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14 July 2015

Mr. Ken Decio, Senior Environmental Scientist
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RE: Comment Period to Proposed Changes to Title 14, - Article 7

Dear Mr. Decio;

We are writing you in response to the State of California's invitation to provide comments on proposed revisions to Title 14, - Article 7. As the developer of a revolutionary alternative solution to the problem of organic waste, we are deeply interested in California's leadership in regulating this important waste stream. As you may recall from our previous April 2013 comments, we have been closely tracking this issue.

WISErg strongly supports California's efforts to modernize the state's organic waste regulations, especially the decision to completely ban organics from the solid waste stream by April 1, 2016. As part of this update, we urge California to future-proof its regulatory structure by embracing promising new technologies that are consistent with California State goals. From the Cal Recycle website this is: to increase the diversion of organic materials from landfill disposal for beneficial uses such as compost and energy production.

An example of such a new technology is the anabolic food waste recovery system pioneered by WISErg called oxidative conversion. We believe there is no such thing as waste if resources are judiciously managed; we have developed a food scrap recovery process that departs completely from landfilling, composting, and anaerobic digestion. Rather than perform volume reduction, oxidative conversion captures and retains the full nutritional value of vegetables,

meat, fruit and other discarded food. This is accomplished by an aerobic biochemical process that takes place in a fully contained environment that generates no unpleasant odors, attracts no pests, and poses no risk of environmental contamination. Even better, the end product is a high quality liquid fertilizer certified as organic by the Organic Materials Research Institute (OMRI), California Department of Food and Agriculture (CDFA), and the Washington State Department of Agriculture (WSDA).

With so little in common between the oxidative conversion and organic waste disposal systems like composting and anaerobic digestion, regulations written for organic waste disposal are a poor fit for alternative technologies like oxidative conversion that capture and retain nutrition rather than dispose of it as waste. Because such a system needs suitable regulations, we have attached a proposed complete "*de novo*" chapter 3.3 template that is closely based on and consistent with California's proposed regulations for Anaerobic Digestion Facilities in Title 14, Article 7 Chapter 3.2. The proposed additions are derived from Washington Administrative Code 173-350-225 plus language that addresses some clearly articulated concerns in Title 14 Chapters 3.1 and 3.2. Specifically, these proposed insertions address odors, pathogens, metals, and facility operations including legal authority to inspect the production facilities as desired. Incorporating this proposed language would add relevant definitions, define maximum acceptable contamination levels, and define a permit tier that would encourage innovation and additional solutions to organics management *(Section 17898.3)*.

Specifically our proposed new chapter addresses the following:

1. **Pathogens and Metals**: The oxidative conversion process includes pathogen reduction activities for organisms like E-coli and salmonella species. The mechanical homogenization and sterile packaging at the main processing facilities prevent subsequent contamination. To ensure product safety, we monitor the process for cobalt, copper, nickel, lead, zinc, arsenic, cadmium, molybdenum, selenium and mercury as well as for fecal coliform and salmonella. Independent third party testing demonstrates that WISErganic, WISErg's fertilizer product meets the California standards for these metals and pathogens. *(Section 17898.47-51)*
2. **Inspections/Reporting**: Transparency is a WISErg corporate value. As a data-driven company, we craft audience-specific reports. The data from the Harvester user interface both prompts and confirms a store's waste reduction efforts. Our production facilities are available for inspections and tours as required or requested. *(Section 17898.45)*

3. **No Unpleasant Odors:** The odors associated with landfills, anaerobic digestion and compost including methane and other associated gasses produced in anaerobic reactions are typically caused by putrefaction, methanogens and thermophiles. By contrast, oxidative conversion uses an odor-free aerobic process that releases and stabilizes commercially valuable nutritive, biochemical-enriched products; thus it can occur in facilities within and adjacent to grocery stores, restaurants, and potentially multi-family residences. *(Section 17898.21-23)*
4. **Financial Assurances and Site Restoration:** Oxidative conversion facilities occupy a fraction of footprint of landfills, composting or anaerobic digestion facilities. As this process is fully contained, no special land uses or sites are required, eliminating the financial and site restoration risks associated with siting waste processing facilities. Because this technology has no hazardous inputs or outputs, our facilities can be sited in any commercial zone. *(No section proposed.)*

We look forward to your review of the regulations and the attached technical data about our process. Should you wish to speak with Washington State regulators who have reviewed our process, we have attached a list of contacts. We are available to meet with you via phone or in person should you desire and we are always open to host tours of our Redmond, Washington facility. We are also able and willing to help with any language harmonization. We are proud of our technology and believe we are another important tool in the organics materials management tool box.

Sincerely,

Deanna Seaman

Deanna Seaman
Sustainability Manager

C: Kevin Taylor, Cal Recycle
Larry LeSueur, CEO WISErg
Victor Tryon, CSO WISErg
Jose Lugo, Co-Founder WISErg

Attachments: Process Differentiation Matrix
WISErg process description
Regulatory Contacts
Regulatory Proposal

Question	Oxidative Conversion 	Composting 	Anaerobic Digestion 
What is it?	Food removed from inventory is the input to this aerobic nutrient extractor. A management tool for grocery stores to reduce store shrinkage and waste.	Food and yard waste pre- and post-consumer. Reduce organic waste materials	Recycling manure, some food waste, putrescible, high and low solid organics in vessel. Efficiency rises when high quality substrates are added
By what process?	Aerobic biological process with filtration	Mixed aerobic and anaerobic process with multiple screens to pull contaminants	Anaerobic process, in vessel, controlled temperature, inputs need to be managed
Inputs	Pre-consumer food, dairy, meat, seafood, shellfish, floral, bakery, fruit, vegetables	Yard waste, food waste from post-consumer curbside collection, landscaping trimmings	Manure, food, putrescibles, bio-solids from waste water processes, on-farm sources
Outputs	OMRI, WSDA, CDFA certified 3-0-1 fertilizer, filtered to <25 microns	Soil bulking agent, low nitrogen, carbon sink	Liquid fertilizer, soil bulking agent, methane
Land Requirements	Less than 10,000 sq ft, at production plant electrical, water, in a light industrial zone, suitable for back of store or restaurant	Minimum 10 acres, agricultural or heavy industry zoning, storm water, waste water, air permits	30 acre campus, high pressure vessel permits for the methane, odor management, electrical, waste water
Retail site space requirements	84 square feet, back of store, clean	9x9x15 feet for one 20 yard box.	9x9x15 feet for one 20 yard box.
Waste Streams	Periodic rinse water less than 1,000 gallons per month	Leachate, air emissions including CO2, NOx, CH4, storm water, plastic contamination, organic odors	Storm water, CO2, NOx, fugitive CH4, solids with questionable market,
Speed of Process	24 hours from receiving to storage tank	4 weeks in process, 90 days to cure	10 days in vessel, solids need one week to cure. Methane harvested continuously
Chemical Process	Aerobic anabolic biological process with embedded pathogen reduction process, bakery smell, low warming gas emissions, complex biological chemicals stay complex, anabolic process, homogeneous product.	Biological degradation process, odors due to volatile fatty acid release, decomposes complex biochemical to greenhouse gases. Catabolic, oxidative process producing a heterogeneous product.	Low temperature incineration, oxidation of all chemicals to methane, three phase out put. Methane is homogeneous, solid product is heterogeneous and may include heavy metals depending on input. The liquid phase is variable.
Attracts Vectors?	Closed system, not available to rats, birds, bugs, other vectors	Rats, sea gulls, bugs	All vermin
Use of Embedded energy in Food	Minimal loss, less than 10%.	Complete loss of complex molecules, up to 50% volume reduction of incoming material.	Complete loss of complex molecules, reduction to CO2 and methane; 60-95% volume reduction.
GHG Emissions in Production	Some CO2.	CO2, NxOx, SOx, CH4 as fugitive emissions as well as odor	CO2, captured CH4, NxOx, odor

Question	Oxidative Conversion 	Composting 	Anaerobic Digestion 
Soil Factors	Peptide chains for nitrogen delivery to plants which they prefer, other complex carbohydrates, amino acids	Low nitrogen soil bulking agent, helps with weed suppression and slope stabilization	Soil bulking agent, very low nitrogen or other nutritional value
Carbon sequester Potential	Carbon credit potential – since there is no putrefaction, CO_2, CH_4, NxOx, SOx credits can be calculated	See Marin Carbon Study – on grasslands compost attracts and retains carbon. Encourages growth of range grass.	Not studied.
Water Holding Capacity	High carbon to nitrogen resulting from water holding capacity	Compost helps to minimize water loss in soil	Not studied
Strength and Weakness summary	• Retains nutrients • Positive Environmental impact • Food scraps only	• Degrades organic waste • Keeps yard waste from landfill • Has emissions and odors	• Degrades organic waste • Captures methane for electricity • Creates emissions and odors

Images from BING.com

FOOD WASTE NEED NOT BE WASTED

Cal Recycle **July 2015**

Who says It has to be *Waste*?

Until now, all traditional approaches to managing food waste—landfilling, composting, and anaerobic digestion, have generated negative environmental impacts. While meeting the goal of diverting waste from landfills, such approaches create other negative impacts such as odor, greenhouse gas emissions, runoff, pests and the waste of valuable nutritional resources.

To be environmentally restorative, we need to challenge the basic premise that if waste can be kept out of the landfill, then the problem is solved. In other words, out-of-the-box thinking is needed solve this vexing global challenge.

"To rethink waste streams of all sorts, applying technology to address challenging community problems."

- WISErg Corporation Mission Statement

Food scraps: waste or resource?

New technology: Harvester™ consists of nutrient extractor and biology tank

What if we could capture the waste and recycle it into a much-needed product using a process that creates no negative environmental impacts?

Better still, what if the environmental impacts themselves could be positive?

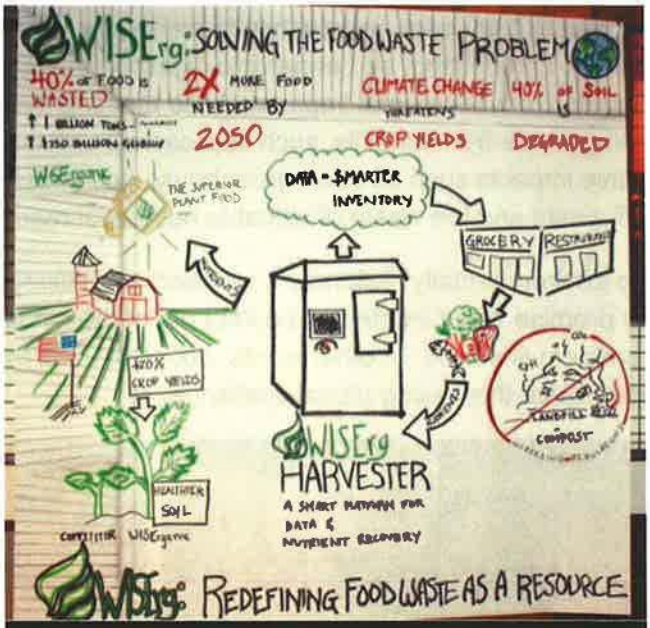
WISErg Harvester™ is an ideal way to process food waste.

- Prevents leakage, spills, odors and pests
- Complies with regulations
- Reduced greenhouse gas emissions
- Precludes waste by capturing nutrients from food for organic agriculture

The WISErg Story

After retiring from successful careers in high technology, Jose Lugo and Larry LeSueur aspired to make a positive and significant impact on the environment by addressing the problem of waste. Distraught that grocery stores throw away close to 20% of the entire food supply, Jose and Larry set their sights on helping the grocery industry reduce this senseless waste. In 2010 they founded a clean-technology company called WISErg to invent an entirely new method of solving the food waste problem based on their shared belief that there's no such thing as waste if resources are managed wisely.

Their concept was that if a grocery store had detailed data about the source, type and volume of its organic waste, then the store would reduce it. Reducing a store's food waste cuts its costs helping its bottom line and tells a better sustainability story. WISErg soon learned that grocery stores had little or no ability to measure the type and quantity of food being thrown out as waste. Even if a store could measure it, it was virtually impossible to capture the causation of the waste. It became clear that grocery stores had few resources available to reduce their waste as they lacked information regarding its cause.



WISErg's original concept illustrated on a cocktail napkin

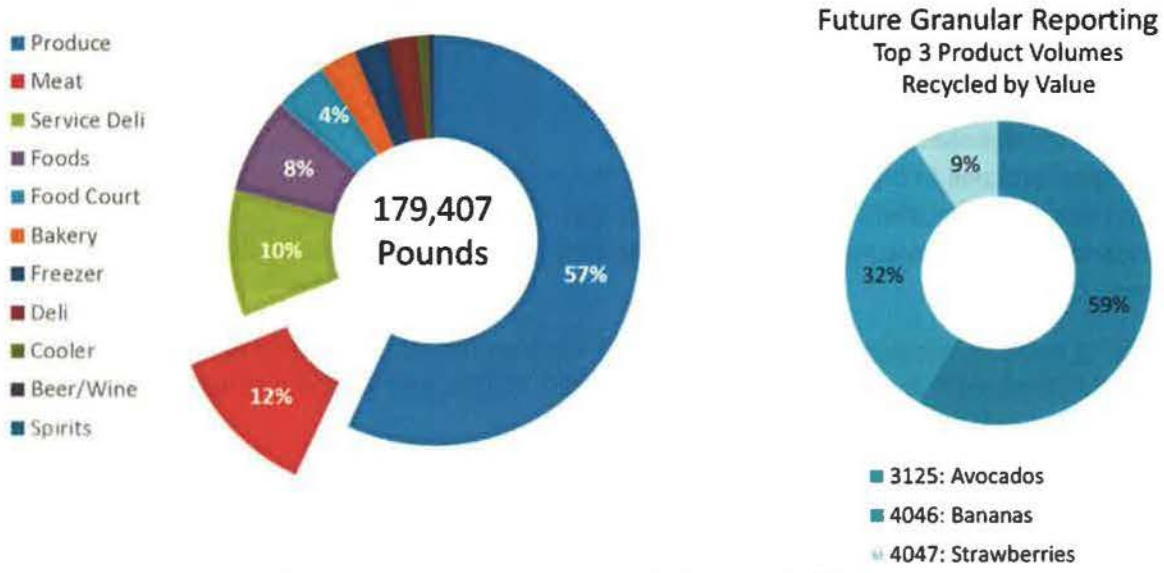
Food for thought...

- Is technology available where the success of the business is measured by dramatically reducing organic waste at the source instead of just diverting it to another place?
- Could organic waste instead be considered a source material that could be fully captured and better utilized, with no resulting emissions or waste?
- Can this "waste" material be used as a primary input for something much more environmentally valued than composted material or methane gas?
- Could the end product be used to help feed a hungry planet using water conserving, soil restoring organic agriculture?

WISErg is proving the answer to these questions is YES!

Reducing food Waste through better information

WISErg developed its first product, a machine called the "Harvester™" to collect and process food waste at grocery stores while gathering data needed to better manage this resource. Like a giant juicer, the Harvester™ liquefies food scraps. Unlike a juicer, the Harvester is smart—it's equipped with a programmable logic controller, numerous data sensors and is operated by a touch screen user interface and digitally networked for robust data collection. With the aid of a Harvester™, store managers can determine the department or cost center that generated the waste (i.e. produce, meat, deli, bakery); the cause of the waste (culling, trimming, expiration); the quantity of waste by weight and even the date and time of day food is being discarded. Food type (i.e. bones, fruit, etc.), grind times and water used for lubrication are also continually and automatically monitored. A sample high-level report provided to a grocery store can be seen below. Drill downs into any specific data area are also available to store managers.



Sample quarterly overview report delivered to a store using the WISErg Harvester™

Grocery stores are able to use these reports to find root causes of their waste along with being able to do store-to-store comparisons, capturing practices in each store and sharing them across their chain of stores. Grocery stores deploying Harvesters™ are seeing reduction of up to 25% of their organic waste by using this data for better inventory management and improved insights into their workflows.

It's Not Waste!

The second out of the box question Jose and Larry asked is: ***Does it have to be waste?*** As they developed the Harvester™ , Jose and Larry's team discovered that in processing the food waste to capture data for grocery stores, something very interesting—and potentially valuable—was coming out of the back of the Harvester. Initially, they sought to convert this material—a wet slurry of liquefied food scraps into energy in the form of biogas produced through anaerobic digestion. In the process, they subsequently learned that food waste is far from ideal as a feedstock for biogas production. Instead, they discovered it has exceptionally high nutritive value. Packed with the very vitamins, minerals, and other micronutrients of the foods from which it was derived, this broth could be used to nourish plants which they learned have similar nutritional requirements as people for whom the food was originally produced.

If the team could invent a way to safely preserve and process what has traditionally been regarded as garbage—perishable refuse needing to be sent to anaerobic digester, composter, or simply dumped—could serve as the source material for high quality, organic fertilizer. WISErg expanded its research laboratory operations and after years of lab work, succeeded in developing a unique biological process to preserve the Harvester™ broth into a micronutrient-rich stable fertilizer that crops can uptake more readily than synthetic fertilizers.

A WISErg microbiologist performing a QA check

WISErg markets this product as *WISErganic*™ fertilizer for sale to organic farmers and gardeners. WISErganic™ is certified as organic by OMRI, CDFA, and WSDA and will soon be available for sale in all 50 states.

Best of all, WISErganic™ is available to local farmers to produce organic food. Unlike chemical-based fertilizers, the nutrient compounds are readily available for plant uptake, saving the plant's energy and improving its flavor. WISErganic™ is a liquid product with particles sized small enough to prevent clogging drip irrigation lines, ideal for drought-stressed agriculture.

A full-circle solution: this micronutrient-packed organic fertilizer is used by growers to produce the food that ends up back in grocery stores. WISErganic™ is the product of a full circle, waste-free, eco-friendly and environmentally sustainable solution!

Harvester™ Specifications:

- Processes up to 4,000 pounds of food scraps per hour
- Processes up to 250 pounds of food scraps per load in 3 - 5 minutes
- Stores 3,000 - 10,000 gallons of ground food scrap broth in the Biology Tank
- Secure access code for safety
- All systems are continuously monitored by WISErg
- Internal shut-off valve and backflow preventer complies with local building codes
- Harvester™ dimensions: 48" wide X 44" deep x 85" high. Biology Tank dimensions: 8.5' diameter, 10.5' height for standard 5,000 gallon tank. (other tank sizes are also available)
- No connection to sanitary or storm sewer
- Harvester™ broth is classified by Federal Food and Drug Administration (FDA) as *Generally Recognized as Safe* (i.e., non-pathogenic and suitable for use in food)

The WISErg Full Circle

How it Works

WISErg upcycles food scraps into fertilizer in a clean, anabolic process called oxidative conversion that is neither anaerobic digestion nor composting. It is fully contained with no spill potential and does not attract pests. The Harvester™ stays clean and the broth is stored in an aerobic state that generates no odors and requires no refrigeration.

WISErg's process begins at the grocery store where store employees deposit food scraps into each store's Harvester™. The Harvester™ liquefies the food scraps to capture the complete nutritional value of the feedstock for upcycling into organic fertilizer. The WISErg Harvester™ consists of two major components—the nutrient extractor, and the biology tank. The nutrient extractor grinds food scraps into a nutrient-rich slurry or broth and collects data. The biology tank is a large storage vessel that preserves the broth in a biologically stable condition in a leak-proof, odor-free tank. Tanks are remotely monitored for temperature, volume, and continuously tested for pH, pathogens and other indicators for product health.

The broth is periodically collected by a vacuum truck for transport to WISErg's nearest processing plant. There it is filtered and mixed with other agricultural and food processing by-products and pro-biotic microbes to facilitate a biological conversion to optimize its nutritional value for plants. After being tested for pathogens, metals and quality, it is ready for bottling, sales and distribution as *WISErganic 3-0-1 Organic Liquid Fertilizer*.

About WISErg

Our founders: Jose Lugo and Larry LeSeuer

WISErg is a bio-clean technology company headquartered in the Pacific Northwest. Our mission is to provide a technologically disruptive but environmentally restorative sustainable alternative to conventional food scrap disposal options.

By defining food scraps as a resource rather than waste, WISErg is helping to create a closed loop within the food industry: from grower to grocer to consumer and back again in the form of organic fertilizer.

The following on-line videos explain and demonstrate the WISErg Harvester™ in action.

https://www.youtube.com/watch?v=liVK1K0iU6A

https://www.youtube.com/watch?v=axD0sGE7cc0

Contact Us

Give us a call for more information about our services and products

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Title 14 CCR, Natural Resources -- Division 7

Proposed Regulatory Insertions:

Chapter 3.3 Other Organic Materials Management Conversion Technologies

Article 1. General Authority and Scope

§ 17898.1 Authority and Scope.

(a) This Chapter sets forth permitting requirements and minimum operating standards for Organic Materials Management Conversion Technology operations and facilities that receive and process solid wastes that are subject to the requirements of this Chapter. The regulatory tier requirements of sections 17896.3 through 17896.15 are not applicable to operations and facilities that are subject to regulations elsewhere in this Division. Activities placed within the excluded tier in other chapters of this Division, may still be subject to the regulatory requirements specified in this Chapter.

(b) 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.

(c) This Chapter establishes standards and regulatory requirements for the intentional processing of organic material by means other than compost or anaerobic digestion.

(d) This Chapter implements and interprets those provisions of the Act relating to receipt, storage, handling, recovery, transfer, or processing of the organic fraction of solid waste at conversion operations and facilities. Nothing in this Chapter limits or restricts 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, nor limits or restricts cities and counties from promulgating and enforcing laws which are as strict or stricter than the regulations contained in this Chapter. However, no city or county may promulgate or enforce laws which otherwise conflict with the provisions of this Chapter.

(e) No provision in this Chapter shall be construed as relieving any owner, operator, or designee from 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 agencies, regional water quality control boards, Department of Toxic Substances Control, California Department of Industrial Relations, Division of Occupational Safety and Health, air quality management districts or air pollution control districts, local land use authorities, and fire authorities.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.2. Definitions.

(a) For the purposes of this Chapter:

(1) "Agricultural Material" means waste material of plant or animal origin, which results directly from the conduct of agriculture, animal husbandry, horticulture, aquaculture, vermiculture, viticulture and similar activities undertaken for the production of food or fiber for human or animal consumption or use, which is separated at the point of generation, and which contains no other solid waste. With the exception of grape pomace, agricultural material has not been processed except at its point of generation and has not been processed in a way that alters its essential character as a waste resulting from the production of food or fiber for human or animal consumption or use. Material that is defined in this section 17852 as "food material" or "vegetative food material" is not agricultural material. Agricultural material includes, but is not limited to, manures, orchard and vineyard prunings, grape pomace, and crop residues.

(2) "Agricultural Site" means activities located on land that is zoned for agricultural uses.

(3) "Contact Water" means water that has come in contact with waste and may include leachate.

(4)"Distribution Center Operation" means a site that receives, for the purpose of conversion / management unsold products from retail stores to which the products were originally sent. All unsold products shall be collected and processed in covered, leak-proof containers, and remain in the custody of the owner at all times. All unsold products that are putrescible material shall be refrigerated at the retail store and shall be maintained at a core temperature of 13 degrees Celsius (55 degrees Fahrenheit) or less during transport to the operation.

(5) "EA" means enforcement agency as defined in PRC section 40130.

(6) "Film plastic" means sheet plastic 10 mil or less in thickness.

(7) "Food Material" means a waste material of plant or animal origin that results from the preparation or processing of food for animal or human consumption and that is separated from the municipal solid waste stream. Food material includes, but is not limited to, food waste from food facilities as defined in Health and Safety Code section 113789 (such as restaurants), food processing establishments as defined in Health and Safety Code section 111955, grocery stores, institutional cafeterias (such as prisons, schools and hospitals), and residential food scrap collection. Food material does not include any material that is required to be handled only pursuant to the California Food and Agricultural Code and regulations adopted pursuant thereto.

(A) "Vegetative Food Material" means that fraction of food material, defined above, that is a plant material and is separated from other food material and the municipal solid waste stream. Vegetative food material may be processed or cooked but must otherwise retain its essential natural character and no salts, preservatives, fats or oils, or adulterants shall have been added. Vegetative food material includes, but is not limited to, fruits and vegetables, edible flowers and plants, outdated and spoiled produce, and coffee grounds. Vegetative food material contains no greater than 1.0 of percent physical contaminants by dry weight, and meets the requirements of section 17896.61.

(8) "Hazardous Wastes" means any waste which meets the definitions set forth in Title 22, section 66261.3, et seq.

(9) "In-tank Conversion" means the ambient pressure sequential sealed container(s) or sealed structures in which the entire conversion process occurs.

(10) "Large Volume Conversion Facility" means a facility that receives an average greater than 100 tons or more of organic materials per operating day or greater than 700 tons (2,800 cubic yards) per week of organic materials for conversion in the tank system.

(11) "Limited Volume Conversion Operation" means an operation that receives less than an average of 15 tons (or 60 cubic yards) of organic materials per operating day for handling in a conversion process. The amount of organic materials the operation receives shall not exceed 105 tons (or 420 cubic yards) per week of organic materials for conversion. Additionally, the operation shall not exceed the solid waste quantity storage capacity limitations of the general design of the operation (whichever is less).

(12) "Litter" means all solid waste which has been improperly discarded or which has migrated by wind or equipment away from the operations area. Litter includes, but is not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the state.

(13) "Medium Volume Conversion Facility" means a facility that receives an average of between 15 tons (or 60 cubic yards) and or more but less than 100 tons of organic materials per operating day for conversion. The amount of organic material the operation receives shall not be less than 700 tons (or 2,800 cubic yards) per week of solid waste for conversion. Additionally, the facility shall not exceed or the solid waste quantity storage capacity limitations of the general design of the operation facility (whichever is less).

(14) "Nuisance" includes anything which:

(A) is injurious to human health or is indecent or offensive to the senses and interferes with the comfortable enjoyment of life or property, and

(B) affects at the same time an entire community, neighborhood or any considerable number of persons. The extent of annoyance or damage inflicted upon an individual may be unequal.

(15) "On-site" means located within the boundary of the operation or facility.

(16) "Operating Day" means the daily hours of operation for a facility or operation as set forth in the application, Enforcement Agency Notification or solid waste facilities permit.

(17) "Operating Record" means an easily accessible collection of records of an operation or facility's activities and compliance with required state minimum standards under Title 14. The Record may include the Conversion Facility Plan or Conversion Report for facilities, and shall contain but is not limited to containing: agency approvals, tonnage and load checking records, facility contacts and training history. The record may be reviewed by state and local authorities and shall be available during normal business hours. If records are too voluminous to place in the main operating record or if the integrity of the records could be compromised by on-site storage, such as exposure to weather, they may be maintained at an alternative site, as long as that site is easily accessible to the EA.

(18) "Operations Area" means:

(A) the following areas within the boundary of an operation or facility as described in the permit application or Enforcement Agency Notification:

1. equipment management area, including cleaning, maintenance, and storage areas; and

2. material and/or solid waste management area, including unloading, handling, transfer, processing, and storage areas.

(B) the boundary of the operations area is the same as the permitted boundary of the operation or facility but may or may not be the same as the property boundary on which the operation or facility is located.

(19) "Operator" means the owner, or other person who through a lease, franchise agreement or other arrangement with the owner, that is listed in the permit application or Enforcement Agency Notification and is legally responsible for all of the following:

(A) complying with regulatory requirements set forth in these Articles;

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

(C) the design, construction, and physical operation of the operations area;

(D) controlling the activities at an operation or facility as listed on the permit application or Enforcement Agency Notification.

(20) "Other conversion technologies" means processes that transform organic feed stocks into useable or marketable materials, but does not include composting, vermicomposting, or anaerobic digestion.

(21) "Owner" means the person or persons who own, in whole or in part, an operation or facility and the land on which it is located. If the ownership of the operation or facility is not the same as the ownership of the land on which it is located, the owner of the land shall be identified as the "Land Owner" and the owner of the operation or facility shall be identified as the "Facility Owner."

(22) Oxidative Conversion Technologies are various aerobic processes that release and stabilize [prevent gratuitous degradation] commercially valuable nutritive, biochemical-enriched products that are substantially free of typical foodborne pathogens.

(23) "Physical Contamination" or "Contaminants" means human-made inert material contained within the feed stock inputs or outputs, including, but not limited to, glass, metal, and plastic.

(24) "Product" means any output from the organic materials conversion technology facility that is intended for sale, donation, beneficial reuse, or any other commercial / retail use;

(25) "Putrescible Wastes" include wastes that are capable of being decomposed by microorganisms with sufficient rapidity as to cause nuisances because of odors, vectors, gases or other offensive conditions, and include materials such as, but not limited to food wastes, offal and dead animals. The EA shall determine on a case-by-case basis whether or not a site is handling putrescible wastes.

these regulations]. If the EA determines that regulation under this Chapter is required, the operator shall comply with this Chapter within two years of that determination.

(c) If an activity had previously been excluded from regulations in effect prior to [operative date of these regulations], that activity may continue to operate in accordance with its regulatory exclusion until the EA determines that regulation under this Chapter is required. The EA shall make this determination no sooner than 120 days and no later than two years from [operative date of these regulations]. If the EA determines that regulation under this Chapter is required, the operator shall comply with this Chapter within two years of that determination.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 43020 and 43021, Public Resources Code. § 17896.4. Permit Name. Any permit issued pursuant to this Article, except for one issued pursuant to section 17896.12, shall be entitled: "In-vessel Digestion Facility Permit." Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 43020 and 43021, Public Resources Code.

17898.4 Permit Name.

Any permit issued pursuant to the Article, except for one issues pursuant to section 17896.12, shall be entitled: "Organic Materials Conversion Technology Permit."

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

17898.5 Regulatory Tier Requirements for Other Organic Materials Conversion Technology Facilities

Sections 17896.6 through 17896.13 set forth the regulatory tier requirements (Title 14, Division 7, Chapter 5. Article 3.0, commencing with section 18100 or Title 27, Division 2, Subdivision 1, Chapter 4, Subchapter 3, Articles 2, 3 and 3.1 (commencing with section 21570) of the California Code of Regulations) that apply to specified types of Other Organic Materials Conversion Technology Facilities. These requirements are summarized in Table 1.

In accordance with Section 17403.2, activities identified in this section are exempt from solid waste handling permitting when in compliance with the terms and conditions of this section. Any person engaged in the activities in this section that does not comply with the terms and conditions of this section is required to obtain a permit from the EA in accordance with the requirements of CITATION. In addition, violations of the terms and conditions of this subsection may be subject to the penalty provisions CITATION.

Table 1 Terms and Conditions for Solid Waste Permit Exemptions

	Organic Materials	Volume	Specific Requirements for Activity or Operation
(1)	All organic feedstocks	No more than 5,000 gallons or 25 cubic yards of material on-site at any one time.	No notification, reporting or testing requirements.
(2)	All organic feedstocks	Greater than 25 but no more than 250	Exemption applies to vermicomposting only. Vermicomposting facilities managing more than 25 cubic

(26) "Rendering" means all recycling, processing, and conversion of animal and fish materials and carcasses and inedible kitchen grease into fats, oils, proteins, and other products that are used in the animal, poultry, and pet food industries and other industries, as defined in Food and Agricultural Code section 19213.

(27) "Salvaging" means the controlled separation of solid waste material which do not require further processing, for reuse or recycling prior to in-vessel digestion activities.

(28) "Scavenging" means the uncontrolled and/or unauthorized removal of solid waste materials.

(29) "Sealed Container" means a tank, vessel, or similar apparatus capable of containing liquids and air-borne emissions during the entire conversion process to control odors or other nuisance conditions.

(30) "Sealed Structure" means a fully enclosed building capable of containing liquids and controlling air-borne emissions (e.g., negative air pressure) that could contribute to odors or other nuisance conditions.

(31) "Special Waste" includes but is not limited to:

(A) waste requiring special collection, treatment, handling, storage, or transfer techniques as defined in Title 22, section 66260.10.

(B) waste tires and appliances requiring the removal of mercury switches or chlorofluorocarbons.

(32) "Spotter" means an employee who conducts activities that include, but are not limited to, traffic control, hazardous waste recognition and removal for proper handling, storage and transport or disposal, and protection of the public from health and/or safety hazards.

(33) "Store" means to stockpile or accumulate for later use.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

Article 2: Regulatory Tier Requirements for Other organic material conversion technology Facilities.

17898.3 Pre-Existing Permits and Notifications.

(a) If a facility had previously obtained a permit in accordance with regulations in effect prior to [operative date of these regulations], that facility may continue to operate in accordance with its permit until the EA conducts a permit review pursuant to Title 14, California Code of Regulations, sections 18104.7 and 18105.9 and determines that regulation under this Chapter is required. If the EA makes such a determination, the operator shall comply with this Chapter within two years of that determination.

(b) If an operation had previously been operating pursuant to an EA Notification in accordance with regulations in effect prior to [operative date of these regulations], that operation may continue to operate in accordance with its EA Notification or regulatory authorization until the EA determines that regulation under this Chapter is required. The EA shall make this determination no sooner than 120 days and no later than two years from [operative date of

	Organic Materials	Volume	Specific Requirements for Activity or Operation
		cubic yards of material generated on- or off-site, or up to 1,000 cubic yards of material generated on-site at any one time.	yards of any organic material must meet the following conditions: (a) Thirty days prior to operation, facilities must submit a notification of intent to operate as a conditionally exempt facility to the jurisdictional health department and the department. Notice of intent must be submitted on a form provided by the department. (b) Facilities that distribute material off-site must submit annual reports to the department and the jurisdictional health department by April 1st of each calendar year. Annual reports must be submitted on forms provided by the department.
(3)	Pre-consumer vegetative food waste Yard debris Crop residues Manure and bedding Bulking agents	Greater than 25 but no more than 1,000 cubic yards of material on-site at any one time.	Exemption applies to vermicomposting only. Vermicomposting facilities managing more than 25 cubic yards of only the listed feed stocks must meet the following conditions: (a) Thirty days prior to operation, facilities must submit a notification of intent to operate as a conditionally exempt facility to the jurisdictional health department and the department. Notice of intent must be submitted on a form provided by the department. (b) Facilities that distribute material off-site must submit annual reports to the department and the jurisdictional health department by April 1st of each calendar year. Annual reports must be submitted on forms provided by the department.
(4)	All organic feed stocks	Greater than 5,000 but no more than 50,000 gallons of liquid or semi-solid material on-site at any one time; or Greater than 25 but no more than 250 cubic yards of non-liquid material on-site at any one time.	Other conversion technologies managing more than 5,000 gallons liquid or semi-solid or 25 cubic yards of non-liquid material must meet the following conditions: (a) Thirty days prior to operation, facilities must submit a notification of intent to operate as a conditionally exempt facility to the jurisdictional health department and the department. Notification must be submitted on a form provided by the department. (b) Facilities that distribute material off-site must meet the following conditions: (i) Sample and test material every 1 million gallons or 5,000 cubic yards or once per year, whichever is more frequent, to demonstrate it meets compost quality

	Organic Materials	Volume	Specific Requirements for Activity or Operation
			standards of CITATION before it is distributed for off-site use; or (ii) Ensure material meets the conditions for a commercial fertilizer as applicable in chapter CITATION; or (iii) Send material to a compliant permitted or conditionally exempt compost facility for further treatment to meet compost quality standards; or (iv) Land apply material in accordance with CITATION, Land application; or (v) Use material in accordance with CITATION Beneficial use permit exemption; or (vi) Process or manage material in an alternate manner approved by the department or the jurisdictional health department. (c) Submit annual reports to the department and the EA by April 1st of each calendar year. Annual reports must be submitted on forms provided by the department.

(2) Facilities managing under the rules and volumes of material described in Table 1 above are conditionally exempt facilities when they meet the following conditions:

(a) Comply with the performance standards, 17898.7;

(b) Allow inspections by the department and/or EA at reasonable times to verify compliance with the conditions specified in this subsection;

(c) Manage the operation to prevent attraction of flies, rodents, and other vectors;

(d) Control nuisance odors to prevent migration beyond property boundaries; and

(e) Manage the operation to prevent the migration of agricultural pests identified by local horticultural pest and disease control boards, as applicable.

§ 17898.6. Prohibitions.

The following activities are prohibited at all Other Organic Materials Conversion Technologies operations and facilities and at all sites where conversion activities that are excluded from regulation under this Chapter occur:

(a) The conversion of unprocessed mammalian tissue, including but not limited to, flesh, organs, hide, blood, bone and marrow, except when received:

(1) from a food facility as defined in Health and Safety Code section 113789, grocery store; or residential food scrap collection; or

(2) as part of a research activity for the purpose of obtaining data on pathogen reduction or other public health, animal health, safety, or environmental concerns in accordance with section 17896.8; or

(3) from a source and processed by a facility approved by the Department in consultation with the State Water Resources Control Board and the California Department of Food and Agriculture, on a case-by-case basis.

(b) The conversion of treated or untreated medical waste.

(c) The conversion / treatment of hazardous waste.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.7 Research Other Organic Materials Conversion Technology Operations.

(a) An operator conducting research on Other Organic Materials Conversion Technology operations shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), except as otherwise provided by this Chapter.

(b) In addition to the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0, section 18103.1(a)(3), the operator shall provide a description of the research to be performed, research objectives, methodology / protocol to be employed, data to be gathered, analysis to be performed, how the requirements of this subchapter will be met, and the projected timeframe for completion of the research operation.

(c) After no more than a two year period of operation, the operator of an Other Organic Materials Conversion Technology operation shall submit to the EA a report that includes the results and conclusions drawn from the research. If the EA determines, based on the report, that there are further research objectives to be met or data to be gathered, the EA may extend the research for a specified time period not to exceed two years. If the EA determines based on the report that there are no further research objectives to be met or data to be gathered, the operator shall conduct site restoration at the facility pursuant to section 17896.41, or obtain other appropriate authorization pursuant to Article 1 of this Chapter prior to continuing operations.

(d) Research for Other Organic Materials Conversion Technology operations that will be using unprocessed mammalian tissue as a feedstock for the purpose of obtaining data on pathogen reduction or other public health, animal health, safety, or environmental protection concern, shall satisfy the following additional requirements:

(1) Unprocessed mammalian tissue used as feedstock shall be generated from on-site agricultural operations, and all products derived from unprocessed mammalian tissue shall be beneficially used onsite.

(2) The operator shall prepare, implement and maintain a site-specific, research in-vessel digestion operation site security plan. The Other Organic Materials Conversion Technology site security plan shall include a description of the methods and facilities to be employed for the purpose of limiting site access and preventing the movement of unauthorized material on to or off of the site.

(3) After no more than a six-month period of operation the operator of an Other Organic Materials Conversion Technology operation using unprocessed mammalian tissue as feedstock

shall submit to the EA a report that includes the results and conclusions drawn from the research and documentation of additional requirements of this section. If the EA determines based on the report that there are further research objectives to be met or data to be gathered, the EA may extend the research for a specified time period not to exceed two years. If the EA determines based on the report that there are no further research objectives to be met or data to be gathered, the operator shall conduct site restoration at the facility pursuant to section 17896.41, or obtain other appropriate authorization pursuant to Article 1 of this Chapter prior to continuing operations.

(e) The operator shall submit all additional documentation required by subdivisions (b) and (d)(2) to the EA with the Notification and prior to the conversion of any feedstock. The EA shall determine that the EA Notification for conversion technology operations is complete and correct only if the additional documentation requirements of this section have been met.

(f) These operations shall be inspected by the EA at least once every three (3) months unless the EA approves, with Department concurrence, a reduced inspection frequency. The EA may approve a reduced inspection frequency only if it will not pose an additional risk to public health and safety or the environment but in no case shall the frequency be less than once per calendar year.

[Note: See section 18083(a)(3) for additional EA and Department requirements regarding the approval or denial of requests for reducing the frequency of inspections.] Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 43020 and 43021, Public Resources Code.

17898.7 Other Organic Materials Conversion Technology Facilities

All Organic Materials Conversion Technology Facilities shall comply with the Registration Permit requirements set forth in Title 14, Division 7, Chapter 5.o, Article 3.0 of the California Code of Regulations (commencing with section 18104).

(a) These facilities shall be inspected monthly by the EA in accordance with PRC section 43218.

NOTE: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020, and 43021, Public Resources Code.

17898.8 Other Organic Materials Conversion Technology Facility Plan

Each operator of an Other Organic Materials Conversion Technology Facility, as defined in section 17898.2(a) (27) shall file with the EA an "Other Organic Materials Conversion Technology Facility Plan" (as specified in section 18221.5.1). The information contained in the Plan shall be reviewed by the EA to determine whether it is complete and correct as defined in Title 14, Division 7, Chapter 5.0, Article 3.0, section 18101.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

Article 3. Operating Standards for Other Organic Materials Conversion Technology Facilities

§ 17898.10. Organic Material Control.

The operator of an Organic Materials Conversion Technology operation or facility must take precautions adequate measures to minimize prevent the uncontrolled release of materials that may have harmful effects to on-site users and the general public.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.11. Cleaning.

(a) Organic Materials Conversion Technology operations, facilities, and their equipment, boxes, bins, pits and other types of containers shall be cleaned using the following schedule, or at a lesser frequency, approved by the EA, in order to prevent the propagation or attraction of flies, rodents, or other vectors:

(1) all operations and facilities shall be cleaned each operating day of all loose materials and litter;

(2) all operations or facilities that operate 24 hours per day must clean the operations or facilities at least once every 24 hours.

(b) The entrance and exit shall be cleaned at a frequency which prevents the tracking or off-site migration of waste materials.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.12. Drainage and Spill Control.

(a) Drainage at all organic materials conversion technology operations and facilities shall be controlled to:

(1) minimize the creation of contact water outside of production units and sealed containers;

(2) prevent to the greatest extent possible given existing weather conditions, the uncontrolled offsite migration of contact water;

(3) protect the integrity of roads and structures;

(4) protect the public health; and

(5) prevent safety hazards and interference with operations.

(b) The operator shall take measures to prevent spillage and promptly respond to any leaks or spills that occur.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.13. Dust Control.

(a) The operator shall take adequate measures to minimize the creation, emission, or accumulation of excessive dust and particulates, and prevent other safety hazards to the public caused by obscured visibility. The operator shall minimize the unnecessary handling of materials during processing to prevent the creation of excessive dust. Measures to control dust include, but are not limited to: reduced processing, periodic sweeping and cleaning, misting systems or ventilation control. One or more of the following may be an indication that dust is excessive:

(1) safety hazards due to obscured visibility; or

(2) irritation of the eyes; or

(3) hampered breathing;

(4) migration of dust off-site.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 40053, 43020 and 43021, Public Resources Code.

§ 17898.14. Hazardous, Liquid, and Special Wastes.

(a) An Organic Materials Conversion Technology operation or facility shall not intentionally accept or store hazardous wastes, including batteries, oil, paint, and special wastes, unless it has been approved to handle the particular waste by the appropriate regulatory agencies. Such approvals shall be placed in the operating record.

(b) At Organic Materials Conversion Technology operations and facilities where unauthorized hazardous wastes are discovered, control measures as are necessary to protect public health, safety and the environment, such as elimination or control of dusts, fumes, mists, vapors or gases shall be taken prior to isolation or removal from the operation or facility.

(c) Organic Materials Conversion Technology operations and facilities shall be properly equipped to handle liquid wastes and sludge wastes in a manner to protect public health, safety, and the environment.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.15. Litter Control.

Litter at Organic Materials Conversion Technology operations and facilities shall be controlled, and routinely collected to prevent safety hazards, nuisances or similar problems and off-site migration to the greatest extent possible given existing weather conditions.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.16. Load Checking.

(a) The operator of an attended organic materials conversion technology operation or facility shall implement a load checking program to prevent the acceptance of waste which is prohibited by this Chapter. This program must include at a minimum:

(1) the number of random load checks to be performed;

(2) a location for the storage of prohibited wastes removed during the load checking process that is separately secured or isolated;

(3) records of load checks and the training of personnel in the recognition, proper handling, and disposition of prohibited waste. A copy of the load checking program and copies of the load checking records for the last year shall be maintained in the operating record and be available for review by the appropriate regulatory agencies.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.17. Maintenance Program.

All aspects of the organic materials management conversion technology operation or facility shall be maintained in a state of good repair. The operator shall implement a preventative maintenance program to monitor and promptly repair or correct deteriorated or defective conditions.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.18. Medical Wastes.

Medical waste, unless treated and deemed to be solid waste, which is regulated pursuant to the Medical Waste Management Act (commencing with Section 117600 of the Health and Safety Code) whether treated or untreated, shall not be accepted at an organic materials conversion technology operation or facility, unless approved by the appropriate regulatory agencies.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.19. Noise Control.

Noise shall be controlled to prevent health hazards and to prevent nuisance. Measures to control noise include but are not limited to: posting of warning signs that recommend or require hearing protection; separation by barriers that limit access to authorized personnel only; or, enclosures to reduce noise transmission. Compliance with specific provisions regarding noise control in a local land use approval, such as a conditional use permit or CEQA mitigation measures, shall be considered compliance with this standard.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.20. Non-Salvageable Items.

Drugs, cosmetics, foods, beverages, hazardous wastes, poisons, medical wastes, syringes, needles, pesticides and other materials capable of causing public health or safety problems shall not be salvaged at organic materials conversion technology operations or facilities unless approved by all applicable agencies and the EA.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.21. Odor Best Management Practice Feasibility Report.

(a) The operator may voluntarily prepare an Odor Best Management Practice Feasibility Report (Report) or the EA may require the operator to prepare a Report after consecutive or chronic odor violations as determined pursuant to section 17896.31(f).

(b) The Report shall:

(1) Present representative and correlating odor data for each potential onsite odor source including but not limited to: odor severity, odor characteristics, time and weather conditions when data was collected, description of operations associated with the source, and any odor impacts or complaints received;

(2) Identify, based on data required in subdivision (b)(1), which onsite odor sources are and are not contributing to odor impacts and rank those contributing to the odor impacts (complaints/violations) in order of impact;

(3) For odor sources contributing to odor impacts, as identified above in subdivision (b)(2):

(A) List of all best management practices (BMPs), using the Comprehensive Compost Odor Response Project (CCORP) or other industry-accepted practice(s) as a guideline, which the operator has used to minimize odor and analyze each BMP for the following:

1. The effectiveness of the BMP in reducing odor impacts;

2. The potential for more extensive use of the BMP to minimize odor impacts described by complainants;

3. If the BMP has been operationally practical and if more extensive use of the BMP would be operationally practical;

4. The approximate cost to implement a more extensive use of the BMP;

5. Any permits or permit changes necessary to use the BMP more extensively;

6. Overall recommendation if existing BMPs should be continued and if more extensive use of the BMP is recommended; and

7. If the BMP has been found to be ineffective (include supporting data).

(B) List of all potential best management practices (BMPs), using the

Comprehensive Compost Odor Response Project (CCORP) or other industry-accepted practice(s) as a guideline, which the operator has not used and analyze each potential BMP to determine:

1. The potential for the BMP to reduce odor impacts described by complainants;

2. If the BMP is operationally practical;

3. The approximate cost to implement the BMP;

4. Any permits or permit changes necessary to use the BMP; and

5. Overall recommendation and ranking of implementing the BMP.

(C) Develop a plan and schedule for implementing the BMP(s) that are recommended, based on the analysis conducted pursuant to subdivision (b)(3)(A) and (B).

(c) The operator shall submit the Report required by subdivisions (a) and (b), and the plan and schedule required by subdivision (b)(3)(C) to the EA and the Department for review. If the EA has required the operator to prepare a Report pursuant to subdivision (a), the operator shall submit the plan and schedule within 14 days or other timeframe approved by the EA.

(d) The EA, in consultation with the Department, shall within 30 days:

(1) approve the Report and associated plan and direct the operator in writing to implement the plan in whole or in part; and/or

(2) direct the operator in writing to submit specific changes or additional information within a timeframe specified by the EA.

(e) The EA may issue a Notice and Order pursuant to section 17863.4(f) to carry out subdivision (d)(1) or (d)(2).

Note: Authority cited: Sections 40502, 43020, 43021 and 43209.1, Public Resources Code. Reference: Sections 43020, 43021 and 43209.1, Public Resources Code.

§ 17898.22. Odor Minimization Plan.

(a) All organic materials conversion technology operations and facilities shall prepare, implement and maintain a site specific odor impact minimization plan. A complete plan shall be submitted to the EA with the EA Notification or permit application.

(b) Odor impact minimization plans shall provide guidance to on-site operation personnel by describing, at a minimum, the following items. If the operator will not be implementing any of these procedures, the plan shall explain why it is not necessary.

(1) an odor monitoring and data collection protocol for on-site odor sources, which describes the proximity of possible odor receptors and a method for assessing odor impacts at the locations of the possible odor receptors; and,

(2) a description of meteorological conditions effecting migration of odors and/or transport of odor causing material off-site. Seasonal variations that effect wind velocity and direction shall also be described; and,

(3) a complaint response and recordkeeping protocol; and,

(4) a description of design considerations and/or projected ranges of optimal operation to be employed in minimizing odor, including method and degree of aeration, moisture content of materials, feedstock characteristics, airborne emission production, process water distribution, pad and site drainage and permeability, equipment reliability, personnel training, weather event impacts, utility service interruptions, and site specific concerns as applicable; and,

(5) a description of operating procedures for minimizing odor, including aeration, moisture management, feedstock quality, drainage controls, pad maintenance, wastewater pond controls, storage practices (e.g., storage time and pile geometry), contingency plans (i.e., equipment, water, power, and personnel), bio filtration, and tarping as applicable.

(c) The odor impact minimization plan shall be revised to reflect any changes, and a copy shall be provided to the EA, within 30 days of those changes.

(d) The odor impact minimization plans shall be reviewed annually by the operator to determine if any revisions are necessary.

(e) The odor impact minimization plan shall be used by the EA to determine whether or not the operation or facility is following the procedures established by the operator. If the EA determines that the odor impact minimization plan is not being followed, the EA may issue a Notice and Order (pursuant to section 17898) to require the operator to either comply with the odor impact minimization plan or to revise it.

(f) If the odor impact minimization plan is being followed and the EA determines, in a manner consistent with section 18302(d), that odor impacts are still occurring, the EA shall direct the operator to prepare and implement an Odor Best Management Practice Feasibility Report (Report) as specified in section 17896.30. The EA shall consider the results of the Report prior to issuing a Notice and Order (pursuant to section 17898) requiring the operator to take additional reasonable and feasible measures to minimize odors unless:

(1) the EA has evidence that a specific and immediate action would reduce the odor impacts;

(2) there is an imminent threat to public health and safety and the environment; or (3) a public nuisance has occurred.

Note: Authority cited: Sections 40502, 43020, 43021 and 43209.1, Public Resources Code. Reference: Sections 43020, 43021 and 43209.1, Public Resources Code.

§ 17898.23. Odor and Nuisance Control.

Each organic material conversion technology operation and facility shall be conducted and maintained:

(a) in a manner that minimizes odor impacts so as to not cause a nuisance, and
(b) to otherwise prevent the creation of a nuisance.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.24. Parking.

Adequate off-street parking area(s) shall be provided, if necessary, for transfer vehicles. Compliance with specific provisions regarding adequacy of off-street parking in a local land use approval, such as a conditional use permit or CEQA mitigation measures, shall be considered compliance with this standard.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.25. Personnel Health and Safety.

The Injury, Illness, and Prevention Program (IIPP) required by Title 8, California Code of Regulations, section 3203, shall be available for review by local and state inspectors during normal business hours. Nothing in this section is intended to make the EA responsible for enforcing the IIPP.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.26. Organic Materials Conversion Technology Solid Waste Handling.

(a) Putrescible wastes shall be incorporated into the process system or stored in a sealed container or sealed structure or removed from the site within 48 hours from the time of receipt. This requirement does not apply to putrescible waste stored in a sealed bag, bottle, or can.

(b) All non-putrescible wastes not intended for conversion shall be removed within 7 days from the date of receipt or at an alternate frequency approved by the EA.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.27. Protection of Users.

An organic materials conversion technology operation or facility shall be designed, constructed, operated, and maintained so that contact between the public and solid wastes is minimized. This may be accomplished through the use of railings, curbs, grates, fences, and/or spotters.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.28. Roads.

All on-site roads and driveways shall be designed and maintained to minimize the generation of dust and tracking of soil onto adjacent public roads. Such roads shall be kept in safe condition and maintained to allow vehicles utilizing the organic materials conversion technologies operation or facility to have reasonable all-weather access to the site.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.29. Sanitary Facilities.

The operator shall maintain all sanitary and hand-washing facilities which may be required, by applicable state or local requirements, in a reasonably clean and adequately supplied condition.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.30. Scavenging and Salvaging.

Each organic materials conversion technology operation or facility shall meet the following requirements:

(a) scavenging shall be prohibited;

(b) salvaging of materials, such as metal, paper, glass and cardboard is permitted as an integral part of the operation, subject to conditions established by the EA, the local land use authority, or other approving agencies.

(c) salvaging activities shall be conducted in a planned and controlled manner and not interfere with other aspects of site operation. Activities shall be conducted so as not to interfere with expeditious entry and exit of vehicles delivering material to the organic materials conversion technology operation or facility. Salvaging activities conducted at an organic materials conversion technology operation or facility shall be confined to specified, clearly identified areas of the organic materials conversion operation or facility, and controlled to prevent health, safety or nuisance problems;

(d) storage of materials salvaged from organic materials shall be ancillary to the activities of the operation or facility unless such storage is planned as an integral part of the operation. Materials salvaged onsite shall be stored away from other activity areas in specified, clearly identifiable areas as noted in the Organic Materials Conversion Technology Facility Plan or Organic Materials Conversion Technology Report. They shall be arranged to minimize risk of fire, health and safety hazard, vector harborage, or other hazard or nuisance, and limited to a specified volume and/or duration as described in the Enforcement Agency Notification, Organic Materials Conversion Technology Facility Plan, or Organic Materials Conversion Facility Report.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.31. Signs.

(a) For organic materials conversion technologies operations or facilities not open to the public, each point of access from a public road shall be posted with an easily visible sign indicating the Organic Materials Conversion Technology operation or facility name and location of nearest public operation or facility.

(b) If the operation or facility is open to the public, there shall be an easily visible sign at all public entrances indicating the name of the operator, the operator's telephone number, schedule of charges, hours of operation, and a listing of the general types of materials which either (1) WILL be accepted, or (2) WILL NOT be accepted.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 177898.32. Site Restoration.

All Organic Materials Conversion Technology operations and facilities shall meet the following requirements:

(a) The operator shall provide the EA written notice of intent to perform site restoration, at least 30 days prior to beginning site restoration.

(b) The operator(s) and owner(s) shall provide site restoration necessary to protect public health, safety, and the environment.

(c) The operator shall ensure that the following site restoration procedures are performed upon completion of operations and termination of service:

(1) The operation and facility grounds, ponds, and drainage areas shall be cleaned of all residues including, but not limited to, liquids, compost materials, construction scraps, and other materials related to the operations, and these residues legally recycled, reused, or disposed.

(2) All machinery shall be cleaned and removed or stored securely.

(3) All remaining structures shall be cleaned of organic materials, compost materials, dust, particulates, or other residues related to the site restoration operations.

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

§ 17898.33. Supervision and Personnel.

The operator shall provide adequate supervision and a sufficient number of qualified personnel to ensure proper operation of the site in compliance with all applicable laws, regulations, permit conditions and other requirements. The operator shall notify the EA in writing of the name, address and telephone number of the operator or other person responsible for the operation. A copy of the written notification shall be placed in the operating record.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.34. Training.

Personnel assigned to the operation or facility shall be adequately trained in subjects pertinent to site organic materials operations and maintenance, hazardous materials recognition and screening, use of mechanized equipment, environmental controls, emergency procedures and the requirements of this Article. A record of such training history shall be maintained and made available for inspection.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.35. Vector, Bird and Animal Control.

The operator shall take adequate steps to control or prevent the propagation, harborage and attraction of flies, rodents, or other vectors, and animals, and to minimize bird attraction.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

Article 4. Record Keeping Requirements

§ 17898.45. Record Keeping Requirements.

Each operator shall meet the following requirements:

(a) Each operator shall maintain records of incoming weights or volumes and outgoing salvage or residual weights or volumes in a form and manner approved by the EA. Such records shall be: submitted to the EA or the Department upon request; be adequate for overall planning and control purposes; and, be as current and accurate as practicable;

(b) All records required by this Chapter shall be kept by the operator in one location and accessible for five (5) years and shall be available for inspection by the EA and other duly authorized regulatory agencies during normal working hours.

(c) The operator shall submit copies of specified records to the EA upon request or at a frequency approved by the EA;

(d) The operator shall maintain a daily log book or file of special occurrences encountered during operations and methods used to resolve problems arising from these events, including details of all incidents that required implementing emergency procedures. Special occurrences shall include but are not limited to: fires, injury and property damage, accidents, explosions, receipt or rejection of prohibited wastes, lack of sufficient number of personnel pursuant to section 17898.42, flooding, earthquake damage and other unusual occurrences. In addition, the operator shall notify the EA by telephone within 24 hours of all incidents requiring the implementation of emergency procedures, unless the EA determines that a less immediate form of notification will be sufficient to protect public health and safety and the environment;

(e) The operator shall record any written 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;

(f) The operator shall maintain a copy of the written notification to the EA and local health agency of the name, address and telephone number of the operator or other person(s) responsible for the operations as required by section 17898.33;

(g) The operator shall maintain records of employee training as required by section 17898.34;

(h) all organic materials conversion technology operations and facilities shall maintain records as required by section 18809 et seq.

(i) The operator shall record all test results generated by compliance with Article 6 of this Chapter, including but not limited to, metal concentrations, physical contamination limits, fecal coliform and Salmonella sp. densities, temperature measurements, and batch dates.

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

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.46. Documentation of Enforcement Agency Approvals, Determinations, and Requirements.

Approvals, determinations, and other requirements the EA is authorized to make under this Chapter shall be provided in writing to the operator and placed in the operating record by the operator.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

Article 5. Organic Material Conversion Technology Output Handling Standards

§ 17898.47. Output Handling.

(a) Output not contained in a process container shall, within 24 hours, be:

(1) stored or processed on-site in a process container or sealed structure unless the EA approves an alternative handling method after determining the alternative method will not pose an additional risk to public health and safety or the environment; or

(2) removed from the site and either:

(A) transported as solid waste only to another solid waste facility or operation for disposal, additional processing, composting, or additional processing disposal; or

(B) used or disposed in a manner approved by local, state, and federal agencies having appropriate jurisdiction. Any converted organic material that will be land applied must meet the requirements of section 17852(a)(24.5).

(C) disposed in a manner approved by local, state, and federal agencies having appropriate jurisdiction as set forth in the Consolidated Regulations for Treatment, Storage, Processing or Disposal of Solid Waste (commencing at Title 27, California Code of Regulations, section 20005).

(b) Output that has not been analyzed for metal concentration pursuant to section 17896.59, pathogen concentration pursuant to section 17898.50(b)(1), and physical contaminants

pursuant to section 17898.51 or is known to contain any metal in amounts that exceed the maximum metal concentrations described in section 17898.49, pathogens that exceed the maximum acceptable pathogen concentrations described in section 17898.40(b)(1), or physical contaminants that exceed the maximum physical contamination limits described in section 17898.51 shall be designated for disposal, additional processing, or other use as approved by local, state agencies having appropriate jurisdiction.

Note: Authority cited: Sections 40502, 43020 and 43021, Public Resources Code. Reference: Sections 40053, 43020 and 43021, Public Resources Code.

§ 17898.48. Sampling Requirements.

(a) Operators shall verify that products produced at an organic materials conversion technology facility (pursuant to section 17898.47(a)(2)) meets the maximum metal concentrations limits specified in section 17898.49, and the pathogen reduction requirements specified in section 17898.50. This verification shall be performed by taking and analyzing a composite sample. The sampling of product produced at an organic materials conversion technology facility (pursuant to section 17898.47(a)(2)) shall occur at prior to the point where the product is removed from the site, bagged or bottled for sale, given away for beneficial use and removed from the site or otherwise beneficially used on site. Analytical results indicating compliance with sections 17898.49, 17898.50, and 17898.51 shall be received by the operator prior to the sampled product leaving the site. Sample Test results of samples must be received by the operator prior to removing product from the organic materials conversion technology facility where it was produced.

(b) This sampling shall be performed by taking and analyzing at least one composite sample, following the requirements of this section as follows:

(1) An operator shall take and analyze one composite sample for every 5,000 cubic-yards or gallons of product produced. If the organic materials conversion technology facility produces less than 5,000 cubic-yards or gallons of product in a 12 month period, the operator shall analyze at least one composite sample every 12 month period.

(2) Composite sample analysis for maximum acceptable metal concentrations, specified in section 17898.49, shall be conducted at a laboratory certified by the California Department of Public Health, pursuant to the Health and Safety Code.

(c) A composite sample shall be representative and random, and may be obtained by taking twelve (12) mixed samples as described below.

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

(2) The twelve samples shall be extracted from within the product stream.

(d) The EA may approve alternative methods of sampling that ensures the maximum metal concentration requirements of section 17898.49, and the pathogen reduction requirements of section 17898.50, and the physical contamination limits requirements of section 17898.51, as applicable, are met.

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

§ 17898.49. Maximum Metal Concentrations.

(a) Product produced at an organic materials conversion technology facility (pursuant to section 17898.47(a)(2)) shall not exceed the maximum acceptable metal concentrations shown in Table 2. 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, disposal, or other use as approved by local, state and federal agencies having appropriate jurisdiction. Sample Test results of samples must be received by the operator prior to removing product from the organic materials conversion technology facility where it was produced.

Table 2 - Maximum Acceptable Metal Concentrations

Constituent	Concentration (mg/kg) dry	Concentration (mg/L) wet based on product density of 1.14 kg/L
Arsenic (As)	41	47
Cadmium (Cd)	39	45
Chromium (Cr)*		0
Copper (Cu)	1500	1710
Lead (Pb)	300	345
Mercury (Hg)	17	20
Nickel (Ni)	420	480
Selenium (Se)	100	115
Zinc (Zn)	2800	3200

(a)(1) Although there is no maximum acceptable metal concentration for chromium in product, operators subject to subdivision (a) shall arrange for concentrations of chromium in product they produce to be determined in connection with the analysis of other metals. Operators shall maintain records of all chromium concentrations together with their records of other metal concentrations.

(b) Alternative methods of compliance to meet the requirements of this section may be approved by the EA if the EA determines that the alternative method will ensure that the maximum acceptable metal concentrations shown in Table 2 are not exceeded.

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

§ 17898.50. Pathogen Reduction.

(a) Product produced at an organic materials conversion technology facility (pursuant to section 17898.47(a) (2)) shall not exceed the maximum acceptable pathogen concentrations described in subdivision (b) (1) of this section. Product that contains any pathogens in amounts that exceed these pathogen reduction requirements shall be designated for disposal, additional processing, disposal, or other use as approved by local, state and federal agencies having appropriate jurisdiction. Sample Test results of samples must be received by the operator prior to removing product from the organic materials conversion technology facility where it was produced.

(b) Operators of organic materials conversion technology facilities that produce a product shall ensure that:

(1) The density of fecal coliform in product produced at an organic materials conversion technology facility shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), and the density of Salmonella sp. bacteria in this product shall be less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis). Sample Test results of samples must be received by the operator prior to removing product from the site.

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

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

§ 17898.51. Physical Contamination Limits. This section shall become operative January 1, 2018.

(a) Product produced at an organic materials conversion technology facility (pursuant to section 17898.47(a)(2)) shall not contain more than 0.10.5% by dry weight of physical contaminants greater than 4 millimeters; no more than 20% by dry weight of this 0.5% shall be film plastic greater than 4 millimeters. Product that contains more that 0.1% by weight of physical contaminants greater than 4 millimeters in excess of either one or both of these limits shall be designated for disposal, additional processing, disposal, or other use as approved by local, state and federal agencies having appropriate jurisdiction. Verification of physical contamination limits shall occur at prior to the point where product is sold and removed from the site, bagged or bottled for sale, given away for beneficial use and removed from the site or otherwise or beneficially used on-site. Sample Test results of samples must be received by the operator prior to removing product from the organic material conversion technology facility where it was produced.

(b) If the EA has reason to believe, based on the EA's visual observation or otherwise, that a determination of percent physical contaminants made pursuant to section 17898.51(b) is not accurate, the EA may require an operator of an organic materials conversion technology facility to take a composite sample of product in the presence of the EA and send the sample to a laboratory at which physical contaminants greater than 4 millimeters shall be collected and weighed to determine the percentage of physical contaminants by dry weight using the following protocol:

(1) Determine the total dry weight of the composite sample as obtained in section 17898.51(d);

(2) Separate the physical contaminants greater than 4 millimeters from the composite sample and determine the dry weight of the physical contaminants;

(3) Determine the percentage of physical contaminants by dividing the dry weight of the physical contaminants by the total dry weight of the composite sample.

(c) Any sampling conducted to comply with this section shall require a composite sample. A composite sample shall be representative and random, and may be obtained by taking twelve (12) mixed samples

(d) Alternative methods of compliance to meet the requirements of this section may be approved by the EA if the EA determines that the alternative method will ensure the physical contaminant requirements of this section are met.

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