

**DRAFT Composting General Order Requirements**  
**May 2013**

Requirement Type	REVISED	
	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 activities with requirements that are covered under existing WDRs; iv. Lot Clearing (i.e., grubbing, tree trimming, etc.) for fire protection; v. Composting less than 500 cubic yards of all materials on site at any given time; vi. Within Vessel and Fully-Enclosed Composting (e.g., anaerobic digesters).	
Total Facility Capacity	< 25,000 cy (all materials received, processed, and stored: feedstock, amendments, active and curing composting, and finished product) <b>and</b> meets the siting criteria below.	≥ 25,000 CY (all 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	
Distance to nearest drinking water supply well	≥ 100 feet	
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 EQ, A, and/or B), food materials, manure, or a combination of these feedstocks, including anaerobic digestate derived from the acceptable feedstocks
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 <u><math>1.0 \times 10^{-5}</math> cm/s</u> or less, and meet one of the following construction and material specifications:</p> <p>(a) Soil Asphalt concrete or Portland cement concrete;            (b) Compacted soils, with a minimum thickness of one foot; 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>
Ponds	Ponds must be designed to contain all precipitation and runoff from a minimum 25-year annual return period. Water within the pond must be managed to prevent the overtopping or overflow of liquids. Applicant shall provide a <i>Water Management Plan</i> that describes how the water in the pond will be managed to prevent discharge.	
		<p>Pond liners must meet a hydraulic conductivity of <u><math>1.0 \times 10^{-6}</math> cm/s</u> or less, and may be constructed of the following materials:</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;            (b) A liner system that includes portland cement concrete underlain by a 40-mil synthetic geomembrane (60-mil if high density polyethylene); or            (c) An equivalent engineered alternative approved by the Executive Officer.</p> <p>Ponds must be designed to contain all precipitation and runoff from a minimum 25-year annual return and water within it to must be managed to prevent the overtopping or overflow of liquids. Applicant shall provide a <i>Water Management Plan</i> that describes how the water in the pond will be managed to prevent discharge.</p> <p>Ponds must be designed and constructed with a pan lysimeter monitoring device under the lowest point of the pond.</p>

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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.	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 $1.0 \times 10^{-5}$ cm/s or less, and may be constructed of the following materials: (a) Soil Asphalt concrete or Portland cement concrete; (b) Compacted soils, with a minimum thickness of one foot; or (c) An equivalent engineered alternative approved by the Executive Officer. 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.
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 Facilities may be required to comply with the Industrial Storm Water General Permit Order 97-03-DWQ ( <i>General Industrial Permit</i> ). If discharging process or contaminated non-process water that was unable to meet the requirements of the General Industrial Permit, must obtain appropriate National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit or convey to a detention pond (see pond requirements).	
<b>Monitoring</b>		
Facility Inspections	Annual winterization survey and maintenance activities.	
	Quarterly site inspections of the surface and drainage.	
Water Quality	Detention Pond Monitoring: perform quarterly inspections of the pond's liner, estimate available capacity and volume, and ancillary structures. Conduct annual monitoring of the liquid within the pond in Spring (when there is sufficient water to sample).	
		Detection Monitoring: Pan lysimeters shall be checked monthly during the wet season for fluid. Upon detection of fluid, contact the Regional Water Board within 48 hours and collect a sample and analyze for the same list of constituents as required for detention pond monitoring.
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)	
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.	