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
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
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.
Pad and Drainage/Conveyance Design

- Hydraulic Conductivity – $1.0 \times 10^{-5}$ 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.
Pond Design

- Meet hydraulic conductivity of $1.0 \times 10^{-6}$ 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, molybdenum, 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_subscriber.shtml#quality
    • Check “Composting Operations”
  • Visit our webpage:
    http://www.waterboards.ca.gov/water_issues/programs/compost/
EMAIL QUESTIONS: Composting@waterboards.ca.gov

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