

**DRAFT REQUIREMENTS**  
**General Waste Discharge Requirements for Composting Operations**  
**August 16, 2013**

Requirement Type	Tier I	Tier II
<b>Applicability</b>		
Activities not required to obtain coverage under this General Order	i. Agricultural Composting; ii. Chipping and Grinding Facilities and Operations; iii. Composting operations included with requirements under existing Waste Discharge Requirements or other general waste discharge requirements; iv. Lot Clearing (i.e., grubbing, tree trimming, etc.) for fire protection; v. Composting less than 500 cubic yards of allowable materials on site at any given time; vi. Within Vessel and Fully-Enclosed Composting (e.g., anaerobic digesters).	
Total Facility Capacity	< <b>25,000 cy</b> (all allowable materials received, processed, and stored: feedstock, amendments, active and curing composting, and finished product) <b>and</b> meets the siting criteria below.	≥ <b>25,000 CY</b> (all allowable materials received, processed, and stored: feedstock, amendments, active and curing composting, and finished product) or < 25,000 cy which does not meet the siting criteria for depth to groundwater, distance to surface water, and distance to nearest drinking water supply well
Depth to Groundwater	Dependent on Soil Percolation Rate as follows (minutes per inch - MPI using percolation test): < 1 MPI : 50 feet 1 MPI - 5 MPI: 20 feet > 5 MPI - 30 MPI: 8 feet > 30 MPI : 5 feet	
Distance to Surface Water	≥ 100 feet	≥ 100 feet
Distance to nearest drinking water supply well	≥ 100 feet	≥ 100 feet
Allowable Feedstocks	agricultural material, green material, paper material, vegetative food material, or a combination of these feedstocks, including anaerobic digestate derived from the acceptable feedstocks	agricultural material, green material, paper material, vegetative food material, biosolids (Class A, B, and/or Biosolids EQ which meet CFR Title 40, Part 503.13 Table 3 limits), food materials, manure, or a combination of these feedstocks, including anaerobic digestate derived from the acceptable feedstocks
Prohibited Feedstocks	a. Animal carcasses; b. Any feedstock, additive, or amendment other than those applicable or listed in an approved Notice of Intent; c. Liquid wastes other than those of food origin that has been approved by the Executive Officer; d. Medical wastes as defined in the Health and Safety Code, section 117690; e. Radioactive Wastes; f. Septage; g. Sludges, including but not limited to sewage sludge, water treatment sludge, and industrial sludge; h. Wastes classified as "hazardous" as defined in the Cal. Code Regs., title 22, section 66261.3; and i. Wood containing lead-based paint or wood preservatives, or ash from such wood.	
Additives/Amendments	Total no more than 10% on a total weight basis of the following: fertilizing material; manures; anaerobic digestate from other feedstocks not listed in this tier; and other approved by the Executive Officer.	Total no more than 30% on a total weight basis of the following: fertilizing material, liquid food material, and other approved by the Executive Officer.

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<b>Construction</b>		
Pads	Surfaces must be capable of preventing degradation of waters of the state. Such structures are designed, constructed, and maintained to: (1) sloped to prevent ponding and impede vertical movement of liquid phase constituents of concern; (2) reliably transmit any free liquid laterally to a containment structure; and (3) prevent conditions that could cause a condition of contamination, pollution, or nuisance.	
	Control and manage all run-on, runoff, and precipitation from all operational and storage areas under conditions of a maximum probable 25-year, 24 hour peak storm event. Protect areas from inundation by surface flows associated with a 25 year, 24 hour peak storm event.	
		<p>All working surfaces must be capable of resisting damage from movement of mobile operating equipment and weight of piles and have a hydraulic conductivity of <math>1.0 \times 10^{-5}</math> cm/s or less, which consists of one of the following:</p> <p>(a) Compacted soils, with a minimum thickness of one foot;            (b) Asphaltic concrete or Portland cement concrete; or            (c) An equivalent engineered alternative as proposed in an approved NOI.</p> <p>In lieu of meeting the hydraulic conductivity requirement prescribed above, the applicant may propose to perform a groundwater protection monitoring program. If this choice is selected, the applicant must submit a <i>Groundwater Protection Monitoring Program Work Plan</i> to the Executive Officer for approval.</p>
Wastewater Handling System (i.e. pond, tanks)	<p>Applicant shall provide a <i>Water and Wastewater Management Plan</i> that describes how the wastewater will be managed to prevent discharge. The <i>Water and Wastewater Management Plan</i> shall describe the design, operations, and maintenance of the systems, including water balance calculations and assumptions.</p> <p>Wastewater handling system must be designed and operated to manage all wastewater from a minimum 25-year return annual total precipitation value* distributed monthly in accordance with average (mean) precipitation values or equivalent engineered alternative approved by the Executive Officer.</p> <p>*<a href="http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#">http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#</a></p>	<p>Applicant shall provide a <i>Water and Wastewater Management Plan</i> that describes how the wastewater will be managed to prevent discharge. The <i>Water and Wastewater Management Plan</i> shall describe the design, operations, and maintenance of the systems, including water balance calculations and assumptions.</p> <p>Wastewater handling system must be designed and operated to manage all wastewater from a minimum 25-year return annual total precipitation value* distributed monthly in accordance with average (mean) precipitation values or equivalent engineered alternative approved by the Executive Officer.</p> <p>*<a href="http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#">http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#</a></p>

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		<p>If using a pond, liners must meet a hydraulic conductivity of <b><u>1.0 x10<sup>-6</sup> cm/s</u></b> or less, which consist of one of the following:</p> <p>(a) A liner system consisting of a 40-mil synthetic geomembrane (60-mil if high-density polyethylene) underlain by either one foot of compacted clay, or a geosynthetic clay liner that is installed over a prepared base;</p> <p>(b) A liner system that includes portland cement concrete underlain by a 40-mil synthetic geomembrane (60-mil if high-density polyethylene); or</p> <p>(c) An equivalent engineered alternative approved by the Executive Officer.</p> <p>If using a pond, it must be designed and constructed with a pan lysimeter monitoring device under the lowest point of the pond or equivalent alternative approved by the Executive Officer. In addition, ponds must be designed and operated to maintain a dissolved oxygen concentration of at least 1.0 mg/L to prevent anaerobic conditions.</p> <p>If using tanks (i.e. above or underground), must be designed, operated, maintained and monitored in accordance with applicable laws and regulations.</p>
Drainage/Conveyance	Ditches must be sized to convey all precipitation and runoff from a 25-year, 24-hour peak storm event. Ditches must be properly sloped to prevent ponding and kept free and clear of debris to allow for continuous flow of liquid. Ditches must be inspected and cleaned out prior to the rainy season every year.	<p>Drainage ditches must be designed to convey all precipitation and runoff from a 25-year, 24-hour peak storm event and meet a hydraulic conductivity of <b><u>1.0 x10<sup>-5</sup> cm/s</u></b> or less, which consists of one of the following:</p> <p>(a) Compacted soils, with a minimum thickness of one foot;</p> <p>(b) Asphaltic concrete or Portland cement concrete; or</p> <p>(c) An equivalent engineered alternative approved by the Executive Officer.</p> <p>Ditches must be properly sloped to prevent ponding and kept free and clear of debris to allow for continuous flow of liquid. Ditches must be inspected and cleaned out prior to the rainy season every year.</p>
Berms	If used, must prevent run-on to and runoff from the CMU from a 25-year, 24-hour peak storm event.	Berms must prevent run-on to and runoff from a 25-year, 24-hour peak flow storm event
Storm Water/ Wastewater	Composting Operations may be required to comply with the Industrial Storm Water General Permit Order 97-03-DWQ ( <i>General Industrial Permit</i> ). If discharging stormwater that was unable to meet the requirements of the General Industrial Permit, must obtain appropriate National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit.	

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<b>Monitoring</b>		
Facility Inspections	Annual winterization survey and maintenance activities. Quarterly site inspections of the surface and drainage.	
Water Quality	Wastewater Handling System Monitoring: perform quarterly inspections of the system, estimate available capacity and volume, and ancillary structures. If using a pond, conduct annual monitoring of the liquid within the pond in Spring (when there is sufficient water to sample).	
		If using a pond, the pan lysimeters shall be checked monthly during the wet season for fluid. Upon detection of fluid, contact the Regional Water Board within 48 hours; collect a sample and analyze for the list of constituents below; remove liquid from the monitoring device; and monitor weekly for the remainder of the season. If liquid reappears in the same season, collect and analyze the sample for the same list of constituents. If a release is confirmed, submit a <i>Response Action Plan</i> for review and approval by Regional Board staff.
		If using tanks, must be monitored in accordance with applicable laws and regulations.
Constituents of Concern	Field Parameters (pH, dissolved oxygen, EC, temperature, turbidity); General (TDS, Ammonia, BOD, Nitrite, Ortho-Phosphate, phosphorus, fecal coliform, TKN, total organic carbon); General Minerals (bicarbonate alkalinity, chloride, sulfate, nitrate, calcium, sodium, magnesium, potassium); Dissolved Metals (aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, Iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, vanadium, and zinc)	
<b>Reporting</b>		
Report	Annual Monitoring and Maintenance Report, includes Working Surface Conditions and Maintenance Report, Detention Pond Monitoring and Maintenance Report, and results from detection monitoring (if applicable)	
Revised Notice of Intent	Submit a revised Notice of Intent at least 180 days prior to (1) any significant changes to the operations; (2) any proposed changes to the Design Specification; (3) any proposed change to the monitoring program; or (4) any change to the activities that may affect compliance.	
Design Report and Construction Quality Assurance Plan	Submit a <i>Design Report</i> and a <i>Construction Quality Assurance Plan</i> at least 60 days prior to any new construction of any working surfaces, wastewater ponds, berms, ditches, or other protection containment structure for approval prior to construction.	
Final Construction Quality Assurance Report	Submit a <i>Final Construction Quality Assurance Report</i> within 30 days after completion of any construction documenting that the structures were constructed in accordance with the <i>Design Report</i> and tested as outlined in the approved <i>Construction Quality Assurance Plan</i> .	
Violation Notification Requirements	If the Discharger determines a violation of the requirements of the General Order occurred, the Discharger must notify the appropriate Regional Water Board by telephone within 48-hours once the Discharger has knowledge of the violation. This notification must include a description of the noncompliance and its cause, the period of noncompliance (providing exact dates and times); and if the noncompliance has not been corrected: the anticipated time the noncompliance is expected to continue. Also included in the notification must be steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. Depending on the severity of the violation, the Regional Water Board may require the Discharger to submit a separate technical report regarding the violation within 10 working days of the initial notification.	
<b>Enrollment</b>		
New Operations	Must file Notice of Intent, filing fee, and technical report not less than 6 months prior to anticipated construction. Must receive Notice of Applicability prior to operating.	
Existing Operations	Must file Notice of Intent, filing fee, and technical report within 1 year of adoption of the Order. The Technical Report shall include a schedule for full compliance and must be as short as practicable but may not exceed 5 years from the date the Notice of Applicability is issued.	