18th Technical Training Series

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CalRecycle

COMPOST ODORS, COMPLAINTS, & COMPLIANCE

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Outline

- History of Jurisdiction
- Common Odor Causes
- Odor Impact Minimization Plan (OIMP)
- Complaints/Investigation
- Odor Best Management Practices Feasibility Report
- Relevant Regulations

CalRecycle and LEA's Jurisdiction

- California Health and Safety Code Section:
  - *Division 26. AIR RESOURCES PART 4. NONVEHICULAR AIR POLUTION CONTROL CHAPTER 3. Emission Limitations ARTICLE 1. General Limitations Section 41705*
    - "If a district receives a complaint pertaining to an odor emanating from a compost operation exempt from Section 41700 pursuant to paragraph (2) or (3) or subdivision (a), that is subject to the jurisdiction of an enforcement agency under Division 30 of the Public Resources Code, the district shall, within 24 hours or by the next working day, refer the complaint to the enforcement agency."
- California Public Resources Code Sections:
  - *43209.1*
    - "(a) Notwithstanding any other provisions of law, if an enforcement agency receives a complaint, pursuant to subdivision (b) of Section 41705 of the Health and Safety Code, from an air pollution control district or an air quality management district pertaining to an odor emanating from a compost facility under its jurisdiction, the enforcement agency shall, in consultation with the district, take appropriate enforcement actions pursuant to this part."

WHAT ARE SOME COMMON CAUSES OF ODOR?

Feedstock

Drainage/Ponding

Anaerobic Conditions

Title 14 CCR 17863.4 – Odor Impact Minimization Plan (OIMP)

- Provides guidance for on-site operations
  - *Odor monitoring and data collection protocol for on-site odor sources*
  - *Describes the proximity of possible odor receptors and a method for accessing odor impacts*
  - *Meteorological conditions effecting migration*
  - *A complaint response and recordkeeping protocol*
  - *Descriptions of design considerations of optimal operation to minimize odors*
  - *Descriptions of operating procedures for minimizing odor*
- Revised to reflect any changes and shall be provided to the EA within 30 days of those changes
- Reviewed annually by the operator to determine if revisions are necessary

Keys to an OIMP

- Operational Best Management Practices (BMPs)
  - *Time to process feedstock*
  - *Type of Feedstock*
  - *Amount of Material*
  - *Maintenance*
    - Water control
    - Proper aeration
  - *Turning piles*
    - Avoid windy conditions
    - During cooler times of the day
- Odor Control Measures BMPs
  - *Misters/Adding deodorant*
  - *Aeration*
  - *Biofiltration*
  - *Covering*
    - Biocap
    - Blankets/covers
  - *Enclosures*
    - Negative pressure buildings
    - Contained bays

Title 14 CCR 17863.4 – Odor Impact Minimization Plan

ALL compostable material handling operations and facilities shall prepare, implement and maintain a site specific OIMP.	**Not Required** due to Excluded Activities (Title 14 CCR 17855)
• Composting Facilities • Agricultural material composting operations • Green material composting operations and facilities • Vegetative food material composting facilities • Research composting operations • Chipping and grinding operations and facilities • Bio-solids composting operations at POTWs (Publicly owned treatment works)	• Agricultural material that doesn't leave the site • Vermicomposting • Mushroom farming • IF total amount of feedstock and compost on-site at any one time does not exceed 100 cubic yards and 750 square feet • Activity is located on facility that has tiered or full permit *See Regulation, Title 14 CCR 17855 for complete list

Title 14 CCR 18302(d) Written Complaints of Alleged Violations

- Odor Complaint related to a compostable material handling operation or facility
  - *EA shall investigate as soon as practical*
  - *Investigation shall include:*
    - Date and time EA arrived and departed
    - Weather Observations *(wind direction, speed, overall conditions)*
    - Verify odor event at the complainant's location
    - If odor is detected, document:
      - *Location(s) odor is detected*
      - *Odor characteristics (odor wheel)*
      - *Intensity of odor*
      - *Identify activities conducted at the operation*
    - Any known facts relevant to the alleged violation

Tools for Investigating

- Proactive Response
  - *Know the surrounding operations and receptors, including other possible odor sources*
- Utilize an Odor Circuit
- Revisit the OIMP

Neighborhood

Prevailing Wind

First Street

CalRecycle Way

Composting Facility

Second Street

Waste Water Treatment Plant

Odor Circuit

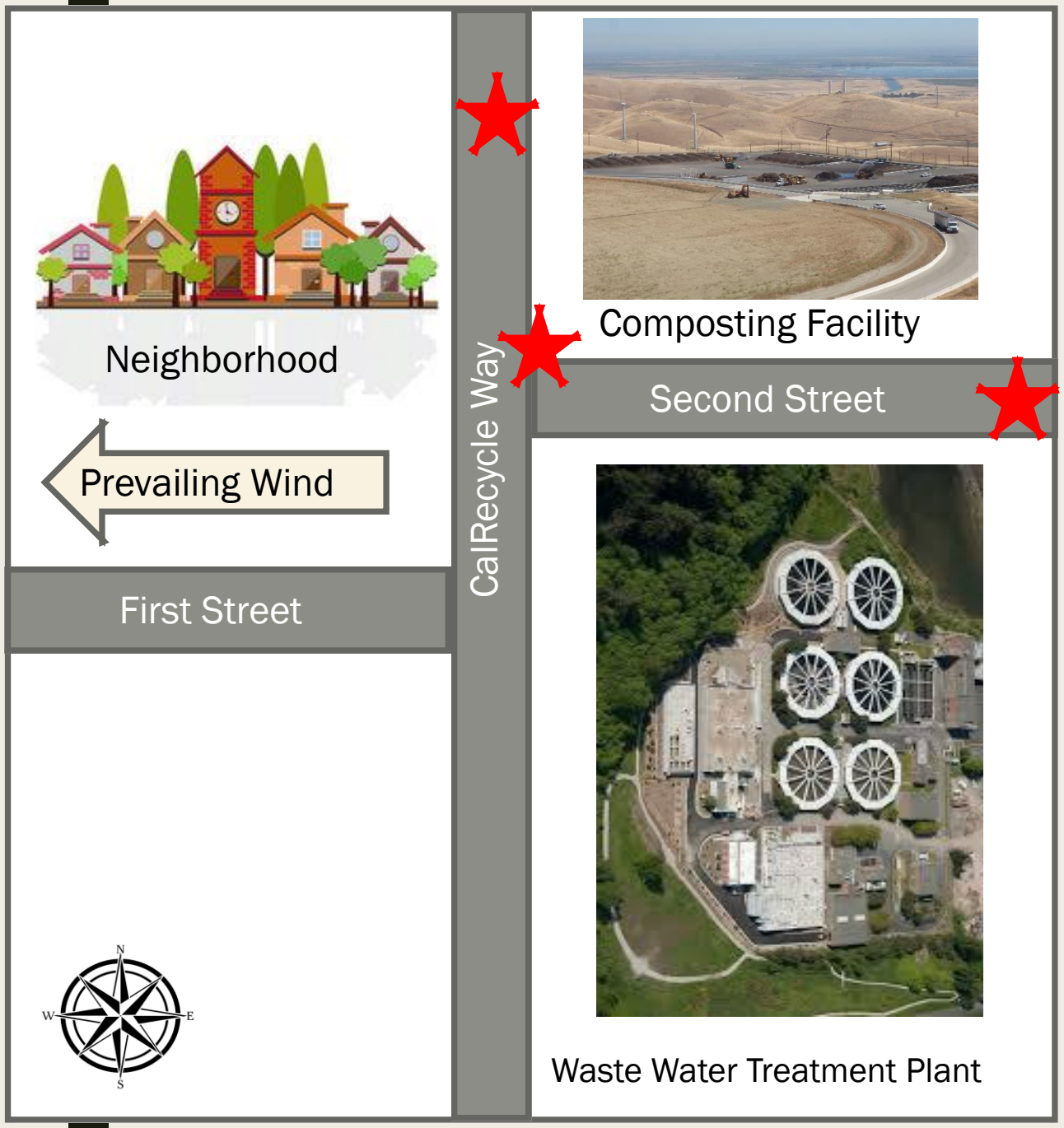
- Before the site inspection
- Upwind and downwind of facility
- Same locations
- Weather conditions (wind direction?)
- Documenting odor characteristics and & intensity

Odor Circuit Form

Facility:	
Date:	
Inspector:	
Weather:	

Location (Cross Streets)	Time	Odor Characteristics	Intensity (0-5)	Wind Speed and Direction	Temp.	Notes

Odor Circuit



Benefits of an Odor Circuit

- Familiarize with the odors and operations of the surrounding area
- Baseline odor profile
- Open Communication with Operator
- Data for the record
  - Help make correlations to determine cause of odor and possible solutions; i.e. don’t turn piles during certain weather conditions

Tools for Investigating

- Revisit OIMP/Permit
  - *Are stated BMPs being utilized?*
  - *Have operations changed on site?*
    - Change in feedstock? Amount of material?
  - *Reviewed annually and updated*

Title 14 Section 17863.4.1 Odor Best Management Practices (BMPs) Feasibility Report

What is it?

- Voluntary or EA may require the operator to prepare
- Gather and presents data on potential on-site odor sources
- Identify and rank on-site sources that are and are not contributing to odor impacts
- List and analyze BMPs that are and are not being used for odor sources
- Develop a plan and schedule for implementation of recommended BMPs

Title 14 Section 17863.4.1 Odor Best Management Practices (BMPs) Feasibility Report

How to use it?

- Tool to use when OIMP is not enough to handle chronic or ongoing odor impacts/verified complaints
- Identifying a list of site specific BMPs that are feasible and a systematic approach to trying each BMP
- Utilize before enforcement actions
- Data is useful
  - Identifying sources of odor
  - Updating the OIMP with BMPs
  - Creating compliance schedules
- Use documentation and data
  - Good faith effort by the operator

Commonly Cited & Relevant Regulations

- Title 14 CCR 17863.4 Odor Impact Minimization Plan
- Title 14 CCR 17863.4.1 Odor Best Management Feasibility Report
- Title 14 CCR 17866. General Design Requirements
- Title 14 CCR 17867. General Operating Standards
- Title 14 CCR 17867.5 Training
- Title 14 CCR 18227. Report of Compost Site Information (RCSI)
- Title 14 CCR 18302(d) Written Complaints of Alleged Violations

COMMONLY OBSERVED BMPs

Misters with added deodorant to prevent odors

Aerated Static Piles

Biocap placed on active windrows

Biofiltration of the air to scrub odors

Aeration in detention pond

Addition of chemicals to neutralize odors

Covered piles

Conclusion

- Be aware of common odor causing issues
- Ensure OIMP is being followed
  - *Revisit annually and update with any changes*
- Stay proactive- Odor Circuit
- Utilize the BMPs Feasibility Report when there are ongoing odor impacts
  - *Use before Enforcement Actions*

QUESTIONS?