



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Climate and Organics BACWA Annual Meeting

January 11, 2019

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Climate & Organics Rule Development

Map to systematically reduce emissions

OIL & GAS



Regulation 13: Climate Pollutants

Significant Methane Releases [Reg. 13-1]

Natural Gas Processing & Distribution [SB 1371]

Crude Oil & Natural Gas Production [Reg. 8-37]

Refineries

BIOLOGICAL



Organic Material Handling [Reg. 13-2]

Composting [Reg. 13-3]

Sewage Treatment and Anaerobic Digestion [Reg. 13-4]

Landfills [Reg. 8-34]

Climate Protection & Organics Efforts

Rules and Regulations

| | GHGs | Odors | VOCs | Toxics |
|--|------------------------------------|-------|------|--------|
| Regulation 13: Climate Pollutants | N ₂ O, PCPs | n/a | n/a | n/a |
| Rule 13-1: Significant Methane Releases | CH ₄ | Yes | Yes | Yes |
| Rule 13-2: Organic Material Handling | CH ₄ | Yes | Yes | Yes |
| Rule 13-3: Composting Operations | CH ₄ | Yes | Yes | Yes |
| <i>Rule 13-4: Sewage Treatment / AD*</i> | CH ₄ , N ₂ O | Yes | Yes | Yes |
| <i>Rule 8-34: Solid Waste Disposal Sites</i> | CH ₄ | Yes | Yes | Yes |

*Anaerobic Digestion



Organic Material Diversion Mandates

Background

- SB 1383 requires the diversion of 50% organic material from landfills by 2020 and 75% by 2025 compared to 2014 levels
- SB 32 established a statewide GHG reduction target of 40% below 1990 levels by 2030.
- Increase in odor complaints from facilities handling organic waste

Affected Facilities

- Organic Material Handling Facilities (ex: Material Recovery Facilities) [Rule 13-2]
- Composting Operations [Rule 13-3]
- Anaerobic Digester Operations [Rule 13-4]

2017 Clean Air Plan Control Measures

| CM # | Name | Pollutants | Description |
|------|---|----------------|--|
| WA 2 | Composting Operations & Anaerobic Digesters | GHG, ROG, PM | Develop an Air District rule that includes emission limits based on best practices in other areas of the state. |
| WR 1 | POTWs | GHG, ROG, TACs | Initiate a process to better understand and quantify GHG emissions at POTWs. Explore rulemaking to reduce GHGs emitted directly within POTWs. Promote the use of biogas recovery systems at POTWs. |

Rule Development Efforts Stemming from Control Measures

- Separation of Composting and Anaerobic Digestion Rules
- Distinguishing Composting and Organic Materials Handling [Rules 13-2 and 13-3]
- Grouping of Anaerobic Digestion and POTWs due to the prevalence of wet anaerobic digesters at such facilities [Rule 13-4]



Rules 13-2 & 13-3 Regulatory Concepts

Stockpile Management

- Residency time limits for storage piles
- Height restrictions, moisture content, addition of bulking agents
- Ventilation and odor control requirements for enclosed operations

Active Composting

- Finished compost covers or biofiltration
- Control requirements dependent on feedstock
- Metrics for determining end of active phase

Monitoring and Recordkeeping

- Types, quantity, residence times of feedstock
- Operational metrics (temperature, moisture, solvita index)

Test Methods and Definitions



Regulation 13, Rule 4 Regulatory Concepts

Concepts

- Early rule development stages for Regulation 13, Rule 14
- Anaerobic Digesters are sources of GHG emission that are not addressed by specific Air District regulation

Next Steps

- Staff training
 - BACWA Presentation
 - American Biogas Council Training
- Site visits to sewage treatment plants and stand-alone anaerobic digestion facilities
- Meetings with affected stakeholders, public interest groups, LEA



Rule Implementation Timeline

| Rule # | Name | Workshop | Presentation to Board |
|--------|--|----------|-----------------------|
| 13 | Climate Pollutants | Q2 2019 | Q4 2019 |
| 13-1 | Significant Methane Leaks | Q2 2019 | Q4 2019 |
| 13-2 | Organic Material Handling | Q2 2019 | Q4 2019 |
| 13-3 | Composting Operations | Q2 2019 | Q4 2019 |
| 13-4 | Sewage Treatment & Anaerobic Digestion | Q3 2019 | Q2 2020 |
| 8-34 | Solid Waste Disposal | Q3 2019 | Q2 2020 |



Contact Information

RULE 13-4: Sewage Treatment & Anaerobic Digestion

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RULE 13-2: Organic Material Handling RULE 13-3: Composting Operations

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