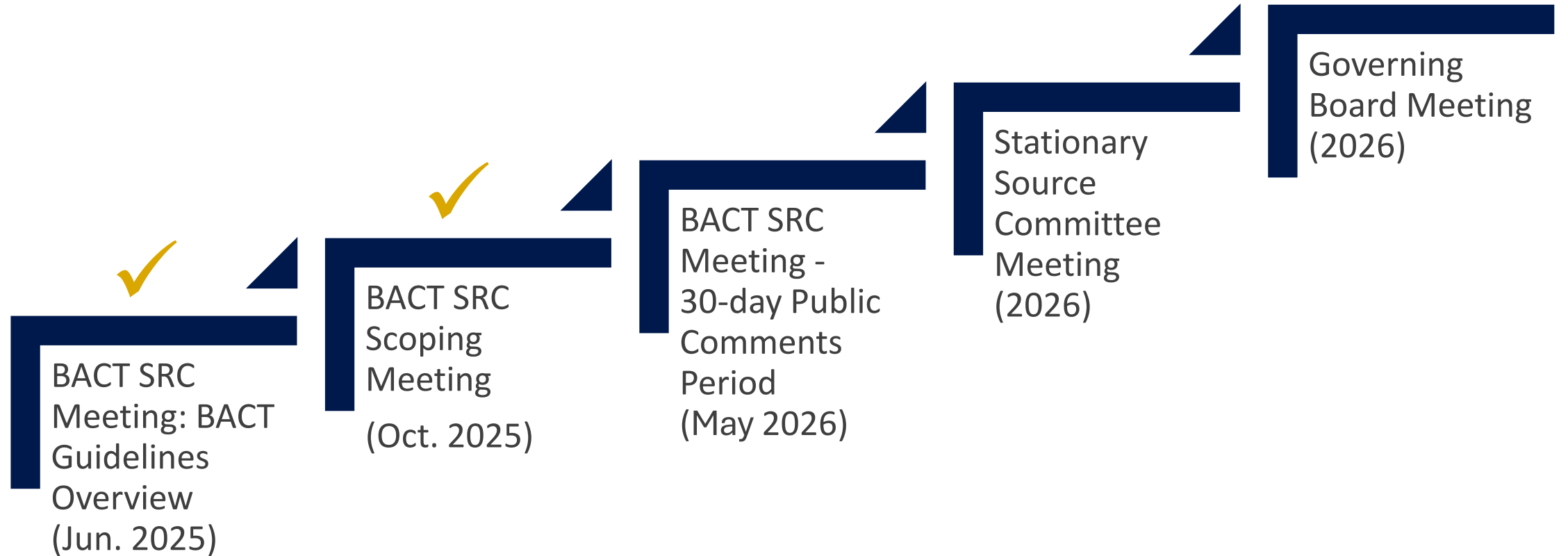
Next Steps and Public Comment

Discussion: Establishing a Regular BACT SRC Meeting Schedule

- South Coast AQMD BACT Team is evaluating the option of establishing a fixed schedule for regular SRC meetings (e.g., bi-annual or tri-annual).
- We are seeking feedback from SRC members on adopting a consistent meeting schedule:
 - Fixed meeting schedule
 - Reduces scheduling challenges
 - Ensures regular BACT discussions
 - Opportunity for enhanced approach to LAER listing



Next Steps



Opportunities for Stakeholder Feedback

Currently seeking public comment on proposed updates to BACT Guidelines

Stakeholders can provide comment during BACT SRC Meetings

Submission of written comment requested by June 30, 2026

To: BACTTeam@aqmd.gov
Include "BACT Docket" in the subject line

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BACT Staff Contact Information

Please contact BACT staff with any questions

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<http://www.aqmd.gov/home/permits/bact>

SRC Discussion and Public Comment

Please note that under the California Public Records Act (Gov't. Code § 7920.000 et seq.) your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email) become part of the public record and can be released to the public on request or posted on the South Coast AQMD website.