

# Questions and Answers: In-Vessel Digestion Regulations

## Odor

**Question 1:** Should Enforcement Agencies (EA) and operators respond to non-written complaints? Do EAs and operators need to respond to anonymous complaints?

**Answer 1:** Title 14, California Code of Regulations (CCR) 18302 and 18303 outline the documentation necessary for a written complaint as well as the criteria for what an odor complaint investigation shall include. Note that CalRecycle considers any complaints received through the CalEPA complaint system or referred in writing to the EA by another agency as written complaints.

The EA may investigate non-written complaints and anonymous complaints at their own discretion. The EA may set their own procedures for handling complaints as described in regulation and their enforcement program plan. Operators are required to prepare, implement, and maintain a site-specific odor impact minimization plan (OIMP), which includes a protocol for receiving and responding to complaints, and is described in 14 CCR 17863.4 (for compostable material handling facilities and operations) or 14 CCR 17896.31 (for in-vessel digestion facilities or operations).

**Question 2:** What is the reason for noting an intensity rating on the odor circuit form?

**Answer 2:** Title 14 CCR 18302(d)(3) describes the requirements for odor complaint investigations. Specifically, subsection (3)(C) states that the EA shall, “document odor characteristics, intensity, and duration at the complainant’s location, the solid waste facility/operation, and other odor sources adjacent to the solid waste facility/operation.” Documenting odor intensity will help to verify a complaint as well as to develop data on the specific types of odors observed in and around a compostable material handling activity. The data will assist the EA better identify the source of odors and what operational activities contribute to changes in odor intensity.

**Question 3:** Who is responsible for fire and smoke complaints at compostable material handling operations and facilities? Do these complaints overlap with odor complaints?

**Answer 3:** Fire authorities and the air districts have authority over fire and smoke issues at compostable material handling activities. The main concerns relative to fire and smoke are the potential threat to public health and safety and damage to property. Smoke is an air containment that can affect public health and the environment. The operator must report fire and resulting smoke incidents to the EA. The EA may facilitate the sharing of information with the local fire authority and the air district. The EA should investigate the circumstances that lead to the fire to determine if the operator may need to take additional measures to reduce the potential threat of a future fire developing at the site. Note that operators of compostable material handling facilities and operations are required to meet general operating standards

relative to fire prevention, protection, and control measures as described in 14 CCR 17867(a)(9).

**Question 4:** Who has jurisdiction over odors from licensed rendering facilities?

**Answer 4:** The California Department of Food and Agriculture (CDFA) and local air districts regulate rendering facilities, including animal food manufacturers. They are not subject to solid waste facility regulations pursuant to Title 14 sections 17855 and 17896.6.

**Question 5:** Who is responsible to inspect odor complaints at rendering facilities?

**Answer 5:** Odor complaints regarding a rendering activity should be investigated by the local air district.

**Question 6:** Is there a scenario where an EA can cite a violation for an Odor Impact Mitigation Plan (OIMP) even if there are no odor complaints?

**Answer 6:** Yes, an EA can cite a violation if they determine that the facility or operation is not following the procedures established in the OIMP pursuant to 14 CCR 17863.4 and 17896.3. All compostable material handling facilities and operations and in-vessel digestion facilities and operations are required to prepare, implement, and maintain a site-specific OIMP as described in Title 14 CCR 17863.4 and 17896.31, respectively. The OIMP shall describe the facility design and operation and be reviewed annually and revised as necessary.

**Question 7:** Does the EA need to verify odor complaints in person with the complainant? What if the EA is unable to verify a complaint?

**Answer 7:** CalRecycle recommends that EAs confirm odors directly with a complainant's participation, but it is not required. However, if the complainant is claiming that the odor is interfering with their use and comfortable enjoyment of life or property, their statement (written or verbal) should be documented consistent with and as described in 14 CCR 18302 (d)(3)(B). While verifying the odor complaint, the EA should observe at or near the complainant's location. The EA should make every attempt to verify a complaint. However, if the EA cannot verify the complaint, the EA should document and file the attempts in the investigation record.

**Question 8:** Which agency is involved with approving the use of chemical/biological additives to odor control misters at compost facilities or operations?

**Answer 8:** Facility operators must submit to the EA changes to operation and design, including the use of odor control measures, through the appropriate approval process. Other entities that may be involved with the review of the proposed use of deodorizers include the local land use authority and air districts.

**Question 9:** What agencies determine the operational or design parameters at compostable material handling operations or facilities?

**Answer 9:** Local land use authorities, EAs, regional water quality control boards, and air districts may all have a role in reviewing proposed design and operational aspects of a compostable material handling activity.

**Question 10:** To whom should the EA refer odor complaints regarding agricultural activities?

**Answer 10:** EAs must investigate complaints regarding a compostable material handling activity. In addition, 14 CCR, Article 8 – Agricultural Solid Waste Management Standards, beginning with section 17801 et seq, provide the EA with authority to investigate agricultural operations relative to excessive vectors, odor, dust, or feathers. The EA should refer all other odor complaints to the air district.

**Question 11:** If an operation is not required to have an OIMP, is it required to comply with Title 14 state minimum standards?

**Answer 11:** Yes.

**Question 12:** Can EA's use air district findings to "verify" odor complaints?

**Answer 12:** An EA can use the air district staff inspector findings to assist them in their own investigation of odor complaints. However, the EA cannot rely entirely on air district findings to support their own determination of the validity of a complaint.

**Question 13:** Does the EA tell the operator what to include in their OIMP?

**Answer 13:** No, it is the responsibility of the operator to submit an OIMP that is consistent with the requirements in 14 CCR 17863.4 (for composting) or 17896.31 (for in-vessel digestion).

**Question 14:** When is an Odor Best Management Practices Feasibility Report required?

**Answer 14:** An operator can voluntarily develop an Odor Best Management Practice Feasibility Report at any time, and an EA may require a report after consecutive or chronic odor violations pursuant to Title 14 Section 17863.4(f) (for composting) or 17869.31(f) (for in-vessel digestion).

**Question 15:** Does an OIMP violation require more than one complaint to the EA?

**Answer 15:** There is no threshold relative to complaints and findings of noncompliance with the requirements to implement an OIMP. At any time that an EA finds that an OIMP is not effective in minimizing odors, they can cite the operator and require a corresponding revision to the OIMP. The EA finding that the OIMP is not effective is not dependent on verified odor complaints.

**Question 16:** Are EAs responsible for addressing odor issues associated with facilities and operations that handle compostable materials but do not meet the definition of a compostable material handling operation or facility or in-vessel facility?

**Answer 16:** EAs are only responsible for investigating odor complaints for Title 14 compostable material handling facilities and operations, such as composting, chippers and grinders, and in-vessel digesters.

**Question 17:** Can other regulatory agencies, such as local air districts, have access to operating documents, such as an Odor Impact Minimization Plan (OIMP), for a specific compost facility? Can other regulatory agencies have access to best management practices used at compostable materials handling facilities and operations?

**Answer 17:** Yes, OIMPs are part of the operating record of compostable material handling activities and are available to the public.

## Regulatory Tiers

**Question 1:** Operation A is owned and operated by Operator A and is on Parcel A. Operation A currently has a registration permit. Operation B is operated by some as yet undefined operator and is located on Parcel B. Owner A owns Parcel B. This new operation would operate under enforcement agency notification. The properties are contiguous. There may be some equipment, personnel, and feedstock sharing. Is this one operation on two plots of land with the maximum of 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time; or two operations, each with a maximum of 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time?

**Answer 1:** Since the operations on Parcels A & B are sharing equipment, personnel and feedstock this is one operation and should be regulated as such. The operator of the facility described above would be required to obtain a full compostable material handling facility permit. However, if these two operations could operate independently of each other, they could be considered separate and obtain the appropriate notification/permit. See also LEA Advisory 39.

**Question 2:** A transfer/processing facility with a full permit receives compostable materials. The compostable materials handling is described in the Report of Facility Information. The transfer/processing facility sends compost and wood chips off-site to other facilities/markets. Is this facility excluded per 14 CCR §17855(a)(5)(A), Excluded Activities at Transfer/Processing Facilities?

**Answer 2:** No, the compostable material handling activity cannot be excluded from the Compostable Materials Handling Operations and Facilities Regulatory Requirements because 14 CCR 17855(a)(5)(A), Excluded Activities at Transfer/Processing Facilities, states that the compostable materials activity must be described in the report of facility information and the materials will only be used on-site. The operator would be required to revise the transfer/processing facility permit to include the compostable materials operation or if the operations are completely separate the operator could request two separate permits.

**Question 3:** Can the operator of an existing compost facility in the standardized tier evaluate the potential of clean, source-separated drywall as a compost feedstock in a 12-month pilot to determine operational procedures to accommodate this addition? The operator is currently “up-tiering” from a standardized tier to a full tier as required in the new regulations. This process will take about a year. The proposal includes the acceptance of drywall at about 20 tons per day or 500 tons per month or 6,000 tons per year. This will not impact the facility’s total permitted limit of 100,000 tons per year.

**Answer 3:** Per 14 CCR 17862 an operator can conduct research operations. The research must be separate from the ongoing permitted activities in order to monitor the specific drywall window. The regulations limit the cubic yards of the research project to 5,000 cubic yards of feedstock, additives, amendments, chipped and ground material and compost from the research on-site at any one time. The enforcement agency would

have to make sure that the research portion of the facility remained under the 5,000 cubic yard limit. The current proposal does not appear to be under the 5,000 cubic yards. The operator would have to provide the enforcement agency with the conversion factor used and a rationale for the conversion factor. Also the operator has to provide all the required information from 14 CCR 17862. Lastly, the operator should plan on including the proposal into the full permit, if it looks like the pilot will be successful. Additionally, the regulations require that the research operation comply with all the enforcement agency notification tier requirements.

**Question 4:** If an operator has an existing transfer/processing facility that has a full solid waste facility permit and transfers curbside green waste as part of the operation (no processing is done), is the green waste portion subject to the compostable materials regulations? If so, which part of the regulations? Two different scenarios: In both cases it's just straight transfer of source separated green waste handled apart from municipal solid waste and other waste streams; it's deposited on the ground in a separate area outside the building (municipal solid waste is deposited in the building), pushed into the building and into transfer trailers and taken away. In one case it's always transferred out within 48 hours, maximum. In the other it's always transferred out within 6 days, maximum.

**Answer 4:** Assuming that the material received at the site qualifies as green material as defined in 14 CCR 17852(a)(21) and assuming that the material continues to qualify as green material as it is handled on the site (for example it is not contaminated with municipal solid waste while being transferred), and assuming that the enforcement agency has already approved holding the material longer than 48 hours but less than 7 days, then this activity falls under 14 CCR 17852(a)(10) in that it is the handling of compostable material. The storage and activities associated with the green material piles should be viewed as a compostable material handling activity and an integral part of the general transfer/processing facility operations. As such it can be included under the transfer/processing facility permit, included in the report of facility information, and should be inspected as a separate unit utilizing the appropriate compostable material handling regulations and appropriate inspection form.

**Question 5:** A farmer/rancher is proposing to accept green waste generated in a nearby city and perhaps from a Transfer Station for a fee. The farmer/rancher proposes to windrow compost the green waste to kill weed seeds and then incorporate (via disking) the finished compost into the soil on his 505-acre property for soil improvement. Is this operation an agricultural material composting operation, a green material composting operation or facility? Would the agricultural exclusion apply to the operation or facility?

**Answer 5:** If it is assumed that the farmer/rancher plans on composting green material, as defined in 14 CCR 17852(a)(21), then the facility would be considered a green material composting operation or facility. An agricultural exclusion would not apply to the operation or facility as no exclusions identified in 14 CCR 17855 apply to the proposed operation. If it has up to 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time, the activity will be an operation that needs to comply with the enforcement agency notification requirements set forth in 14 CCR, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100). If it has more than 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time, it will be a facility that will need to obtain a

compostable materials handling facility permit pursuant to the requirements of 27 CCR, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3 and 3.1 (commencing with section 21450) prior to commencing operations.

**Question 6:** A request has been made to bring curbside green waste (about 10 tons per day) to a parcel adjacent to a permitted landfill. The green waste would be unloaded and then loaded into transfer trailers and taken to a site for processing. What tier would this fall into?

**Answer 6:** Assuming that the material is “green material”, as defined in 14 CCR 17852, this operation would be regulated in the Enforcement Agency Notification tier per 14 CCR 17862.1 as a chipping and grinding operation that receives up to 200 tons per day. As such, each load of green material would have to be removed within 48 hours of receipt, or the local enforcement agency may allow the material to stay on site for up to 7 days if the local enforcement agency determines that the additional time does not increase the potential for violations. This operation can not be excluded per 14 CCR 17855(5)(A) because it is not located within the permitted boundary of the landfill. If the material contains physical contaminants in excess of 1 percent or is commingled with municipal solid waste it will be regulated using the Transfer/Processing Operations and Facilities Regulatory Requirements [14 CCR 17862.1(d)].

**Question 7:** If an operator of a compostable material handling operation is currently in the Registration Tier and is moving to a lower tier at the five year review will an AB 1497 hearing be required?

**Answer 7:** No, AB 1497 only applies to revisions of full permits. Please note that regulations are being developed to give further guidance on AB 1497 hearings.

**Question 8:** 14 CCR 17855(a)(1), Excluded Activities, has three conditions. If any one of these is not correct then the site is not excluded, correct?

**Answer 8:** Yes. To qualify for an exclusion under this section, the agricultural material activity must: 1) be agricultural material derived from the agricultural site, and 2) return a similar amount of the material produced to that same agricultural site, or an agricultural site owned or leased by the owner, parent, or subsidiary of the composting activity, and 3) not sell or give away more than an incidental amount of up to 1,000 cubic yards of compost.

**Question 9:** I have a question about used mushroom compost. The regulations do not state if it can be sold as compost or mulch. If sold as compost, does a copy of pathogens tests, heavy metals, or temperature/ turn records have to accompany the sale of the product? I know that mushroom compost goes through about three pathogen kill phases while making the compost for the mushroom beds. It is a very useable product after the crop of mushrooms has been harvested.

**Answer 9:** If the used mushroom compost material is handled in such a way that it does not research 122 degrees Fahrenheit then the material is not subject to all of the Compostable Material Handling Operations and Facilities Regulatory requirements [14 CCR 17855(a)(5)(J)].

However, if the used mushroom compost does reach temperature, it is subject to regulatory requirements.

**Question 10:** Is the enforcement agency entirely responsible in determining what constitutes a research composting operation?

**Answer 10:** Yes, the enforcement agency is responsible for determining in writing if the research compost operation proposed complies with 14 CCR 17862 (a), (b) & (c). CalRecycle staff, in their role as providers of technical support and guidance, is interested in all compost research projects and would like to be informed of all enforcement agency written determinations regarding research notifications. CalRecycle staff would like to share information received about research projects with other enforcement agency jurisdictions and operators.

**Question 11:** How do the regulations affect individuals, businesses, worker co-operatives, and non-profit groups that wish to compost vegetative materials? Are they exempt from regulations as long as the volume material processed on-site at any given time is less than 100 cubic yards and the footprint of operation is less than 750 square feet.

**Answer 11:** The exclusion for small-scale activities is for any individual, business, or group as long as there is no more than 100 cubic yards and no more than 750 square feet. This is for the total amount of feedstock and compost on-site at any given time. The feedstock may consist of green material, agricultural material, food material, and vegetative food material, either alone or in combination. If the activity falls within this exclusion, then it would not need to meet any of the requirements set forth Chapter 3.1. Please note that the excluded activity would be obligated to obtain all permits, licenses, or other clearances that may be required by other regulatory agencies including, but not limited to, local health entities, and local land use authorities.

**Question 12:** Do the regulations allow individuals, businesses, worker cooperatives, and non-profit groups to transport vegetative scraps from the point of generation to the point of processing as long as the material being transported is less than 15 cubic yards at any point in time.

**Answer 12:** The regulations do not address the transportation of compostable materials.



## Sampling

**Question 1:** I have a question about pathogen testing. Since our compost is made for agriculture use in fresh vegetables we have to do additional testing of pathogens for Good Agriculture Practices or GAP. In the past we tested for E. Coli, Salmonella, Listeria Monocytogenes and E.C. O157:H7 because you need to test for Salmonella or fecal coliform. We currently test for the fecal coliform and Salmonella but also test for E. Coli, Listeria Monocytogenes and E.C. O157:H7. The problem is now with the addition in the new regulations for the testing of fecal coliform we are coming up with false positives on the fecal coliform test. We will show negative on E. Coli or a very low count, negative for Salmonella, Listeria Monocytogenes and E.C. O157:H7 but be out of count on the fecal coliform. This is only happening to one type of compost we make which is grape pomace. There is a lot of microbial activity going on in the compost which is giving us a false positive. I would like to propose use of the Comgro stick with the old testing of E. Coli, Salmonella, Listeria Monocytogenes and E.C. O157:H7. We would be negative on Salmonella, E.C. O157:H7 and Listeria Monocytogenes but give a level of 100 count of CFU (colony forming unites) on the E. Coli. The testing we do for GAP is more accurate and makes it less likely we would have a pathogen problem.

**Answer 1:** The operator must insure that the requirements in 14 CCR 17868.3(b) 1 and (c) are met. Per 14 CCR 17868.3(d), the enforcement agency has authority to approve alternative methods for demonstrating compliance with subsection 14 CCR 17868.3(b) and (c) if they provide equivalent reduction of pathogens. Relative to this particular situation the enforcement agency would be advised to require the operator to demonstrate that the proposed alternative testing would demonstrate that the require pathogen reduction has been achieved. After demonstration and approval of the alternative, as long as the operations do not change, the enforcement agency could assume that the requirements will continue to be met. The enforcement agency may wish to require the operator to periodically reaffirm that the alternative methods provide equivalent pathogen reduction.

## Odor

**Question 1:** Should Enforcement Agencies (EA) and operators respond to verbal and anonymous complaints?

**Answer 1:** Title 14, California Code of Regulations (CCR), 18302 and 18303 outlines the documentation necessary for a written complaint as well as the criteria for what an odor complaint investigation shall include. Note that CalRecycle considers any complaints received through the CalEPA complaint system or referred in writing to the EA by another agency as written complaints. The EA may investigate verbal and anonymous complaints at their own discretion. The EA may set their own procedures for handling complaints, as described in regulation and their enforcement program plan. Operators are required prepare, implement, and maintain a site-specific odor impact minimization plan (OIMP), which includes a protocol for receiving and responding to complaints, and is described in 14 CCR 17863.4 (for compostable material handling facilities and operations) or 14 CCR 17896.31 (for in-vessel digestion facilities or operations).

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**Answer 14:** Yes, OIMPs are part of the operating record of compostable material handling activities and are available to the public.

### **Regulatory Tiers**

**Question 1:** Pursuant to the exclusions in Title 14 California Code of Regulations (14 CCR Section 17896.6(a)(2), digestate that is not composted may not be given away or sold. Is digestate that has been shown to meet pathogen reduction requirements, maximum metal concentration requirements, and physical contamination limits allowed to be given away or sold?

**Answer 1:** In-vessel digested agricultural material that has been analyzed and shown to meet the requirements for metal concentration pursuant to 14 CCR 17896.59, pathogen density pursuant to 14 CCR 17896.60(b)(1), and physical contamination pursuant to 14 CCR 17896.61 can be considered compost produced from digestate and up to 1,000 cubic yards of such material may be given away or sold annually under the exemptions in 14 CCR 17896.6(a)(2).