Chapter 3.1 Composting Operations Regulatory Requirements

Article 1. General

Section 17850. Authority and Scope.

(a) This Chapter is adopted pursuant to and for the purpose of implementing the California Integrated Waste Management Act of 1989 (Act) commencing with Section 40000 of the Public Resources Code, as amended. These regulations should be read together with the Act.

(b) This Chapter implements those provisions of the Act relating to composting. Nothing in this Chapter is intended to limit the power of any federal, state, or local agency to enforce any provision of law that it is authorized or required to enforce or administer.

(c) Biological decomposition of organic material can be both a naturally occurring or artificially controlled process. Nothing in this Chapter is intended to establish standards or other regulatory requirements for market products. This Chapter establishes standards and regulatory requirements for intentional and inadvertent composting resulting from the storage or handling of ~~organic materials~~ feedstock, compost, or chipped and ground materials. ~~An activity that produces material that will be sold or given away based on biological decomposition that has occurred to the material shall not be considered inadvertent composting.~~

(d) Nothing in these standards shall be construed as relieving any owner, operator, or designee from the obligation of obtaining all required permits, licenses, or other clearances and complying with all orders, laws, regulations, or reports, or other requirements of other regulatory or enforcement agencies, including but not limited to, local health entities, regional water quality control boards, air quality management districts or air pollution control districts, local land use authorities, and fire authorities.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17852. Definitions.

For the purposes of this Chapter:

(a) "Active Compost" means compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; and is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

(b) "Additives" means material mixed with feedstock or active compost in order to adjust the moisture level, carbon to nitrogen ratio, or porosity to create a favorable condition. Additives

include, but are not limited to, fertilizers and urea. Additives do not include septage, sewage, or compost feedstock.

(c) "Aerated Static Pile" means a 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.

(d) "Aerobic Decomposition" means the biological decomposition of organic substances in the presence of oxygen.

(e) "Agricultural Commodities" or "Agricultural Materials" means the products of farms and ranches and items processed from these products, as defined in Division 21, Part 2, Chapter 1, Section 58619 of the Food and Agricultural Code, including any agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural product.

(f) "Agricultural Material Composting Operation" means an operation that processes green and animal materials derived from agricultural commodities, additives, and/or amendments into compost. "Agricultural Material Composting Operation" does not include activities excluded from regulation in Section 17855. "Agricultural Material Composting Operations" include operations that use clean green material, as defined in Subdivision (k) of this Section, if the clean green material portion does not exceed the agricultural commodities portion of active compost on-site annually.

(g) "Amendments" means materials added to stabilized or cured compost to provide attributes for certain compost products, such as product bulk, product nutrient value, product pH, and soils blend. Amendments do not include septage, sewage, or compost feedstock.

(h) "Anaerobic Decomposition" means the biological decomposition of organic substances in the absence of oxygen.

(i) "Animal Material" means any material derived from animal products that are for consumption by humans or animals. The sources of these products include, but are not limited to, agriculture, food manufacturing and processing industries, restaurants, hospitals, and food distributors. "Animal Material" is either separated at the point of generation, or separated at a centralized facility that employs methods to minimize contamination. The composting of mammalian flesh, organs, unprocessed hide, blood, bone and marrow is prohibited, except when from the food service industry. Animal material does not include manure.

(j) "Animal Material Composting Facility" is a facility that processes animal material and additives and amendments into compost. A facility that composts green material in addition to animal material shall be considered an animal material composting facility. "Animal Material Composting Facility" does not include activities excluded from regulation in Section 17855, and operations that constitute "Agricultural Material Composting Operations."

~~(l)~~ (k) "Chipping and Grinding" means an activity that mechanically reduces the size of organic matter. ~~Chipping and grinding shall not include activities that produce material that~~

~~will be sold or given away based on biological decomposition that has occurred to the material.~~

~~(k)~~ (l) "Clean Green Material" or "Clean Green" means green material that is processed by a permitted solid waste facility in order to reduce contamination to the greatest extent possible as set forth in Section 17868.4. Tree and landscape trimming materials that have never been combined with other waste materials are considered "Clean Green Materials."

(m) "Composting Facility" means a facility that is operated for the purpose of producing compost, as defined in Division 30, Part 1, Chapter 2, Section 40116 of the Public Resources Code. A "Composting Facility" includes:

(1) Green material composting facilities that have greater than 1,000 cubic yards of feedstock and active compost on-site at any one time;

(2) Animal material composting facilities;

(3) Sewage sludge composting facilities; and

(4) Mixed solid waste composting facilities.

(n) "Composting Operation" means an operation that is operated for the purpose of producing compost, as defined in Division 30, Part 1, Chapter 2, Section 40116 of the Public Resources Code. A composting operation is a solid waste handling operation that does not constitute a composting facility that would require a solid waste facilities permit. "Composting Operation" includes:

(1) Research operations;

(2) Agricultural material composting operations; and

(3) Green material operations that have up to 1,000 cubic yards of feedstock and active compost on-site at any one time.

(o) "Composting Process" means one or a combination of the following processes used to produce a compost product:

(1) windrow composting;

(2) aerated or non-aerated static pile composting;

(3) enclosed or within-vessel composting; and

(4) other processes approved by the enforcement agency, that meet the requirements set forth in this Chapter.

(p) "Curing" means the final stage of the composting process that occurs after compost has undergone pathogen reduction, as described in Section 17868.3, and after most of the readily metabolized material has been decomposed and stabilized.

(q) "Domestic Sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

(r) "Dry Weight Basis" means weight calculated on the basis of having been dried until reaching a constant mass, that results in essentially a 100 percent solids content.

(s) "Enclosed Composting Process" means a composting process where the area that is used for the processing, composting, stabilizing, and curing of organic materials, is covered on all exposed sides and rests on a stable surface.

(t) "Feedstock" means any decomposable organic material used in the production of compost <u>or chipped and ground material</u> including, but not limited to, clean green material, green material, animal material, sewage sludge, and mixed solid waste.

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Feedstocks shall not be considered as either additives or amendments.

(u) "Green Material" means any plant material that is either separated at the point of generation, or separated at a centralized facility that employs methods to minimize contamination. Green material includes, but is not limited to, yard trimmings, plant wastes from the food processing industry, manure, untreated wood wastes, paper products, and natural fiber products. Green material does not include treated wood waste, mixed demolition or mixed construction debris.

(v) "Green Material Composting Operation" or "Facility" is an operation or facility that processes only green material and additives and amendments into compost. "Green Material Composting Operation or Facility" does not include an "Agricultural Material Composting Operation."

(w) "Insulating Material" means material used for the purpose of minimizing the loss of heat from a compost pile undergoing the "Process to Further Reduce Pathogens" (PFRP), as described in Section 17868.3. Insulating material includes, but is not limited to, soil and stabilized compost.

(x) "Manure" means accumulated animal excrement. This definition shall include feces and urine, and any bedding material, spilled feed, or soil that is mixed with feces or urine. If intentionally composted, manure is a subset of green material and is regulated as green material, except as provided in Sections 17855 and 17856. Manure that is inadvertently composted, such as may occur at feedlots, dairies, and poultry farms, is not subject to regulation pursuant to this Chapter.

<u>(x2) "Market Product" means feedstock, compost or chipped and ground materials which have been sold, bagged for sale, or beneficially used. Beneficial use includes, but is not limited to, land application at an agronomic rate, land reclamation, slope stabilization, and weed suppression, as determined by the enforcement agency. "Product" does not include organic materials undergoing biological decomposition at a composting operation or facility.</u>

(y) "Mixed Solid Waste" means any material that is part of the municipal solid waste stream, and is mixed with or contains non-organics, processed industrial materials, or plastics.

(z) "Mixed Solid Waste Composting Facility" is a facility that processes mixed solid waste into compost. A facility that composts sewage sludge, animal material, or green material, in addition to mixed solid waste, shall be considered a mixed solid waste composting facility.

(aa) "Operations Area" means the following areas within the boundary of a composting operation or facility:

(1) equipment cleaning, maintenance, and storage areas;

(2) feedstock, active, ~~and~~ stabilizing <u>and stabilized</u> compost processing or stockpiling areas; and

(3) process water and stormwater drainage control systems.

(bb) "Operator" means the owner, or other person who through a lease, franchise agreement or other arrangement with the owner, becomes legally responsible for the following:

(1) complying with regulatory requirements set forth in this Chapter;

(2) complying with all applicable federal, state and local requirements;

(3) the design, construction, and physical operation of the site; and

(4) site restoration.

(cc) "Owner" means the person or persons who own, in whole or in part, a composting operation or facility, or the land on which a composting process is located.

(dd) "Pathogenic Organism" means disease-causing organisms.

(ee) "Process Water" means liquid that is generated during or used in the production of compost.

(ff) "Research Composting Operation" means a composting operation, that is not-for-profit, and is operated for the purpose of gathering research information on composting.

(gg) "Sewage Sludge" means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage and scum or solids removed in primary, secondary, or advanced wastewater treatment processes. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during the preliminary treatment of domestic sewage in a treatment works.

(hh) "Sewage Sludge Composting Facility" is a facility that processes only sewage sludge and additives and amendments into compost product. A facility that composts animal material, or green material, in addition to sewage sludge shall be considered a sewage sludge composting facility.

(ii) "Stabilized Compost" means any organic material that has undergone the Process to Further Reduce Pathogens (PFRP), as described in Section 17868.3, and has reached a stage of reduced biological activity as indicated by reduced temperature and rate of respiration below that of active compost.

(jj) "Static Pile" means a composting process that is similar to the aerated static pile except that the air source may or may not be controlled.

(kk) "Vector" includes any insect or other arthropod, rodent, or other animal capable of transmitting the causative agents of human disease.

(ll) "Vermicomposting" means an activity that produces ~~compost~~ worm castings through worm activity. <u>The enforcement agency may determine whether an activity is or is not vermicomposting. The storage of feedstock to be used in the production of growth medium for worms, feedstock which is being processed to produce growth medium, and the storage of growth medium is not considered vermicomposting.</u>

(mm) "Windrow Composting Process" means the process in which compostable material is placed in elongated piles. The piles or "windrows" are aerated and/or mechanically turned on a periodic basis.

(nn) "Within-vessel Composting Process" means a process in which compostable material is enclosed in a drum, silo, bin, tunnel, reactor, or other container for the purpose of producing compost.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Article 2. Regulatory Tiers for Composting Operations and Facilities

Section 17855. Excluded Activities.

(a) The activities listed in this Section do not constitute composting operations or facilities for the purposes of this Chapter and are not required to meet the requirements set forth herein. Nothing in this Section precludes the enforcement agency or the board from inspecting 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.

(1) Residences, parks, community gardens, homeowner associations, universities, schools, hospitals, golf courses, industrial parks, and other similar entities are excluded activities if less than 500 cubic-yards of any combination of green material feedstock, animal material feedstock, and active compost is on-site at any one time.

(2) An activity is excluded if it composts green material or animal material, derived from agricultural commodities, and returns a similar amount of the compost produced to that same agricultural source, or an agricultural source owned or leased by the owner, parent, or subsidiary of the composting activity. No more than an incidental amount of up to 2,500 cubic yards of compost product may be given away or sold annually.

(3) Chipping and grinding is an excluded activity <u>if 1,000 cubic-yards or less of feedstock and chipped and ground material is on-site at any one time or the material is stored for 7 days or less</u>.

(4) Biomass conversion, as defined in Section 40106 of the Public Resources Code, is an excluded activity.

(5) Vermicomposting is an excluded activity. <u>The storage of feedstock to be used in the production of growth medium for worms, feedstock which is being processed to produce growth medium, and the storage of growth medium is not an excluded activity.</u>

<u>(6) Storage is an excluded activity if 1,000 cubic yards or less of feedstock, compost, or chipped and ground material is on-site at any one time or the material is stored for 7 days or less.</u>

<u>(7) Storage or handling of market product, as defined in Section 17852(x2), is an excluded activity.</u>

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17856. Agricultural Material Composting Operations.

(a) All agricultural material composting operations shall comply with the Enforcement Agency Notification requirements set forth in Title 14, Division 7, Chapter 5.0, Article 3.0 (commencing with Section 18100) of the California Code of Regulations, except as otherwise provided by this Chapter.

(b) Compost produced by an agricultural material composting operation which uses only agricultural commodities may be sold or given away without restriction.

(1) Agricultural material composting operations that compost only agricultural commodities shall be inspected by the enforcement agency at least once every three (3) months, during periods of active composting.

(c) Compost produced by an agricultural material composting operation which uses agricultural commodities and clean green material, as specified in Section 17852 (k), shall not sell or give-away more than 1,000 cubic-yards of compost ~~product~~ per year.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17857. Green Material Composting Operations and Facilities.

(a) A green material composting operation that has up to 1,000 cubic yards of feedstock and active compost on-site at any one time shall comply with the Enforcement Agency Notification requirements set forth in Title 14, Division 7, Chapter 5.0, Article 3.0 (commencing with Section 18100) of the California Code of Regulations.

(b) A green material composting facility that has more than 1,000 cubic yards, but no more than 10,000 cubic yards of feedstock and active compost on-site at any one time shall obtain a Registration Permit pursuant to the requirements of Title 14, Division 7, Chapter 5.0, Article 3.0 of the California Code of Regulations, prior to commencing operations.

(c) A green material composting facility that has more than 10,000 cubic yards of feedstock and active compost on-site at any one time shall obtain a Standardized Composting Permit~~, as found in Appendix I~~ (see Appendix A, form CIWMB 5000, which is incorporated herein by reference), pursuant to the requirements of Title 14, Division 7, Chapter 5.0, Article 3.0 of the California Code of Regulations, prior to commencing operations.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17858. Animal Material Composting Facilities.

(a) An animal material composting facility that has up to 10,000 cubic yards of feedstock and active compost on-site at any one time shall obtain a Registration Permit pursuant to the requirements of Title 14, Division 7, Chapter 5.0, Article 3.0 (commencing with Section 18100)of the California Code of Regulations, prior to commencing operations.

(b) An animal material composting facility that has more than 10,000 cubic yards of feedstock and active compost on-site at any one time shall obtain a Standardized Composting Permit~~, as found in Appendix I~~ (see Appendix A, form CIWMB 5000, which is incorporated herein by reference), pursuant to the requirements of Title 14, Division 7, Chapter 5.0, Article 3.0 of the California Code of Regulations, prior to commencing operations.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17859. Sewage Sludge Composting Facilities.

(a) A sewage sludge composting facility that has up to 10,000 cubic yards of feedstock, which meets Class B requirements, pursuant to Title 40, Chapter I, Subchapter O, Part 503.32 of the Code of Federal Regulations, and active compost on-site at any one time shall obtain a Registration Permit pursuant to the requirements of Title 14, Division 7, Chapter 5.0, Article 3.0 (commencing with Section 18100) of the California Code of Regulations, prior to commencing operations.

(1) The operator shall obtain records demonstrating that the sewage sludge feedstock is in compliance with Class B requirements described above.

(b) A sewage sludge composting facility that composts sewage sludge feedstock which does not meet Class B requirements, or has more than 10,000 cubic yards of feedstock and active compost on-site at any one time shall obtain a Standardized Composting Permit~~, as found in Appendix I~~ (see Appendix A, form CIWMB 5000, which is incorporated herein by reference), pursuant to the requirements of Division 7, Chapter 5.0, Article 3.0 of the California Code of Regulations, prior to commencing operations.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code. Title 40, Chapter I, Subchapter O, Part 503, of the Code of Federal Regulations.

Section 17862.1. Chipping and Grinding.

(a) A chipping and grinding activity that has more than 1,000 cubic yards of feedstock and chipped and ground material on-site at any one time shall comply with Sections 17867(a)(2), 17867(b)(1), and 17869(d).

(b) A chipping and grinding activity shall not be subject to the requirements of Subdivision (a) of this Section if:

(1) The operator maintains records which document that material is not stored on-site for more than 7 days; or,

(2) Animal material or agricultural commodities are located on the agricultural property where the material is generated; or,

(3) The activity is located at an operation or facility that has a tiered or full permit, and the activity is identified and described in the Report of Facility Information; or,

(4) The activity is located at the site of biomass conversion and is for use in biomass conversion.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17862.2. Storage.

(a) The storage of more than 1,000 cubic yards of feedstock, compost, or chipped and ground material on-site, excluding market product, shall comply with Sections 17867(a)(2), 17867(b)(1), and 17869(d), unless explicitly excluded pursuant to Section 17855 of this Chapter.

(b) A storage activity shall not be subject to the requirements of Subdivision (a) of this Section if:

(1) The operator maintains records which document that material is not stored on-site for more than 7 days; or,

(2) Animal material or agricultural commodities, are located on the agricultural property where the material is generated; or,

(3) The activity is located at an operation or facility that has a tiered or full permit, and the activity is identified and described in the Report of Facility Information; or,

(4) The activity is located at the site of biomass conversion and is for use in biomass conversion; or

(5) The activity is solely for the storage of sewage sludge at a Publicly Operated Treatment Works (POTW).

(c) Composting to solely produce growth medium for worms is not subject to the permitting requirements of this Chapter.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Article 3. Report of Facility Information

Section 17863. Report of Composting Site Information.

Each operator of a composting facility that is required to obtain a Standardized or Full Solid Waste Facilities Permit, as specified in Article 2 of this Chapter, shall, at the time of application, file a Report of Composting Site Information with the enforcement agency. If the operator intends to alter the permitted feedstock, these changes must be reported to the enforcement agency for maintenance of permit status. Such changes may become the basis for revisions to the permit or for revocation of the permit. A Report of Composting Site Information shall contain the following:

(a) A description of the composting processes to be used, including estimated quantities of feedstocks, additives, and amendments.

(b) A descriptive statement of the operations conducted at the facility.

(c) A schematic drawing of the facility showing layout and general dimensions of all processes utilized in the production of compost including, but not limited to, unloading, storage, processing, parking, and loading areas.

(d) A description of the proposed methods used to control litter, odors, dust, rodents, and insects.

(e) A description of the proposed emergency provisions for equipment breakdown or power failure.

(f) A description of the <u>storage capacity and</u> anticipated maximum and average length of time compost will be stored at the facility.

(g) A description of compost equipment used at the facility including type, capacity, and number of units.

(h) Anticipated annual operation capacity for the facility in cubic-yards.

(i) A description of provisions to handle unusual peak loadings.

(j) A description of the proposed method for storage and final disposal of nonrecoverable or nonmarketable residues.

(k) A description of the water supplies for process water required.

(l) Identification of person(s) responsible for oversight of facility operations.

(m) A description of the proposed site restoration activities, in accordance with Section 17870 of this Chapter.

Authority cited: Sections 40502, 43020 and 43021 of the Public Resources Code
Reference: Sections 43020 and 43021 of the Public Resources Code.

Article 6. Composting Operating Standards

Section 17867. General Operating Standards.

(a) All composting operations and facilities shall meet the following requirements:

(1) The composting of mammalian flesh, organs, unprocessed hide, blood, bone, and marrow is prohibited, except when from the residential sector or food service industry. Carcasses of animals with any contagious disease shall not be composted, unless approved in writing by the California Department of Food and Agriculture, Division of Animal Industry.

(2) All composting 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, and transportation of dust, particulates, and pathogenic organisms.

(3) Random load checks of feedstocks, additives, and amendments for contaminants shall be conducted.

(4) Contamination of compost ~~product~~ that has undergone pathogen reduction, pursuant to Section 17868.3 of this Chapter, with feedstocks, compost, or wastes that have not undergone pathogen reduction, pursuant to Section 17868.3 of this Chapter, or additives shall be prevented.

(5) Unauthorized human or animal access to the facility shall be prevented.

(6) Traffic flow into, on, and out of the composting operation or facility shall be controlled in a safe manner.

(7) All composting operations and facilities, that are open for public business, shall post legible signs at all public entrances. These signs shall include the following information:

(A) name of the operation or facility,

(B) name of the operator,

(C) facility hours of operation,

(D) materials that will and will not be accepted, if applicable,

(E) schedule of charges, if applicable, and

(F) phone number where operator or designee can be reached in case of an emergency.

(b) All composting facilities shall meet the following requirements:

(1) The operator shall provide fire prevention, protection and control measures, including, but not limited to, temperature monitoring of windrows and piles, adequate water supply for fire suppression, and the isolation of potential ignition sources from combustible materials. A firelane of a minimum of 12 feet in width, shall be provided to allow access to all operation areas.

(2) The operator shall provide telephone or radio communication capability for emergency purposes.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Article 7. Environmental Health Standards

Section 17868.1. Sampling Requirements.

All composting operations that sell or give away greater than 2,500 cubic yards of compost annually, and all facilities shall meet the following requirements:

(a) Operators shall verify that compost meets the maximum acceptable metal concentration limits specified in Section 17868.2, and pathogen reduction requirements specified in Section 17868.3~~, are met when the compost product leaves the operation or facility boundaries~~. Verification of pathogen reduction requirements shall occur as close as possible to the point at which compost is sold, bagged for sale, or beneficially used. This verification shall be performed by taking and analyzing at least one composite sample of compost ~~product~~, following the requirements of this Section as follows:

(1) An operator who composts green material, animal 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 sewage sludge shall meet the sampling schedule described in Table 1 below.

Table 1 - Frequencies of Compost ~~Product~~ Sampling for Sewage Sludge Composting Facilities

Amount of sewage sludge compost feedstock (metric tons per 365 day period)	Frequency
Greater than zero but 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

(A) The amount of sewage sludge compost feedstock shall be calculated in dry weight metric tons.

(3) Composite sample analysis for maximum acceptable metal concentrations, specified in Section 17868.2, shall be conducted at a laboratory certified by the California Department of Health Services, pursuant to the Health and Safety Code.

(b) A composite sample shall consist of twelve (12) mixed samples.

(1) The twelve samples shall be of equal volume.

(2) The twelve samples shall be extracted from within the compost pile as follows:

(A) Four samples from one-half the horizontal width of the pile, each at a different cross-section;

(B) Four samples from one-fourth the horizontal width of the pile, each at a different cross-section; and,

(C) Four samples from one-eighth the horizontal width of the pile, each at a different cross-section.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17868.2. Maximum Metal Concentrations.

Compost ~~product~~ that contains any metal in amounts that exceed the maximum acceptable metal concentrations shown in Table 2 shall be designated for disposal, additional processing, or other use as approved by state or federal agencies having appropriate jurisdiction.

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

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Section 17868.3. Pathogen Reduction.

(a) Compost ~~product~~ that contains pathogens in amounts that exceed the maximum acceptable pathogen concentrations described in Subdivision (b) of this Section shall be designated for disposal, additional processing, or other use as approved by state or federal agencies having appropriate jurisdiction.

(b) Operators that produce compost shall ensure that:

(1) The density of fecal coliform in ~~the~~ compost ~~product~~, 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 weight basis), or the density of *Salmonella* sp. bacteria in compost shall be less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis).

(2) At enclosed or within-vessel compost operations and facilities, active compost shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) 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 (b)(2) of this Section.

(3) If the operation or facility uses a windrow composting process, active compost shall be maintained under aerobic conditions at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of 15 days or longer. During the period when the compost is maintained at 55 degrees Celsius or higher, there shall be a minimum of five (5) turnings of the windrow.

(4) If the operation or facility uses an aerated static pile composting process, all active compost shall be covered with 6 to 12 inches of insulating material, and the active compost shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) 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 enforcement agency if the enforcement agency determines that the alternative method will provide equivalent pathogen reduction.

(d) Compost operations and facilities shall be monitored as follows to ensure that the standards in Subdivision (b) of this Section are met:

(1) Each day during the 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 processes and agitated bays shall be monitored twelve (12) to twenty-four (24) inches below the pile surface;

(B) Aerated static pile composting processes shall be monitored twelve (12) to eighteen (18) inches from the point where the insulation cover meets the active compost.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.

Article 8. Composting Operation and Facility Records

Section 17869. General Record Keeping Requirements.

All composting operations and facilities shall meet the following requirements:

(a) All records required by this Chapter shall be kept in one location and accessible for five (5) years and shall be available for inspection by authorized representatives of the board, enforcement agency, local health entity, and other duly authorized regulatory and enforcement agencies during normal working hours.

(b) The operator shall record any special occurrences encountered during operation and methods used to resolve problems arising from these events, including details of all incidents that required implementing emergency procedures.

(c) The operator shall record any public complaints received by the operator, including:

(1) the nature of the complaint,

(2) the date the complaint was received,

(3) if available, the name, address, and telephone number of the person or persons making the complaint, and

(4) any actions taken to respond to the complaint.

(d) The operator shall record the quantity and type of feedstock received and quantity of compost <u>and chipped and ground material</u> produced.

(e) The operator shall record the number of load checks performed and loads rejected.

(f) The operator shall record all test results generated by compliance with Article 7 of this Chapter, including but not limited to, metal concentrations, fecal coliform and *Salmonella* sp. densities, temperature measurements, and dates of windrow turnings.

(1) The operator shall retain records detailing pathogen reduction methods.

NOTE: Authority cited: Sections 40502, 43020, and 43021 of the Public Resources Code.
Reference: Sections 43020 and 43021 of the Public Resources Code.