CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD

Changes to the Draft General Waste Discharge Requirements for Composting Operations

INFORMATIONAL MEETINGS

Northern – Cal EPA Building
May 20, 2013

Southern – Region 8 Riverside
May 21, 2013

CALIFORNIA Water Boards

AGENDA

- Introductions
- Housekeeping
- Background
- Overview of Requirements
- Next Steps
- Questions

GOALS OF THE COMPOST GENERAL ORDER

- Protect water quality to the same extent as other wastes that pose a similar threat to water quality
- Provide streamlined permitting process if facilities meet certain requirements
- Apply to a broad array of composting facilities
- Harmonize, as feasible, with both:
    - CalRecycle's composting regulations in Title 14, and
    - CalRecycle's waste diversion efforts

OVERVIEW OF REQUIREMENTS

ACTIVITIES THAT ARE NOT COVERED UNDER THIS ORDER

- Agricultural Composting
- Chipping and Grinding Facilities and Operations
- Composting operations with requirements that are covered under existing WDRs
- Lot clearing (grubbing, tree trimming) for fire protection
- Less than 500 cubic yards on site at any given time (all materials, received, processed, and stored)
- Within vessel and fully-enclosed composting (e.g. anaerobic digesters)

COVERED ACTIVITIES – TWO TIERS

TIER I

- Facility Capacity: < 25,000 cubic yards (all materials received, processed, and stored)

- Must meet all siting criteria:
  - Depth to Groundwater based on soil percolation rate
  - Distance to Nearest Surface Water: ≥ 100 feet minimum
  - Distance to Nearest Drinking Water Supply Well: ≥ 100 feet minimum

- Feedstocks: agricultural material, green material, paper material, vegetative food material, or combination

- Additives/Amendments: < 10% by total weight of fertilizing material, manures, anaerobic digestate from feedstocks not listed above, others as approved by Executive Officer

TIER II

- Facility Capacity: ≥ 25,000 cubic yards (all materials received, processed, and stored) or < 25,000 cubic yards that do not meet all siting criteria

- Feedstocks
  - agricultural material
  - green material
  - paper material
  - vegetative food material
  - solid food materials
  - biosolids (Class EQ, A, and/or B)*
  - Manure*
  - combination of the above

- Additives/Amendments: < 30% by total weight of materials approved by Executive Officer

*pending review of consistency with other General Orders

DESIGN REQUIREMENTS – ALL TIERS

Surfaces capable of preventing degradation of waters of the state. Designed and constructed to prevent conditions that may cause contamination, pollution, or nuisance:

- Sloped to prevent ponding and impede vertical movement of waste constituents
- Reliably transmit any free liquid laterally
- Control and manage run-on, runoff, and precipitation under a maximum 25-year, 24 hour peak storm event.
- Protect from inundation from surface flows under a maximum probable 25-year, 24 hour peak storm event.
- Working surfaces capable to resisting damage from movement of equipment and weight of material piles

DESIGN REQUIREMENTS – ALL TIERS (continued)

Water Management Options – Submit a *Water Management Plan*

- Discharge process water pollutants under an individual NPDES wastewater discharge permit.
- Detention Pond
  - Contain all precipitation and run-off from a minimum 25-year annual return period.
  - Water in pond must be managed to prevent overtopping or overflow.

Drainage/Conveyance

- Ditches sized to convey all precipitation and run-off from a 25-year, 24-hour peak storm event.
- Sloped and maintained to keep liquid flowing.
- Inspected and cleaned out every year.

DESIGN REQUIREMENTS – TIER II ONLY

Pad and Drainage/Conveyance Design

- Hydraulic Conductivity – 1.0 x 10^{-5} cm/sec
  - Asphalt concrete
  - Portland cement concrete
  - Compacted soils, with minimum thickness of 1 foot
  - Equivalent engineered alternative
- In lieu of hydraulic conductivity, applicant may propose a Groundwater Protection Monitoring Program that must be approved by the Executive Officer.

DESIGN REQUIREMENTS – TIER II ONLY (continued)

Pond Design

- Meet hydraulic conductivity of 1.0×10^{-6} cm/sec or less
  - 40-mil synthetic geomembrane (60-mil if HDPE) underlain by 1 foot of either compacted clay or GCL over a prepared base
  - Portland cement concrete underlain by 40-mil synthetic geomembrane (60-mil if HDPE)
  - Equivalent engineered alternative
- Must be constructed with a pan lysimeter monitoring device

MONITORING AND REPORTING REQUIREMENTS

Facility Inspections

- Annual winterization survey and maintenance
- Quarterly site inspections

Wastewater Detention Pond Monitoring

- Quarterly inspections of pond construction and capacity
- Annual water sampling

Pond Detection Monitoring of the Pan Lysimeter (Tier II only)

- Monthly checks during wet season
- Initiate response actions if liquid is detected

Annual Monitoring and Maintenance Report

- Working Surface Conditions and Maintenance
- Wastewater Detection Pond Monitoring and Maintenance
- Pond Detection Monitoring (Tier II only)

Water Quality Monitoring Constituents

Field Parameters

- pH, dissolved oxygen, specific conductance, temperature, turbidity

General Parameters

- Ammonia as nitrogen, biochemical oxygen demand (BOD), fecal coliform, nitrite as nitrogen, ortho-phosphate, phosphorus, total dissolved solids (TDS), total Kjeldahl nitrogen (TKN), total organic carbon (TOC)

General Minerals

- Bicarbonate alkalinity, calcium, chloride, magnesium, nitrate as nitrogen, potassium, sodium, sulfate

Dissolved Metals

- Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium (III), copper, iron, lead manganese, mercury, molydbenum, nickel, selenium, thalium, vanadium, zinc

Next Steps

- Programmatic Environmental Impact Report and General Order
  - CEQA Public Scoping Meeting (July or August 2013)
  - Contractor procurement (~October 2013)
  - Release of Draft EIR and Draft General Order (~June 2014)
  - Final EIR and General Order (~December 2014)

- Board Hearing and Adoption – early 2015

- Reminders:
  - Sign up to receive information on our listserv: http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml#quality
    - Check "Composting Operations"
  - Visit our webpage: http://www.waterboards.ca.gov/water_issues/programs/compost/

Contact:

EMAIL QUESTIONS: Composting@waterboards.ca.gov

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