

California Code of Regulations
Title 14- Natural Resources
Division 8, CIWMB

Article 1. General

§17850. Authority and Scope

- (a) This chapter is intended for the purpose of implementing the California Integrated Waste Management Act of 1989

§17852. Definitions

- (1) Active Compost: compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost generating temperatures of at least 50 C during decomposition; or is releasing CO₂ at a rate of at least 15mg per gram of compost per day, or the equivalent of oxygen uptake
- (2) (3) Aerated Static Pile: composting process that uses an air distribution system to either blow or draw air through the pile. Little or no pile agitation or turning is performed
- (3) (5) Agricultural Material: material of plant or animal origin which result from the production and processing of farm, ranch, agricultura, horticultural, aquacultural, silvicultural, floricultutral, vermiculturlal or viticultural products, including manures...
- (4) (9) Biosolids: solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Biosolids includes, but not limited to, treated domestic septage and scum or solids removed in primary, secondary, or advanced wastewater treatment processes.
- (5) (15) Disposal:
- i. (c) does NOT include land application of compostable organic material. "Land Application" means the application of compostable material in accordance with California Department of Food and Agriculture (CDFA)
- (6) (21) Green Material: does NOT include biosolids
- (7) (32) Physical Contamination or Contaminants: refers to human-made inert products ie., glass, metal and plastic

§17852.0 Approval of Alternatives

- (b) Some of the standards contained in this Chapter allow the Enforcing Agency (EA) to approve an alternative method of compliance with the standard.

Article 2. Regulatory Tiers for Composting Operations and Facilities

§17855. Excluded Activities

- (a) The activities listed in this section do not constitute compostable material handling operations or facilities for the purpose of this Chapter and are not required to meet the requirements set forth herein. Nothing in this section precludes the EA or the board from inspection an excluded activity to verify that the activity is being conducted in a manner that qualifies as an excluded activity or from taking any appropriate enforcement action.
- (9) Beneficial use of compostable materials is an excluded activity. Beneficial use includes, but is not limited to slope stabilization, weed suppression, alternative

daily cover, and similar uses, as determined by the EA; land application in accordance as authorized by Food and Agricultural Code Section 14501 et seq.; and reclamation projects in accordance with the requirements of the Office of Mine Reclamation of the Department of Conservation as authorized by Public Resources Code section 2770 et seq.

§17855.2 Prohibitions

§17855.3 Permit Name

§17855.4 Pre-existing Permits and Notifications

§17859.1. Biosolids Composting at POTWs

§17862. Research Composting Operations

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Article 5. Composting Operation and Facility Siting and Design Standards

§17865 Siting on Landfills

- (a) N/A Compostable materials on solid waste landfills
- (b) N/A solid waste landfill shall locate operations on foundation substrate that is stabilized, (compacted) to prevent differential settlement, ponding, soil liquefaction or failure of pads or structural foundations

§17866. General Design Requirements

- (a) Compostable materials handling operations and facilities must be constructed as to comply with operational requirements in Article 6 of this Chapter
- (b) The design of a compostable materials facility shall utilize advice from engineering architecture, landscape design, traffic engineering, air quality control and structural design
 - (1) The engineering design of a compostable materials handling facility shall be compliant with the State of California requirements for the design of these kind of facilities. The design requiring a Compostable Materials Handling Facility Permit shall accompany the Report of Composting Site Information, pursuant to section 17863 of this chapter.
 - (2) The engineering design shall be based on appropriate data regarding the service area, material received, climatological factors, physical settings, adjacent land use, vehicle type and quantity anticipated to enter facility, drainage control, hours of operation etc.

Article 6. Composting Operating Standards

§17867. General Operating Standards

- (a) All compostable materials handling operations and facilities shall meet the following requirements
 - (1) All handling activities are prohibited from composting any material specified in section 17855.2 of this chapter
 - (2) All handling activities shall be conducted in a manner that minimizes vectors, odor impacts, litter hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, transportation of dust, particulates and pathogenic organisms

- (3) Random load checks of feedstocks, additives, and amendments for contaminants shall be conducted
- (4) Contamination of materials that have undergone pathogen reduction, pursuant to section 17868.3 of this Chapter, with feedstocks, compost, or wastes that have NOT undergone pathogen reduction shall be prevented
- (5) Unauthorized human or animal access shall be prevented
- (6) Traffic flow in and out of operation shall be controlled safely
- (7) N/A operations open to the public must have clear signage
- (8) Operator shall provide fire prevention, protection and control measures, including, but not limited to, temperature monitoring of piles, adequate water supply for fire suppression, isolation of potential ignition sources from combustible materials. Fire lanes shall be provided.
- (9) Operator shall provide telephone or radio communication for emergency purposes
- (10) Physical contaminants from feedstocks will be removed from the site within 7 days
- (11) Enclosed operation sand facilities shall provide ventilation to prevent adverse health effects from decomposition gases
- (12) Operator shall ensure leachate is controlled to prevent contact with the public

Article 7. Environmental Health Standards

§17868.1 Sampling Requirements

- (a) Operators shall verify that compost meets the maximum metal concentration limits specified in section 17868.2, and pathogen reduction requirements in section 17868.3
 - (1) An operator who composts green material, food material, or mixed solid waste shall take and analyze one composite sample for every 5,000 cubic-yards of compost produced
 - (2) An operator who composts biosolids shall meet the sampling schedule described below.

**Table 1
Frequencies of Compost Sampling for Biosolids Composting Facilities**

Amount of Biosolids Compost Feedstock (metric tons per 365 day period)	Frequency
Greater than zero but annually fewer than 290	annually
Equal to or greater than 290 but fewer than 1,500	quarterly
Equal to or greater than 1,500 but fewer than 15,000	bimonthly
Equal to or greater than 15,000	monthly

- (3) Composite sample analysis for maximum acceptable metal concentrations shall be conducted at a laboratory certified by the CA Department of Health Services, pursuant to the Health and Safety Code
- (b) A composite sample shall be representative and random, and may be obtained by taking 12 mixed samples as described below
 - (1) The 12 samples shall be of equal volume
 - (2) The 12 samples shall be extracted from within the compost pile as follows
 - a. 4 samples from one-half the width of the pile, each at different cross sections
 - b. 4 samples from one-fourth the width of the pile, each at different cross-sections; and
 - c. 4 samples from one-eighth of the width of the pile, each at different cross-sections

§17868.2 Maximum Metal Concentrations

**Table 2
Maximum Acceptable Metal Concentrations**

Constituent	Concentration (mg/kg) on dry weight basis
Arsenic (As)	41
Cadmium (Cd)	39
Chromium (Cr)	1200
Copper (Cu)	1500
Lead (Pb)	300
Mercury (Hg)	17
Nickel (Ni)	420
Selenium (Se)	36
Zinc (Zn)	2800

§ 17868.3 Pathogen Reduction

- (a) Compost products that exceed the pathogen amounts in subdivision (b) of this section shall be designated for disposal, additional processing or other use as determined by state or federal agencies having appropriate jurisdiction
- (b) Operators that produce compost shall ensure that:
 - (1) The density of fecal coliform in compost that is or has at one time been active compost, shall be less than 1,000 Most Probable Number per gram of total solids (dry) and the density of Salmonella sp. Bacteria in compost shall be less than 3 Most Probable Number per 4 grams of total solids (dry)
 - (2) At enclosed or winin-vessel composting process operations and facilities, active compost shall be maintained at a temperature of 55 C or higher for a pathogen reduction period of 3 days
 - A. Due to variations among enclosed and within-vessel composting system designs, including tunnels, the operator shall submit a system-specific temperature monitoring plan with the permit

application to meet the requirements of subdivision (2)(b) of this section

- (4) If the operation or facility uses an aerated static pile composting process, all active compost shall be covered with 6-12 inches of insulating material, and the active compost shall be maintained at a temperature of 55 C or higher for a pathogen reduction period of 3 days

(c) Alternative methods of compliance to meet the requirements of Subdivision (b) of this section may be approved by the EA if the EA determines that the alternative method will provide equivalent pathogen reduction

(d) Compost operations and facilities shall be monitored to ensure the standards are met:

- (1)** Each day during pathogen reduction period, at least one temperature reading shall be taken per every 150 feet of windrow, or fraction thereof, or for every 200 cubic-yards of active compost, or fraction thereof
- (2)** Temperature measurements for pathogen reduction shall be measured as follows
- A.** Windrow composting regs
 - B.** Aerated static pile composting processes shall be monitored 12 to 18 inches from the point where the insulation cover meets the active compost

§17868.5 Green Material Processing Requirements

Article 8. Composting Operation and Facility Records

§178869. General Record Keeping Requirements

Article 9. Composting Facility Site Restoration

§17870 Site Restoration

Re: operations/facilities