

AGENDA NO. 28



Permitting Update for Implementation of Rule 1109.1 – NO_x Emissions from Petroleum Refineries and Related Operations

Governing Board Meeting
September 5, 2025

Rule 1109.1: NOx Emissions from Petroleum Refineries and Related Operations

- Adopted November 5, 2021
- The most significant rulemaking for NOx emission reductions from combustion sources
- Established Best Available Retrofit Control Technology (BARCT) NOx emission limits for nearly 300 pieces of combustion equipment
- Estimated 7.5 tons per day of NOx upon full implementation



Applicability

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9 Petroleum Refineries

- Chevron (El Segundo)
- Marathon (Carson)
- Marathon (Wilmington)
- Marathon – Calciner
- Marathon – Sulfur Recovery Plant
- Phillips 66 (Carson)
- Phillips 66 (Wilmington)
- Torrance Refining Company
- Ultramar (Valero)



3 Small Refineries

Asphalt Plants

- Lunday-Thagard DBA World Oil Refining (LTR)
- Valero Wilmington Asphalt Plant

Biodiesel Refinery

- AltAir Paramount



4 Related Operations

Hydrogen Plants

- Air Liquide Large Industries
- Air Products and Chemicals (Carson & Wilmington)

Sulfuric Acid Plant

- Eco Services Operations

Rule 1109.1 Design

- Rule was designed to harmonize with individual refinery operations and needs
- Each refinery submitted an implementation plan that:
 - Considered individual refinery turnaround schedules
 - Incorporated phased permit application schedules
- Staggered rule design allowed for timely permit processing
- All initial Rule 1109.1 implementation plans have been issued
 - Two facilities requesting plan revisions – in progress
- All Rule 1109.1 plans are available on South Coast AQMD website



Rule 1109.1 Plans

Rule 1109.1 Application Count by Year

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Total Number of Estimated Applications: 309

■ Estimated Applications
■ Submitted Applications

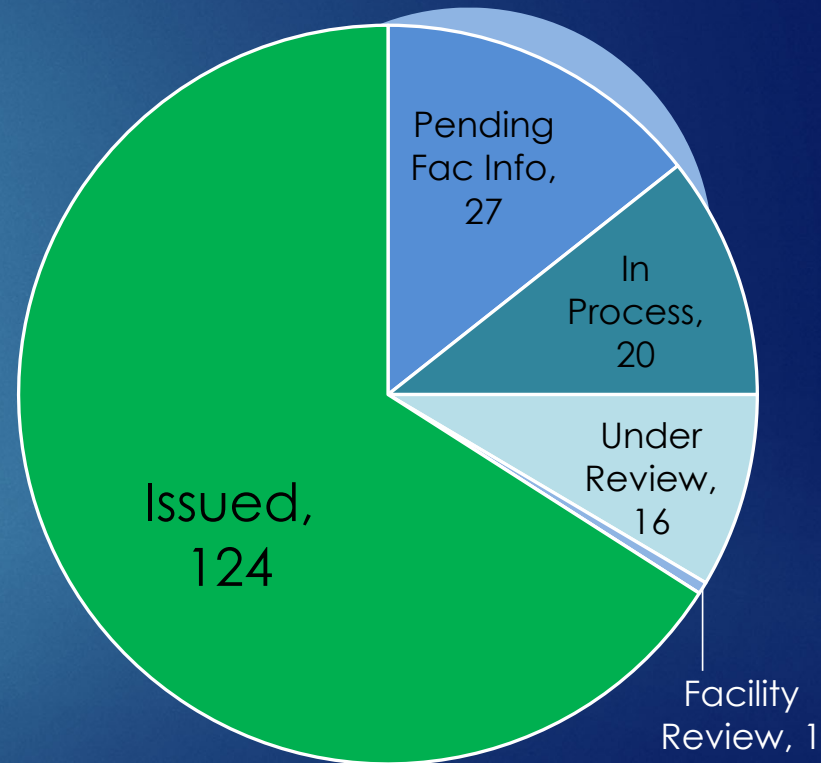


Rule 1109.1 Permit Applications

► Permit application processing status:

	Q4 2023	Q4 2024	Q3 2025
Pending Facility Info.	0	18	27
In Process	48	20	20
Under Review	37	25	16
Facility Review	8	2	1
U.S. EPA Review	2	4	0
Issued	57	98	124
Total	152*	167	188

* Various circumstances out of permitting staff's control prevented 100% issuance of Q4 2023 applications



Rule 1109.1 Implementation Progress

- Board requested periodic reporting after rule adoption
 - Board updates initially quarterly, now annual
- Other refinery projects processed in parallel
 - ~360 total applications in team inventory
 - New or modified equipment, other rule requirements, bulk loading terminals etc.
- Streamlining critical to implementation
 - Multiple meetings with WSPA and refineries to communicate strategies and requirements
 - Streamlined permit evaluation and development of templates for applications



Rule 1109.1 Implementation Progress

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- ▶ Staff continually working to meet increased demands
 - ▶ Refinery permitting team staffing levels prioritized and fully staffed
 - ▶ Chair's Permitting Enhancement Program increased staffing in 2023

Current Rule 1109.1 Emission Reductions
2.87 tons NOx emissions per day

- ▶ Additional future emission reductions will occur with continued permitting and upcoming construction

Next Steps

- Complete processing first phase of Rule 1109.1 applications
 - Strategically process other refinery projects
- Communication and outreach
 - Identify mechanisms that can better ensure timely permit processing
 - Communicate regulatory requirements and policies
 - Update affected AB 617 communities of plan revisions



NOx