

Proposed Amended Rule 1157 – PM₁₀ Emission Reductions from Aggregate and Related Operations (PAR 1157)



Working Group Meeting #2

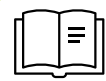
Date: January 8, 2025

Time: 2:00 pm

Zoom Link:

<https://aqmd.zoomgov.com/j/1613715068>

Agenda



Previous Working Group Meeting Summary



Response to Comments



Activity Between Working Group #1



Rule 1157 Universe



Current Rule 1157 Facility Types



Site Visit Summary



Next Steps

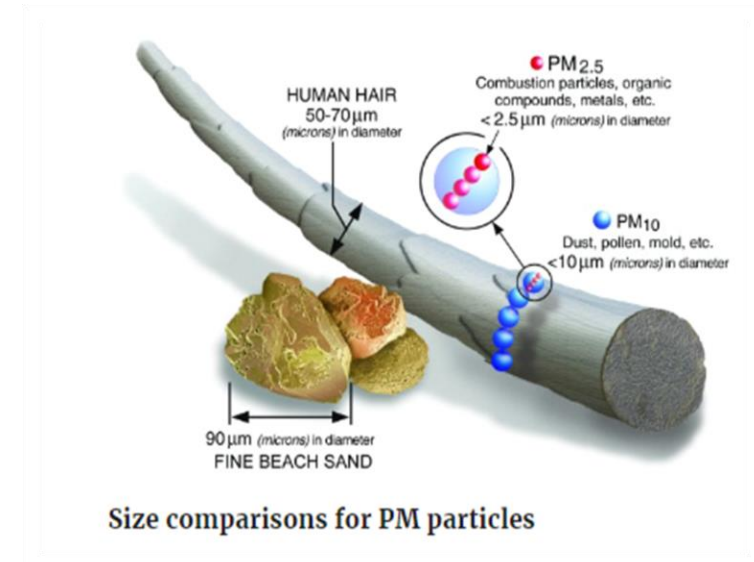
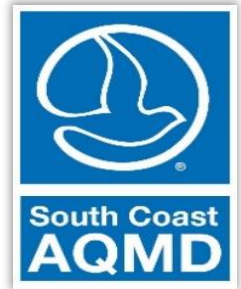


Previous Working Group Meeting Summary

Working Group Meeting #1 Recap



- Introduced South Coast AQMD
- Presented an overview of key information pertaining to:
 - PM₁₀ and its impacts on human health
 - Rule 1157
 - Applicability
 - Existing requirements
- Need for proposed amendments for Rule 1157





Response to Comments

Stakeholder Comments



Comments received from Working Group Meeting #1

Comment #1

How are Rule 1157 requirements enforced?

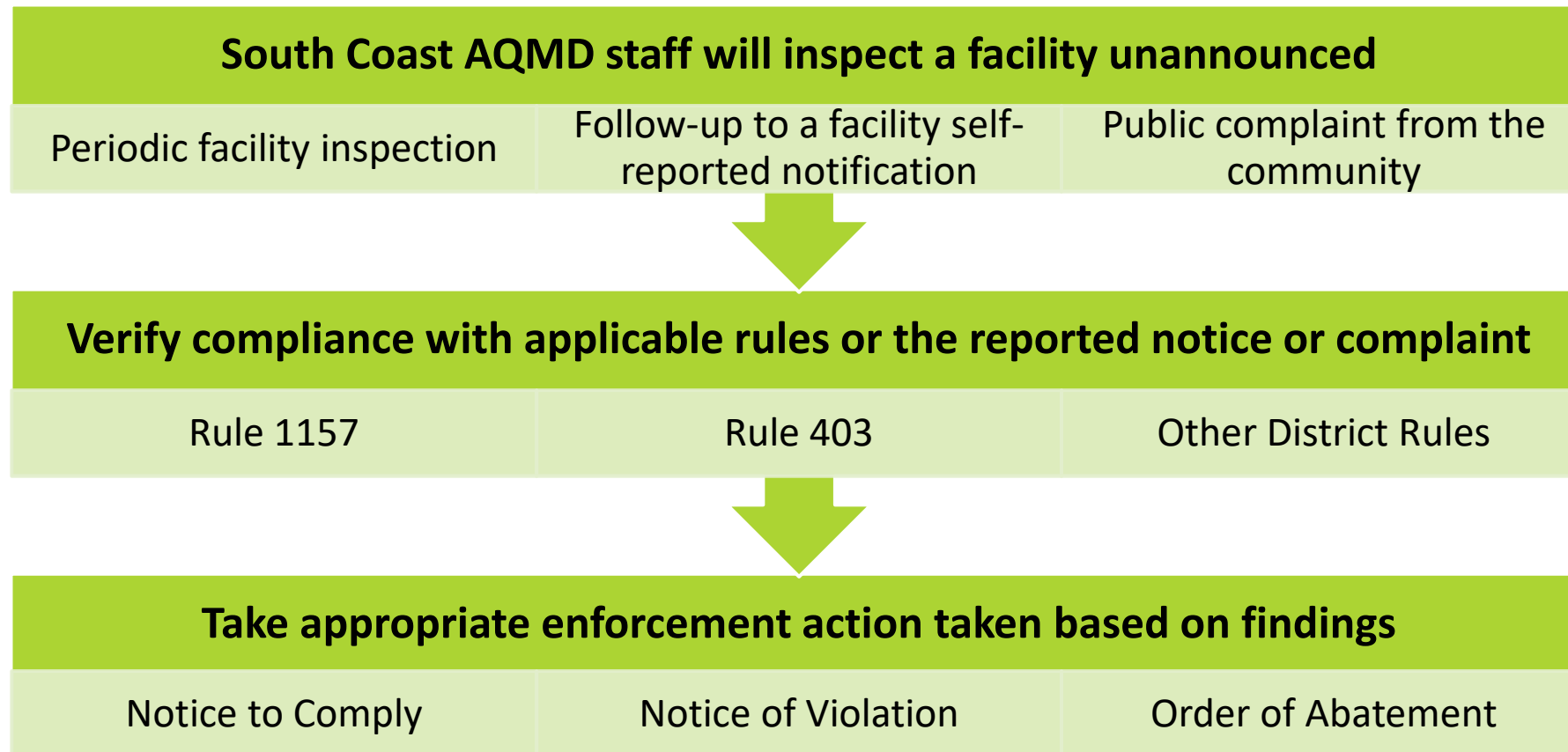
Comment #2

Is there enforcement data available?

Comment #3

How will Rule 1157 be strengthened to ensure compliance?

Comment 1: How are Rule 1157 requirements enforced?



Comment 2: Is there enforcement data available?



- Information regarding enforcement actions specific to a facility is available using FIND

What is FIND?

Web tool that the public can access information about facilities regulated by South Coast AQMD

How to Search?

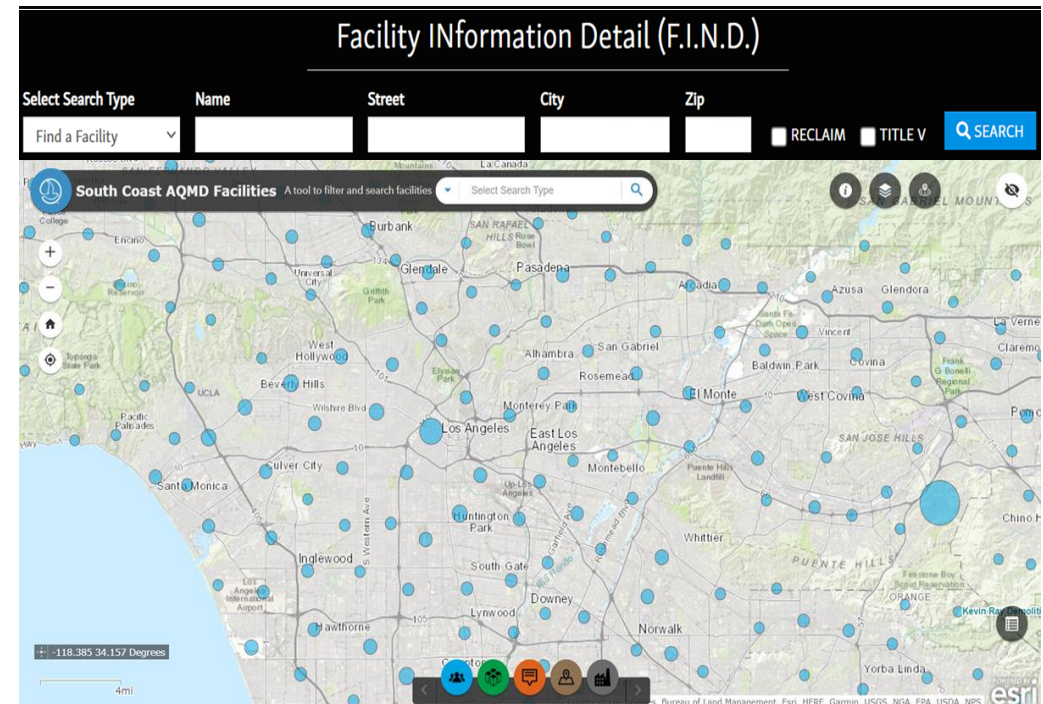
Facility Name
Address
Facility ID
Other Identifiers

What Information is Available?

Past Violations
Reported Emissions
Permitted Equipment

Where is FIND?

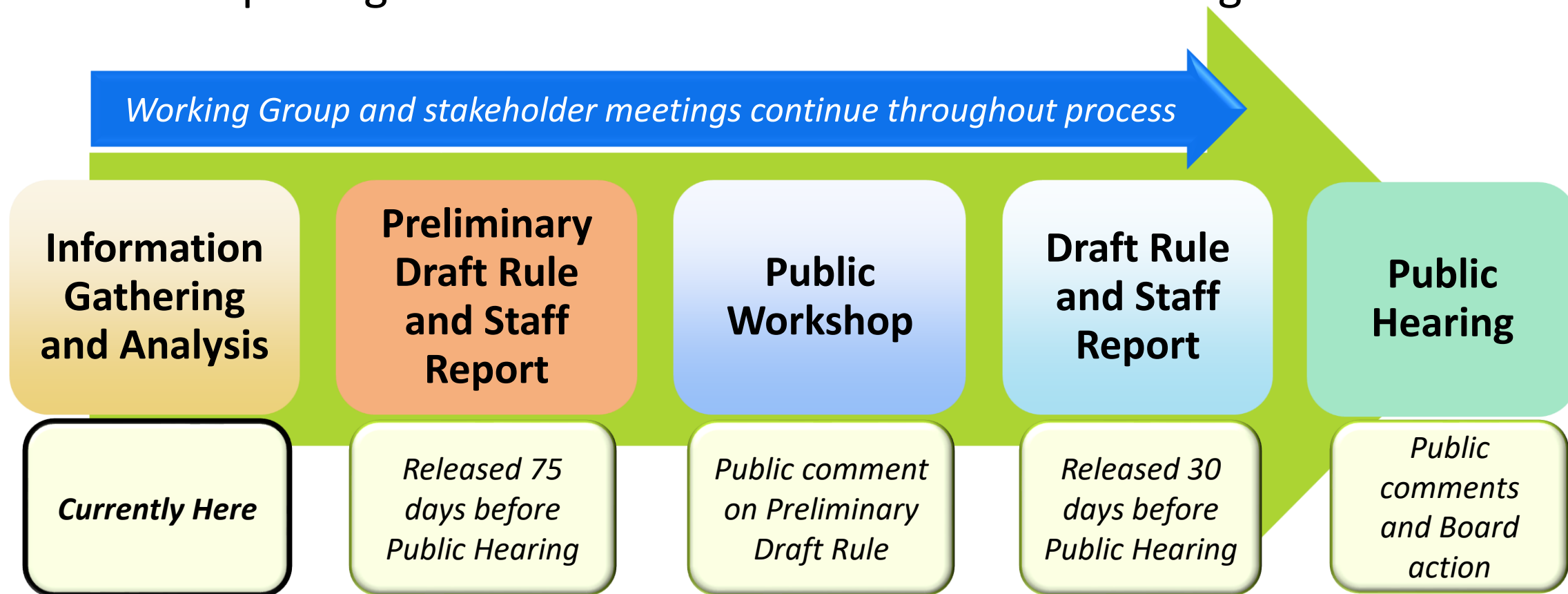
Mobile-friendly web application:
www.aqmd.gov/find
www.aqmd.gov/findmap





Comment 3: How will Rule 1157 be strengthened to ensure compliance?

- Staff is exploring effective and feasible solutions to strengthen Rule 1157





Activity Between Working Group #1

Sun Valley Community Townhall Meeting



- Senator Caroline Menjivar collaborated with South Coast AQMD to hold a townhall meeting for the Sun Valley community
- Staff presented an overview of key information pertaining to:
 - Proposed Amended Rule 1157
 - South Coast AQMD enforcement efforts
 - Community engagement



Sun Valley Community Townhall

Accountability for Aggregate Facilities

Saturday, November 15
 10 AM - 11:30 AM
 Industrial Metal Supply Co.
8300 San Fernando Rd,
Sun Valley, CA 91352

REGISTER AT:

bit.ly/CleanAir4SD20

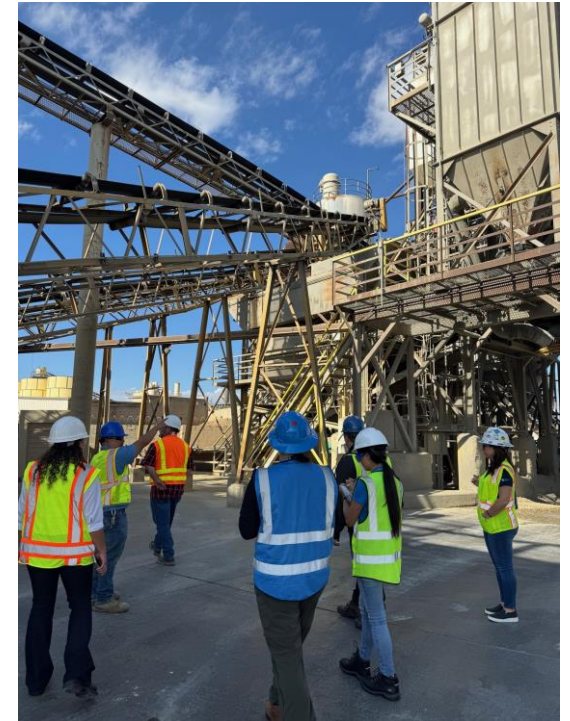
**South Coast
Air Quality
Management District**
Join us to hear updates from South
Coast AQMD's next steps to address
SB 526 Accountability for Aggregate
Facilities & Air Quality.

- Rule 1157 Updates
- Enhanced Enforcement Efforts
- Community Engagement Opportunities
- Share any concerns or questions

Site Visits



- To increase knowledge of the universe/industry, staff has conducted site visits and observations in various areas that hold different types of facilities, operations, and equipment
 - Site visit – official tours hosted by facilities
 - Observations – unannounced drive-by's around facilities/area
- A more comprehensive summary of the site visits will be provided in later slides

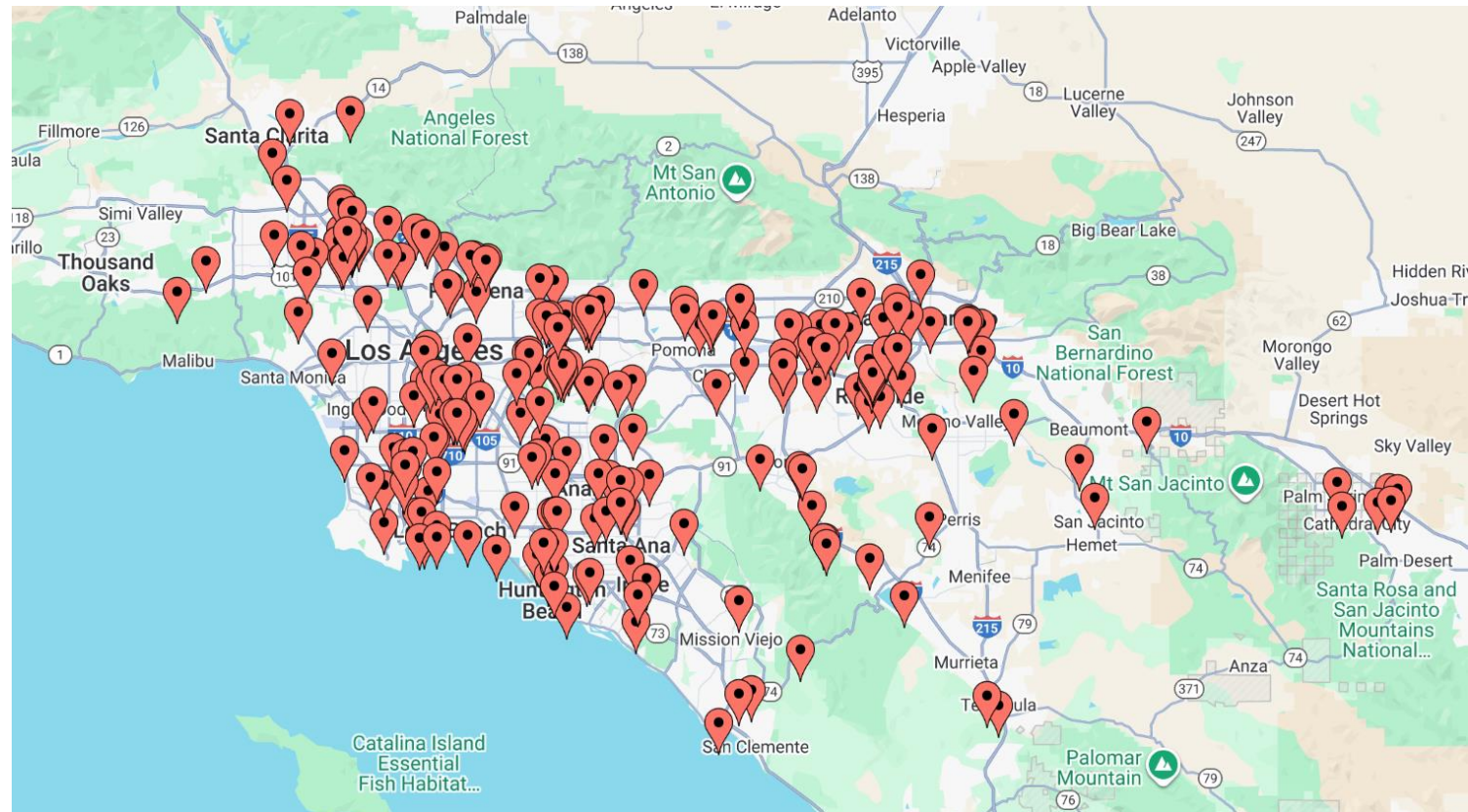




Rule 1157 Universe

Prior Rule 1157 Facility Universe

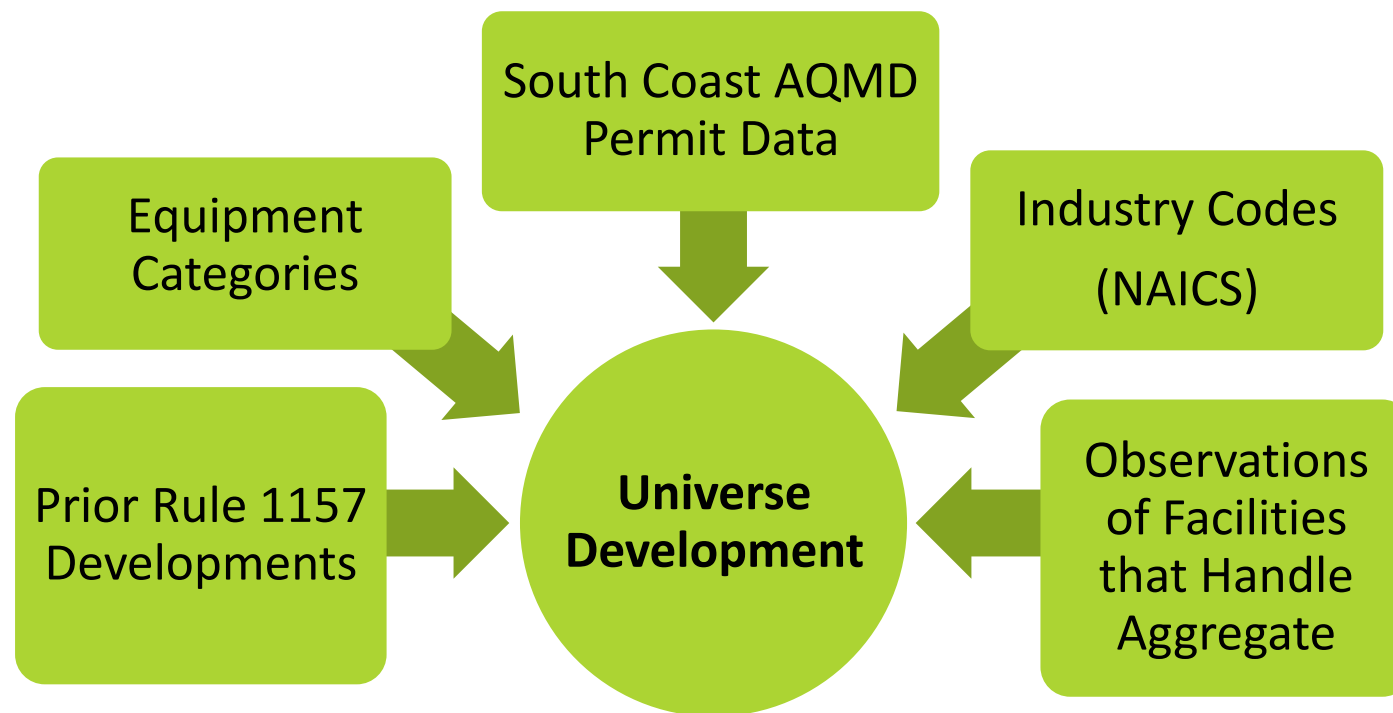
- Rule 1157 facilities are located throughout the South Coast AQMD
- Certain areas have a higher concentration of Rule 1157 facilities – compounding impacts of fugitive dust



Further Development of Facility Universe Development



- Updating facility universe based on multiple data sources
 - Affected facilities are informed of rule development
 - Ensure PAR 1157 applicability is appropriate to address sources
- Evaluation still on-going to develop categories and population





Current Rule 1157 Facility Types

Aggregate Terminology



- **Aggregate** is granular or grainy material such as gravel, crushed stone, and quarried rocks
- **Aggregate operations** produce sand, gravel, crushed stone, and quarried rocks
- **Aggregate related operations** use aggregate materials
 - e.g. concrete batch plants



Common Operations at Aggregate Facilities



Aggregate Mining



**Construction &
Demolition**



Inert Landfills



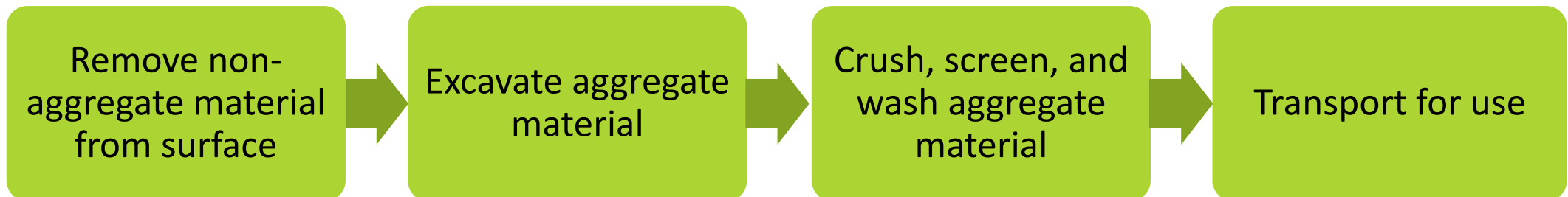
**Concrete/Asphalt
Manufacturing**



Aggregate Mining



- Extraction of materials (e.g sand, gravel, crushed stone) from Earth's surface to then be processed for various applications
- Typically located in isolated areas away from residents and other businesses





Concrete/Asphalt Manufacturing

- Operations involve transforming aggregate materials into concrete or asphalt products

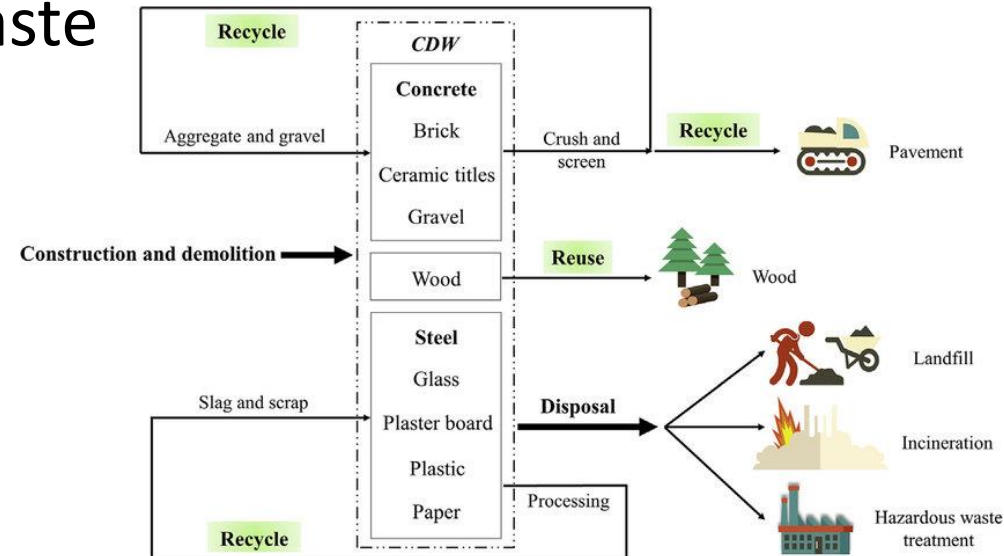
	Concrete	Asphalt
Main Components	cement and aggregates (sand and gravel/crushed stone)	bitumen and aggregates (sand, gravel, and crushed stone)
% of Aggregate in Mix	~ 60 – 75 %	~ 90 – 95 %
Production Method	mix main components with water at ambient temperatures	mix main components and heat at high temperatures

- Common facility characteristics:
 - Incoming materials for asphalt products are typically moist upon receiving
 - Paved internal roads
 - Less amount of storage piles compared to other types of aggregate operations
 - High turnover for finished goods

Construction & Demolition Waste Recycling



- Separation of construction and demolition waste to be sent to landfills or to be repurposed
- Materials for repurpose will undergo:
 - Feeder → Crush → Screen → Sort → Transport
- Activity can occur at the site of a demolished structure or at specific facility
- Only small footprint needed due to high turnover





Inert Landfills

- Preparing and managing inert materials (including aggregate) for waste disposal in deep pits
 - Identifying and segregating inert materials from other waste streams
 - Removing hazardous substances to prevent contamination and ensure environmental protection
- Aggregate material are disposed by being placed in a designated area, compacted, and covered with a cover (e.g. soil)

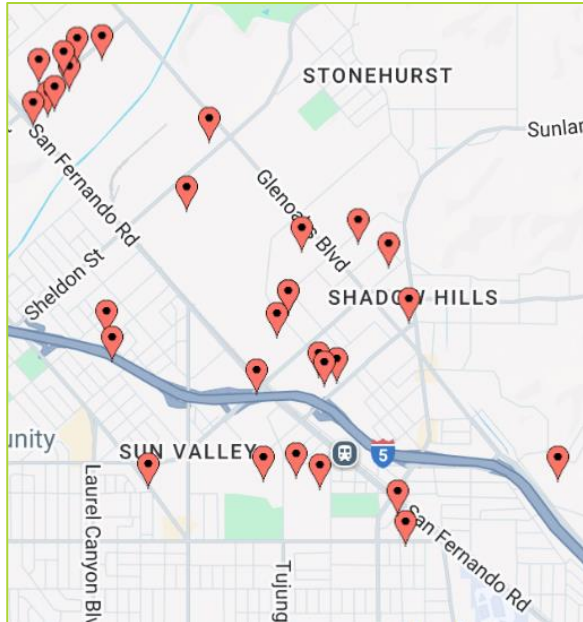




Site Visit Summary



Introduction of Site Visits



Map of Rule 1157 Facilities
Displaying High Density in
Small Area

- Site visits assist in rule development to:
 - Gain a better understanding of facility types, operations, and equipment that may be affected by rule
 - Identify air quality issues and effective practices
- Purpose of the site visits was to identify:
 - Potential sources of fugitive dust
 - Existing practices to mitigate PM₁₀ emission
 - Challenges to complying with existing Rule 1157 requirements
 - Potential regulatory gaps with existing Rule 403 and Rule 1157 requirements

Types of Facilities Visited



- Site visits were conducted in Sun Valley, Temescal Valley, and San Bernardino areas
 - Areas selected based on operations at the facility, compliance history, and feedback from working group
 - Some site visits were coordinated with CA Construction and Industrial Materials Association (CalCIMA)
 - Visited facilities are subject to existing rule requirements (e.g. Rule 1157)
- Staff observed the following operations at facilities:
 - Aggregate mining
 - Inert landfill
 - Construction and demolition waste recycling
 - Concrete/asphalt manufacturing





Observations Within Facility Boundaries

Storage piles with varying amount/height



Area of Concern



Dust accumulation on unpaved roads

Sweeping paved roads reduce dust accumulation



Dust suppressants (e.g. irrigation) reduce fugitive dust



Rumble grates reduce track out



Observations Outside Facility Boundaries

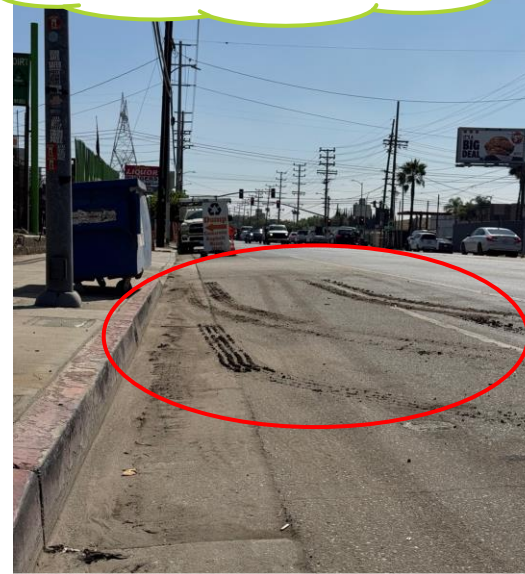


Parked cars reduce efficiency of street sweeping

High storage piles near property lines appear stabilized on typical sunny, low wind day



Area of Concern



Track out beyond property lines

Vehicles re-entraining road dust





Overview of Site Visits and Observations

- Sun Valley has a high density of facilities processing and handling aggregate near residents and other businesses
- Staff identified the following potential sources contributing to the re-entrainment of dust:
 - Stockpiles of aggregate within the facility boundary
 - Material accumulating on roads and sidewalks (internal and public)
- Further evaluation of potential sources will be discussed in the upcoming slides



Potential Source of Fugitive Dust – Storage Piles

- Storage piles can produce fugitive dust when material is moved due to wind; addition/removal of material; or movement of vehicles on storage pile

Staff Observations	Existing Rule Requirements		Regulatory Gap/ Area to Be Strengthened
Observation	Rule	Requirement	
Unable to determine if storage piles are stabilized and the method used	Rule 1157 (d)(6)	maintain stabilized condition with water irrigation system/dust suppressant application	No requirement to record stabilization method and frequency of application
	Rule 403	apply chemical suppressants, install temporary coverings, or install 3-sided enclosure	
Storage piles > 20 ft along property lines	Rule 1157 (d)(6)	height limit of ≤ 8 ft if open storage pile ≤ 300 ft of off-site occupied buildings/houses	No restrictions on storage piles near property line or public roads



Potential Source of Fugitive Dust – Vehicle Movement Within Facility Boundaries

- Vehicle movement within facility boundaries can produce fugitive dust from the accumulated dust on internal roads that is re-entrained from created wind currents

Staff Observations	Existing Rule Requirements		Regulatory Gap/ Area to Be Strengthened
Observation	Rule	Requirement	
Re-entrainment of dust on internal unpaved roads	Rule 1157 (d)(7)	maintain stabilized condition with dust suppressant application; apply gravel pads	No requirement to record stabilization method and frequency of application
	Rule 403	apply chemical suppressants, water periodically, or water 1x/day but ≤ 15 mph	
Dust accumulation on internal paved roads/sidewalks	Rule 1157 (d)(7)	sweep periodically; apply water to internal paved roads on non-sweeping days	Increase sweeping frequency based on amount of activity



Potential Source of Fugitive Dust – Track Out Outside Facility Boundaries

- Track out from a facility can accumulate on external roads that is re-entrained from created wind currents

Staff Observations	Existing Rule Requirements		Regulatory Gap/ Area to Be Strengthened
Observation	Rule	Requirement	
Track out	Rule 1157 (d)(8)	speed limit over each exit’s gravel pads/rumble grates/wheel washer	<div>Expand track out provisions</div> <ul style="list-style-type: none">• Install rumble grates at each exit/entrance• Require min. length of rumble grates at exits/entrances• Stabilize and maintain roadway between rumble grates and exits• Specific frequency for routine maintenance of rumble grates• Require installation of wheel washers for repeat violators
	Rule 403	distance limit from active operation origin; must be regularly removed	



Potential Source of Fugitive Dust – Vehicle Movement Outside Facility Boundaries

- Vehicle movement outside of facility boundaries can produce fugitive dust from the accumulated dust on external roads that is re-entrained from created wind currents

Staff Observations	Existing Rule Requirements		Regulatory Gap/ Area to Be Strengthened
Observation	Rule	Requirement	
Dust coming off vehicle beds of aggregate trucks driving on public roads	Rule 1157 (d)(1)(A)	do not cause a visible dust plume from > 100 ft	No requirement for visible dust plumes < 100 ft
	Rule 1157 (d)(8)	load height limit; stabilize load with dust suppressant application/tarp	No requirement to record stabilization method and frequency of application
Re-entrainment of dust accumulation on external roads/sidewalks	Rule 403	distance limit from active operation origin; must be regularly removed	No specific requirement to sweep external roads; no specifications on removal method



Other Methods to Prevent Fugitive Dust

- During site visits and observations of various areas, staff observed facility activities and practices that could be effective in mitigating fugitive dust

Staff Observations	Existing Rule Requirements		Regulatory Gap/ Area to Be Strengthened
Observation	Rule	Requirement	
Material loading and transfer	Rule 1157 (d)(2)	apply chemical suppressants during active operations	No requirement to record frequency of application
	Rule 403	maintain soil moisture specifications	
Some operators seem to lack knowledge on effective fugitive dust mitigation methods	Rule 403	identify on-site dust control supervisor with autonomy to employ dust mitigation measures at large operations	No requirement to have an operator trained to address fugitive dust at non-large operations (< 50 acres)



Initial Site Visit Takeaways

- Potential fugitive dust sources observed at aggregate facilities is summarized in the following table:

Source of Fugitive Dust	Rule 1157 Requirements	Effective but Strengthen or Area of Concern?
Storage Pile	Paragraph (d)(6)	Area of Concern
Paved Roads and Sidewalks	Paragraph (d)(7)	Effective but Strengthen
Unpaved Roads and Sidewalks	Paragraph (d)(7)	Area of Concern
Track Out	Paragraph (d)(8)	Area of Concern
Aggregate Loads on Vehicle Beds	Paragraph (d)(8)	Area of Concern

- Information gathered from site visits and observations will be used to develop initial rule concepts to strengthen Rule 1157 requirements



Preliminary Rule Concepts Based on Takeaways

- Preliminary rule concepts based on site visit observations:
 - Additional requirements for storage piles near public roads
 - Enhanced housekeeping to further address track-out and fugitive dust from outbound vehicles
 - Specified frequency for dust mitigation measures
 - Require training for facility operators that repeatedly violate requirements
- Further evaluation of existing requirements and operations may lead to additional requirements





Next Steps

Next Steps



Continue to obtain additional facility information to refine facility universe



Conduct site visits and stakeholder meetings



Next Working Group meeting



Draft initial rule concepts

How to file a complaint?



The public
can file
complaints
by:



Calling 1-800-CUT-SMOG
(1-800-288-7664)



Visiting www.AQMD.gov/Complaints



Using the South Coast AQMD
Mobile App

Download the app here



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PAR 1157 Staff Contacts



Please contact staff with any questions or comments

Ashley Dang


Air Quality Specialist

 (909) 396-3328

 adang@aqmd.gov

Marisa Gonzalez, Ph.D.


Air Quality Specialist

 (909) 396-2681

 mgonzalez@aqmd.gov

Neil Fujiwara


Program Supervisor

 (909) 396-3512

 nfujiwara@aqmd.gov

Michael Krause

Assistant Deputy Executive Officer

 (909) 396-2706

 mkrause@aqmd.gov