

DRAFT REQUIREMENTS
General Waste Discharge Requirements for Composting Operations
(Revised May 29, 2015)

[Proposed Additions - Blue Double Underlined & Proposed Deletions - ~~Red Strikethrough~~]

Requirement Type	Tier I	Tier II
Applicability		
Activities not required to obtain coverage under this General Order	a. Agricultural Composting; b. Chipping and grinding facilities and operations. <u>This includes chipping and grinding facilities and operations at a composting facility if located outside of the composting operations area.</u> c. Lot clearing by local governmental agencies (i.e., grubbing, tree trimming, etc.) for fire protection; d. Composting activities that are within a fully-enclosed vessel; e. Composting operations that receive, process, and store less than 500 cubic yards (cy) of allowable materials at any given time; f. Composting operations that receive, process, and store less than 5,000 cy per year of allowable Tier I or Tier II feedstocks, additives, and amendments, and implement the following management practices: (1) Completely cover all materials during rain events to prevent <u>reduce</u> the generation of contaminated non-process wastewater and leachate ; and (2) Manage the application of process water to prevent the production of leachate <u>reduce the generation of wastewater.</u>	
Total Facility Capacity	< 25,000 cy (combination of Tier I allowable materials received, processed, and stored: feedstocks, amendments) and meets the siting criteria below.	≥ 25,000 cy (all allowable materials received, processed, and stored: feedstocks, amendments) or < 25,000 cy which does not meet the siting criteria for depth to groundwater, distance to surface water, and distance to nearest 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 water supply well	≥ 100 feet	≥ 100 feet
Allowable Feedstocks	<ul style="list-style-type: none"> • Agricultural materials • Green materials • Paper materials • Vegetative food materials • Anaerobic digestate derived from allowable Tier I feedstocks • A combination of allowable Tier I feedstocks 	<ul style="list-style-type: none"> • Food materials (non-vegetative) • Biosolids (Class A, B, and/or EQ) • Manure • Anaerobic digestate derived from allowable Tier II feedstocks • A combination of allowable Tier I and Tier II feedstocks
Prohibited Feedstocks	a. Animal carcasses; b. Liquid wastes other than those of food origin; c. Medical wastes as defined in the Health and Safety Code, section 117690; d. Radioactive wastes; e. Septage; f. Sludges, including but not limited to sewage sludge, water treatment sludge, and industrial sludge; g. Wastes classified as "designated" as defined in Water Code section 13173; h. Wastes classified as "hazardous" as defined in the Cal. Code Regs., title 22, section 66261.3; i. Wood containing lead-based paint or wood preservatives, or ash from such wood; or j. Any feedstock, additive, or amendment other than those specifically described in the General Order <u>unless approved by the Regional Water Board.</u>	
Additives and Amendments	No more than 10 percent combined, on a total volume basis, <u>of the total feedstocks for any given batch of compost</u> , of the following: fertilizing material at rates that will be consumed or <u>fixed</u> /immobilized during composting; manure; anaerobic digestate (solid) from other feedstocks not listed in this tier <u>or under the Prohibitions section</u> ; and other materials approved by the Regional Water Board.	No more than 30 percent combined (<u>other than liquid food material</u>), on a total volume basis, <u>of the total feedstocks for any given batch of compost</u> , of the following: fertilizing material at rates that will be consumed or <u>fixed</u> /immobilized during composting, liquid food material, anaerobic digestate (solid) not listed <u>in this tier or</u> under <u>the</u> Prohibitions section, and other materials approved by the Regional Water Board.
Amendments	<u>For Tier I and Tier II facilities, the type and amounts of amendments must be specified in a NOI and/or a technical report, and approved by the Regional Water Board.</u>	
Prohibited Additives and Amendments	Use of biosolids as an additive or amendment is prohibited .	Use of biosolids as an additive or amendment is prohibited.

Requirement Type	Tier I	Tier II
Construction		
Pads	<p>Surfaces must be capable of preventing degradation of waters of the state. Such structures are designed, constructed, operated, and maintained to: (1) facilitate drainage and minimize ponding by sloping or crowning pads to reduce infiltration; (2) reliably transmit any free liquid to a containment structure; and (3) prevent conditions that could lead to contamination, pollution, or nuisance.</p> <p>Control and manage all run-on, runoff, and precipitation from all areas used for receiving, processing, or storage, under conditions of a 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>	<p>Working surfaces must be capable of resisting damage from movement of operating equipment and weight of piles, have a hydraulic conductivity of 1.0×10^{-5} cm/s or less, and consist 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 Regional Water Board.</p> <p>In lieu of meeting the hydraulic conductivity requirement prescribed above, the applicant may propose to implement a groundwater protection monitoring program. If this choice is selected, the applicant must submit a Groundwater Protection Monitoring Program Plan in the Technical Report with the Notice of Intent.</p>
Wastewater Handling System (e.g. pond, tanks)	<p>Applicant must submit for approval a <i>Water and Wastewater Management Plan</i> that describes how the wastewater will be managed to prevent discharge. The plan must describe the design, operations, and maintenance of the systems, including water balance calculations and assumptions.</p> <p><u>Detention ponds, if used, must be designed, constructed, and maintained to prevent conditions contributing to, causing, or threatening to cause contamination, pollution, or nuisance, and must be capable of containing, without overflow or overtopping (taking into consideration the crest of wind-driven waves and water reused in the composting operation), all wastewater from the working surfaces in addition to precipitation that falls into the detention pond from a 25-year, 24-hour peak storm event at a minimum.</u></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 Regional Water Board.</p> <p>*http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#</p>	<p>Applicant must submit for approval a <i>Water and Wastewater Management Plan</i> that describes how the wastewater will be managed to prevent discharge. The plan must describe the design, operations, and maintenance of the systems, including water balance calculations and assumptions.</p> <p><u>Detention ponds, if used, must be designed, constructed, and maintained to prevent conditions contributing to, causing, or threatening to cause contamination, pollution, or nuisance, and must be capable of containing, without overflow or overtopping (taking into consideration the crest of wind-driven waves and water reused in the composting operation), all wastewater from the working surfaces in addition to precipitation that falls into the detention pond from a 25-year, 24-hour peak storm event at a minimum.</u></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 Regional Water Board.</p> <p>*http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/#</p>
		<p>Detention pond liners must meet a hydraulic conductivity of 1.0×10^{-6} cm/s or less and include 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 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 Regional Water Board.</p>

Requirement Type	Tier I	Tier II
Construction, continued		
Wastewater Handling System (e.g. pond, tanks)		<p>Detention ponds must be designed and constructed with a pan lysimeter monitoring device under the lowest point of the pond or equivalent alternative approved by the Regional Water Board. 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>Tanks, if used (i.e. above or underground), must be designed, operated, maintained and monitored in accordance with applicable laws and regulations.</p>
Drainage/Conveyance	<p><u>Drainage conveyance systems must be designed, constructed, and maintained for conveyance of wastewater from the working surface in addition to direct precipitation from a 25-year, 24-hour peak storm event at a minimum.</u> Ditches must be sized to convey all precipitation and runoff from a 25-year, 24-hour peak storm event.</p> <p>Ditches must be properly sloped to minimize ponding and kept free and clear of debris to allow for continuous flow of liquid.</p> <p>Ditches must be inspected and cleaned out prior to the rainy season every year.</p>	<p>Drainage <u>conveyance systems must be designed, constructed, and maintained for conveyance of wastewater from the working surface in addition to direct precipitation from a 25-year, 24-hour peak storm event at a minimum</u> 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 1.0×10^{-5} cm/s or less, and consist 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 Regional Water Board.</p> <p>Ditches must be properly sloped to prevent <u>minimize</u> 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	Berms must prevent run-on to and runoff from a 25-year, 24-hour peak storm event.	Berms must prevent run-on to and runoff from a 25-year, 24-hour peak storm event.
Storm Water/Wastewater	Composting Operations may be required to enroll under the Industrial Storm Water General Permit Order 97-03-DWQ (<i>Industrial General Permit, new Industrial General Permit 2014-0057-DWQ will be effective July 1, 2015</i>) or obtain appropriate National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit.	
Monitoring		
Facility Inspections	<p>The Discharger must regularly inspect and maintain all containment , control, and monitoring structures pursuant to this General Order, the Monitoring and Reporting Program, and Notice of Applicability. Inspection frequency must be sufficient to prevent discharges of feedstocks, additives, amendments, compost, or wastewater from creating or contributing to contamination, pollution or nuisance.</p> <p>Dischargers must perform quarterly site inspections of the working surface, berms, ditches, facility perimeter, erosion control best practicable treatment and control, and any other operational surfaces.</p>	
Water Quality	<p>Wastewater Management System: perform quarterly inspections of the system, estimate available capacity and volume, and ancillary structures. If using a pond, conduct quarterly sampling of the liquid within the pond. (when there is sufficient water to sample).</p>	<p>The detention pond leak detection monitoring device (i.e., the pan lysimeter) must be checked monthly during the wet season for liquid. Upon detection of liquid, 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 continue to monitor weekly. If liquid reappears, collect and analyze the sample for the same list of constituents. If wastewater is confirmed, submit a <i>Response Action Plan</i> for review and approval by Regional Board staff.</p> <p>Tanks, if used, must be monitored in accordance with applicable laws and regulations.</p>

Requirement Type	Tier I	Tier II
Monitoring, continued		
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 (total), copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, vanadium, and zinc)	
Monitoring Requirements	**See below for revised Monitoring Requirements**	
- Pond	pH, dissolved oxygen, total dissolved solids, fixed dissolved solids, total nitrogen , specific conductance (electrical conductivity) - conducted quarterly	
- Groundwater	groundwater elevation, depth to groundwater, gradient, gradient direction, pH, TDS, nitrate as nitrogen, sodium, chloride, total coliform organism - conducted quarterly if this alternative is selected	
- Biosolids	Proof of compliance with ceiling concentrations of 40 CFR 503.13, Table 1, or conduct testing.	
Reporting		
Notice of Intent	Submit a complete Notice of Intent, including the appropriate filing fee (Cal. Code Regs., tit. 23, § 2200) and a technical report to the Regional Water Board not less than 90 days prior to commencement of a composting operation.	
Revised Notice of Intent	Submit a revised Notice of Intent at least 90 days prior to: (1) adding a new feedstock, additive, or amendment; (2) changing material or construction specifications; (3) changing a monitoring program; or (4) changing an operation or activity not described in the approved NOI and technical report.	
Technical Report	Submit a Technical Report prior to any new construction of any working surfaces, detention ponds, berms, ditches, or other water quality protection containment structure.	
Final Post-Construction Report	Submit a <i>Final Post-Construction Report</i> , including as-built plans and specifications, within 30 days of completing construction activities, to document that structures were constructed in accordance with the Technical Report.	
Monitoring Report	Submit an Annual Monitoring and Maintenance Report no later than April 1st of each year.	
Notification of Violations Violation Notification Requirements	If a violation of requirements of this Order or MRP occurs, the Discharger must notify the appropriate Regional Water Board staff by telephone or electronic mail email , 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 to complete the corrective action. The notification must also include steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. Depending on the severity of the violation, the Regional Water Board staff may require the discharger to submit a separate technical report regarding the violation within 10 working days of the initial notification.	
Enrollment		
New Operations	Must file a complete Notice of Intent, filing fee, and technical report not less than 90 days prior to commencement of composting operations. The Regional Water Board will issue a Notice of Applicability that, at a minimum, confirms the Discharger's Tier, timeline for compliance, monitoring requirements and methods.	
Existing Operations	Must file a complete Notice of Intent, filing fee, and technical report within one year of adoption of the General Order. The technical report shall include a schedule for full compliance and must be as short as practicable but may not exceed 6 years from the date of the NOI.	
Fees		
Annual Fees	The filing fee accompanying the NOI is the first year's annual fee. Annual fees are based on the threat to water quality (TTWQ) and complexity (CPLX) of the discharge. (Cal. Code Regs., tit. 23, § 2200.) The ratings are available at: http://www.waterboards.ca.gov/fees/docs/fy1415-wdr-fees.pdf http://www.waterboards.ca.gov/resources/fees/docs/fy1415-fee-schedule.pdf	