



BAY AREA
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DISTRICT

AGENDA: 3

Update on the Development of Amendments to Rule 6-5

**Stationary Source Committee Meeting
June 17, 2020**

**David Joe, PE
Assistant Manager
Rule Development**

Outline



- Overview and Background
- Rule Development Process
- Draft Amendments
- Next Steps

Overview and Background



- Fluidized catalytic cracking units (FCCUs) convert heavy components of crude oil into gasoline and high-octane products
- Large source of Particulate Matter (PM) emissions, including condensable PM
- Condensable PM formed by gas components that immediately condense upon exiting the stack and cooling
 - Oxides of Nitrogen (NO_x), Sulfur Oxides (SO_x), ammonia, and organic compound

Overview and Background (cont.)



- Rule 6-5 originally adopted in 2015
 - First step to address FCCU condensable PM
 - Requirement to reduce ammonia to limit formation of condensable PM
- 2017 Clean Air Plan
 - Included Stationary Source Sector Control Measure (SS1) to further evaluate and address FCCU condensable PM emissions

Overview and Background (cont.)



- Assembly Bill (AB) 617 Expedited Best Available Retrofit Control Technology (BARCT) Implementation Schedule
 - Adopted by Board of Directors in 2018
 - Identified potential rule development efforts to evaluate and implement BARCT at FCCUs
- Further address PM emissions, including condensable PM
- Achieve public health benefits and continue progress towards attainment of ambient air quality standards

Rule Development Process



- Staff technical research and site visits
- Early engagement with Refinery Rules Technical Working Group in 2019
- Draft amendments released in May 2020 for public review and comment

Draft Amendments to Rule 6-5



- New and modified limits on condensable components
 - Modified requirements for ammonia limit of 10 parts per million (ppm)
 - New limits on sulfur dioxide:
 - 25 ppm on a 365-day rolling average basis
 - 50 ppm on a 7-day rolling average basis
- New limit on total PM₁₀ of 0.020 gr/dscf (filterable and condensable PM)
- Additional monitoring and testing requirements
- Estimated total PM₁₀ reductions of 250 tons per year (tpy)

Next Steps



- Soliciting public review and comment
- Continued stakeholder engagement
- Socioeconomic and environmental impacts
- Anticipated consideration by the Air District's Board of Directors in November 2020



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AGENDA: 4

Regulation 11-18 Implementation Update

**Stationary Source Committee Meeting
June 17, 2020**

**Carol Allen
Assistant Manager**



Regulation 11-18 Implementation Update

- Rule Requirements
- Implementation Process
- Early Actions and Risk Reduction Projects
- Progress on Health Risk Assessments (HRAs)
- Next Steps

Regulation 11-18 Requirements



Rule Requirements

- Reduce Facility Health Risks from All Stationary Sources Below Risk Action Levels

or

- Install Best Available Controls on Each Significant Source of Health Risk

Risk Action Levels

- Cancer Risk of 10 in a million
- Chronic Hazard Index of 1.0
- Acute Hazard Index of 1.0

Significant Source Thresholds

- Cancer Risk of 1.0 in a million
- Chronic Hazard Index of 0.2
- Acute Hazard Index of 0.2

Implementation Process



Implementation Steps

1. Identify Facilities with a Potential for Elevated Health Risks
2. Collect and Validate Input Data
3. Conduct and Approve HRA
4. Approve Risk Reduction Plan (RRP)
5. Implement Risk Reduction Measures

Early Actions and Risk Reduction Projects



Facility Type	Number of Projects	Project Type	Toxic Air Contaminant (TAC) Reduced
Refinery	1	Abatement	Sulfuric Acid
Cement Mfg.	1	Process Change	Hydrogen Chloride
Metal Melting	2	Abatement	Metals
Recycling	1	Abatement	Benzene & Other Organics
Wastewater	1	Abatement	Metals

Step 1: Identify Facilities



Facilities with a Potential for Elevated Health Risks

- Phase I (36 Facilities)
 - Cancer Prioritization Score > 250 or
 - Non-Cancer Prioritization Score > 10

- Phase II (288 Facilities)
 - Cancer Prioritization Score > 100 (28 Facilities)
 - Cancer Prioritization Score of 50-100 (57 Facilities)
 - Cancer Prioritization Score of 10-50 (203 Facilities)

Step 2: Collect and Validate Data



Phase I Facilities

- Data Collection
 - Complete (35 Facilities)
 - Due July 31, 2020 (1 Facility)
- Data Validation
 - Complete (11 Facilities)
 - Underway (24 Facilities)

Phase II Facilities

- Data Collection
 - Initiate in 2020 for 28 Facilities with Prioritization Score > 100
 - Initiate in 2021-2023 for Remaining Facilities

Step 3: Conduct and Approve HRAs



Facility	HRA Status
Irvington Memorial Cemetery	Draft HRA Open for Public Comment
City of Santa Clara	Draft HRA Shared with Facility
Owens Corning Insulating Systems	Draft HRA Shared with Facility
AB&I Foundry	Draft HRA In Progress
Los Medanos Energy Center	Draft HRA In Progress
Genentech, Inc.	Draft HRA In Progress
FXI, Inc.	Draft HRA In Progress
City of Palo Alto Landfill	Draft HRA In Progress
Clover Flat Rsrcs & Rcvry Park	Draft HRA In Progress
PCC Structural	Draft HRA In Progress
Eco Services Operations Corp.	Draft HRA In Progress

Next Steps



- **Next 3 Months**

- Send six (6) more HRA's out for Facility comment
- Initiate HRAs for 12 more Phase I Facilities
- Initiate Data Collection for 14 Phase II Facilities

- **Next 6-12 Months**

- Send 14 additional HRAs out for Facility comment
- Initiate HRAs for Remaining 13 Phase I Facilities
- Initiate Data Collection for 14 Additional Phase II Facilities

- **Next 12-24 Months**

- Post Draft HRAs for All Phase I Facilities for public comment
- Post Draft Risk Reduction Plan for First Phase I Facility

Next Steps



Next Phase I HRAs (3 months)	Final Phase I HRAs (6 to 12 Months)
Chevron Products Company	Martinez Refining Company
West Contra Costa Sanitary Landfill	Valero Refining Company - CA
Chemtrade West US LLC	Tesoro Refining and Marketing Co.
Schnitzer Steel	Phillips 66 Company - SF Refining
Lehigh Southwest Cement Co.	Phillips 66 Carbon Plant
Tri-Cities Recycling	Republic Services of Sonoma Cty
Keller Canyon Landfill Co.	Redwood Landfill
Kirby Canyon Recycling & Disposal	Waste Management of Alameda Cty
Ameresco Keller Canyon, LLC	Corteva Agriscience
Browning-Ferris Industries of CA	Ball Metal Beverage Container Corp.
Air Liquide Large Industries	USS-POSCO Industries
Shell Catalysts & Technologies	International Disposal Corp. of CA
	Z-Best Composting Facility



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AGENDA: 5

Update on the Odor Attribution Study in the South Bay

**Stationary Source Committee Meeting
June 17, 2020**

**Wayne Kino
Deputy Air Pollution Control Officer**

Overview



- Background
 - South Bay Odor Stakeholder Group
 - Waste Facilities
 - Study Questions and Goals
- Project Status
- Next Steps
- Questions

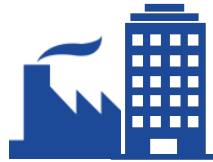
Background – South Bay Odor Stakeholder Group



Community Members



Industry Representatives



Government



Air District
Santa Clara County
Fremont
Milpitas
San Jose
Congressman Ro Khanna
Assembly Member Kansen Chu
Senator Bob Wieckowski

- Formed in 2015
- Reviewed Air District actions to date
- Identified the need for an odor study in 2019

Background – Waste Facilities



International Disposal Corp of CA (Newby Island)

- Landfill
- Material Recovery Facility
- Composting Operation

San Jose Santa Clara Regional Wastewater Facility

- Sewage Treatment Plant
- Sludge Ponds & Drying Beds

Zero Waste Energy Development (ZWED)

- Dry Anaerobic Digestion
- In-vessel Composting



Background – Study Questions and Goals



Questions

- Contribution of odors from the three facilities?
- Composition of odors?
- Variability of odors?
- Concentrations of odor-causing compounds at facility boundaries and in community?

Goals

- Inform future actions to reduce odors
 - Best practices
 - Enforcement
 - Rules
- Establish methods to measure progress on facilities' future odor reduction actions
- Educate community

Project Status



- At the November 20, 2019 Air District Board of Directors Meeting, the Board voted to approve funding and enter into contracts with;
 - Montrose Environmental Group
 - Jacobs Engineering Group, Inc.
- Contract Statement of Work Summaries
 - February 2020 - Shared with the South Bay Odor Stakeholder Group for Review and Comment
 - March 2020 - Comments Received
 - Comments Reviewed by Air District Staff
 - Incorporated Relevant Items into Sampling Plan Development
- March 2020 - Contracts Finalized and Signed

Project Status (Cont'd)



- Project Kickoff Meeting with Consultants and Air District Staff
 - April Meeting Delayed Due to COVID-19 Shelter In Place Orders
 - Virtual Meeting Held on May 13, 2020
- Items Discussed During Meeting
 - Study and Project Overview
 - Planning and Coordination
 - Facility Overviews and Tours
 - Required Background Information
 - Sampling Plan Development
 - COVID-19 Effects on “Normal” Waste Streams
- Planning/Coordination Subgroup Formed

Next Steps



- Bi-weekly Planning/Coordination Subgroup Meetings
 - First Meeting Held on June 4, 2020
- Facility Tours Scheduled for Late June 2020
 - Social Distancing Protocols will be Observed
- Background Information Being Compiled for Consultants
 - Historical (5-Year) Complaint Data
 - Historical (5 to 10-Year) Meteorological Data
 - Facility Operation and Process Information
 - Information Updated Periodically to Inform Sampling Plans

Next Steps (Cont'd)



- Develop Draft and Final Sampling Plans
 - July 2020 Draft Sampling Plan Target Date
 - Key Sampling Plan Elements will be Shared with the South Bay Odor Stakeholder Group
- Ongoing Evaluation of Shelter in Place Effects on Waste Streams
 - Food Waste Profile Representativeness
- First Sampling Event - Late July or Early August 2020
- Quarterly Updates to South Bay Odor Stakeholder Group
- Periodic Updates to Board and Committees