



DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

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September 12, 2012

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



RE: Comment Letter – Compost Order

Dear Ms. Townsend:

Thank you for the opportunity to comment on the General Waste Discharge Requirements for the Discharge of Wastes at Compost Management Units (Draft Order Number DWQ-2012-XXXX). CalRecycle appreciates the workshops and stakeholder input sessions conducted by Water Board staff during this process and the opportunity to work with the Water Board on this Compost Order. Many potential issues have been resolved, thanks to the collaboration between Roger Mitchell of your staff, composting stakeholders, and CalRecycle.

CalRecycle recognizes the Water Board's need to protect groundwater as a vital resource for agriculture and domestic consumption, one likely to become even more important as the impacts of global warming progress. CalRecycle also recognizes the environmental benefits to water quality and water conservation that compost and mulch provide. Diverting organic materials from landfills to produce compost and mulch results in improved soil structure and reduced erosion, resulting in less energy-intensive irrigation and less use of synthetic nitrogen fertilizers (the number one source of groundwater contamination in California). Additionally, composting provides a cost-effective method to stabilize animal manure, which the Water Board has identified as the number two source of groundwater contamination statewide. Therefore, it is important to find solutions that are both protective of water quality and that maintain a viable composting industry in California.

While we appreciate the significant collaborative effort that has gone into drafting this Order, CalRecycle is concerned that the Order, as written, will suppress the growth of new composting facilities and may cause some existing facilities to go out of business. With current landfill tip fees being relatively low, we are concerned that composters cannot raise their rates to cover some of the costs associated with requirements in the Order without losing feedstocks to landfilling, or worse yet, to land application, illegal dumping, or less desirable outcomes. This comes at a time when California needs to greatly expand its composting infrastructure in order to meet the 75 percent source reduction, recycling and composting goal of AB 341.

Consequently, before adopting the Order, we respectfully request that the Water Board consider revisions that still provide water quality protections but that may be more attainable by the composting industry. For example, Tier 2 requirements for 10^{-6} permeability standards for operating pads could be revised to 10^{-5} or an alternative for a working surface which prevents rutting and ponding, and which is graded to

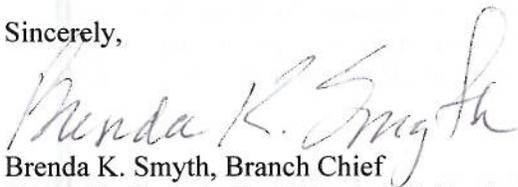


quickly remove water to lined ditches and ponds. Large composting facilities have pads of 50 acres or more and, with an average cost of more than \$50,000 per acre, 10⁶ pads may not be affordable for many operators under the current economic climate. With 127 compost facilities in California and approximately 70 of those falling into Tier 2, pad requirements alone could exceed one hundred million dollars in infrastructure upgrades. A less costly pad coupled with groundwater monitoring could provide a feasible regulatory transition that also secures groundwater quality data. As noted in the Order, the regional boards always have the authority to impose stricter conditions when warranted by site conditions, feedstocks, or other factors.

As another key example, we request that Anaerobic Digestate be included as an acceptable Tier 1 additive, which will provide anaerobic digestion facilities around the state with an acceptable means of managing their digestate. This is particularly important in the context of building new anaerobic digestion infrastructure to help meet the 75 percent goal of AB 341 and the bioenergy/biofuel goals in the Administration's recently-released Bioenergy Action Plan. Additional recommendations for revisions to the Order are included in the attachment.

Our mutual challenge is to maintain a composting infrastructure while protecting water quality. We believe that can be achieved with further collaboration on this Order. Thank you for the opportunity to express these concerns prior to finalizing the Order. If you have any questions regarding these comments, please contact Mr. Kyle Pogue of my staff at (916) 341-6246 or kyle.pogue@calrecycle.ca.gov. We appreciate your careful consideration of our concerns. We also look forward to seeing the comments of external stakeholders and working with you to address those as well.

Sincerely,



Brenda K. Smyth, Branch Chief
Statewide Technical and Analytical Services Branch, CalRecycle

cc: Charles R. Hoppin, Board Chair, State Water Resources Control Board
Caroll Mortensen, Director, CalRecycle
Scott Smithline, Assistant Director, CalRecycle
Mark Leary, Chief Deputy Director, CalRecycle
Howard Levenson, Deputy Director, CalRecycle
Kyle Pogue, Manager, CalRecycle

Attachment: CalRecycle Comments on General Waste Discharge Requirements for the Discharge of Wastes at Compost Management Units (Draft Order Number DWQ-2012-XXXX)

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Comment 1:

Set maximum hydraulic conductivity for Tier 2 working surfaces at 1×10^{-5} cm/s or provide an alternative for a less costly work surface coupled with groundwater monitoring

Issue: The justification for the need for a very capital intensive working surface of 1×10^{-6} has not been provided. Could a working surface of 1×10^{-5} be sufficient to protect water quality and therefore, not be as large of a financial burden on the composting industry? CalRecycle has estimated that a working surface of 1×10^{-6} for a moderate to large facility would cost several million dollars. For example, a facility with a daily throughput of 275 tons/day and an operating pad of 100,000 sf could cost \$500K to \$2.2MM with the range depending on how much clay is available on site. For one of California's largest facilities, it was estimated that the operating pad could cost from \$3MM-\$14MM if constructed new. Requiring a hydraulic conductivity of 1×10^{-5} for working surfaces, or the alternative of a less costly pad coupled with groundwater monitoring, would provide a significant cost reduction from the current requirement.

Recommendation: Require a hydraulic conductivity of 1×10^{-5} for working surfaces in Tier 2. E.2.a.ii.(1) (pg. 15).

All working surfaces must have a hydraulic conductivity of ~~1×10^{-6}~~ 1×10^{-5} cm/s or less, and meet one the following construction and material specifications:

Comment 2:

Anaerobic Digestate should be included as an acceptable Tier 1 additive.

Issue: Anaerobic Digestate should be treated similar to manure in Tier 1 and allowed as a 30% additive. This material has undergone processing in a digester and is often originally composed of vegetative food material which is already an acceptable feedstock under Tier 1.

Recommendation: Add Anaerobic Digestate to the list of acceptable feedstocks for Tier 1, E.1 (pg. 13).

This tier is applicable to any CMU to which the Discharger proposes to discharge, or is actively discharging, no more than 12,500 cy of feedstock at any given time, so long as the discharge meets the following additional limitations. For the purposes of this tier, the feedstocks discharged are restricted to those defined in this Order as "agricultural material", "green material", "paper material", "vegetative food material", "Anaerobic Digestate", or a combination of these feedstocks, and must only be discharged to a storage or composting area at a CMU described in an approved NOI.

Comment 3:

Municipal Solid Waste (MSW) composting is prohibited by the Order but a definition for MSW is not provided.

Issue: There is no current MSW definition included in the Order. The lack of a definition makes it unclear when a feedstock would be considered MSW based on levels of contamination. For example, food waste can sometimes be received at a compost facility containing materials such as plastics, glass, and metal utensils. Although Water Board staff have consistently stated that acceptable feedstocks containing contaminants will not be considered MSW, a definition is needed to clarify that intent. Here are two options that could be used to provide more clarity for stakeholders:

Recommendation: CalRecycle has developed 2 options for consideration.

1. Remove MSW from the “Prohibitions” section (D.1.e., pg. 12) and allow the materials specifically listed in section A.4.a (pg.1) to state what is acceptable under the Order:
~~Municipal Solid Waste, other than those wastes, additives, and amendments specified in Finding Nos. A.4.a and A.4.c of this Order;~~

or

2. Use the “Solid Waste” definition in PRC Code §40191 to define MSW, but specifically exclude the approved feedstock materials listed in section A.4.a (pg. 1) in the definition section of Attachment A.

“Solid Waste” as defined in Public Resource Code Section 40191, other than those wastes, additives, and amendments specified in Finding Nos. A.4.a and A.4.c of this Order;

Comment 4:

Acceptable feedstocks should be defined as “Source Separated.”

Issue: To provide additional guidance on what types of materials can be accepted at a compost facility under this Order, materials should be required to be “Source Separated” from the Municipal Solid Waste stream.

Recommendation: Add the phrase “Source Separated or separated at a centralized facility” to the introductory paragraph of “Feedstocks” listed in section A.4.a (pg. 1) as reflected below.

Feedstocks: *The following types of feedstocks (as defined in Attachment A), or*

Combination of feedstocks (also known as in-process or active compost) that are source separated or separated at a centralized facility may be discharged to land at a CMU, provided the Discharger maintains compliance with the requirements of this Order:

Comment 5:

The Order currently requires all facilities defined as “new” to provide a complete Notice of Intent (NOI) package to their Regional Board within 6 months of adoption.

Issue: It will take much longer than 6 months for a compost facility, especially a publicly owned facility, to develop a financial budget, receive financing, select a certified engineer, get approval from the appropriate entities, etc. The most important aspect to this issue is that the Order needs to provide guidance that compost facilities must be allowed to continue operation during the enrollment and facility upgrade process.

Recommendation: Allow additional time (6 additional months) for operators to submit the “technical report” but maintain the requirement that the NOI form and the fee be submitted within 6 months of adoption of this Order. This should allow operators adequate time to plan for the necessary facility infrastructure requirements. See below for suggested changes to B.1 (pg. 9) and Attachment C.

***New Compost Management Units.** Dischargers at new CMUs (as defined in Finding No. A.10.b of this Order) must seek enrollment under this Order, and submit to the appropriate Regional Water Board Executive Officer a ~~complete~~ Notice of Intent to Comply with the Terms of General Waste Discharge Requirements for Discharges of Waste at a Compost Management Unit (Attachment B), including the appropriate filing fee – pursuant to Cal. Code Regs. title 23 section 2200—~~and a technical report~~ including, but not limited to the information requested in Attachment C of this Order. Dischargers at new CMUs – as defined in Finding No. A.10.b.ii – must seek enrollment by submitting a NOI and filing fee under this Order within six months upon its adoption by the State Water Board. The technical report or Attachment C of this Order is required to be submitted one year after the adoption of this Order. Dischargers of new CMUs – as defined in Finding No. A.10.b.i – must seek enrollment under this Order six months prior to the anticipated receipt of materials for composting with a complete NOI package including Attachment B of this Order, filing fee, and the technical report (Attachment C), and must receive a NOA from the Regional Water Board Executive Officer prior to receiving materials for the production of compost. Any Discharger of a new CMU must enroll under this Order, or individual WDRs.*

Comment 6:

Liquid food is not clearly listed as an acceptable feedstock.

Issue: Liquid Food Material is listed as an acceptable feedstock under this Order by it being precluded from “Liquid Wastes” as a prohibited feedstock. It would be clearer to include “Liquid Food Material” as an acceptable feedstock.

Recommendation: For clarity, add “Liquid Food Material” to the acceptable feedstock list A.4.a (pg. 1)

***Feedstocks:** The following types of feedstocks (as defined in Attachment A), or*

combination of feedstocks (also known as in-process or active compost) may be discharged to land at a CMU, provided the Discharger maintains compliance with the requirements of this Order:

- i. Agricultural materials;*
- ii. Anaerobic digestate;*
- iii. Biosolids (Class EQ, A, and/or B);*
- iv. Food materials;*
- v. Green materials;*
- vi. Manure;*
- vii. Paper materials; and/or*
- viii. Vegetative food materials*
- viv. Liquid Food Material*

Comment 7:

Tier 3 language needs to include “site specific conditions.”

Issue: “Site specific conditions” that help protect water quality are not currently reflected in Tier 3 language. The current language states that only “existing containment structures and/or current management practices at the CMU are equally protective of the waters of the state, as those specified for Tier 2 CMUs.”

Recommendation: The phrase, “Site Specific Conditions,” should be added to the list because it directly factors into a site being “equally protective.” For example, if a site sits on top of solid clay and 150 feet from groundwater, those factors will directly apply to its water protection. E.3 (pg. 17)

***Tier 3:** This tier is applicable to any CMU for which the Discharger proposes to discharge or is actively discharging either (1) Tier 1 feedstocks (limited to “agricultural material”, “green material”, “paper material”, “vegetative food material”, or any combination of these feedstocks) in volumes greater than 12,500 cy; or (2) any feedstocks or combination of feedstocks specified in Finding No. A.4.a of this Order in any volume, to any storage or composting area at a CMU, and advocating that: (1) existing containment structures, site specific conditions, and/or current management practices at the CMU are equally protective of the waters of the state, as those specified for Tier 2 CMUs (Design Specifications, section E.2 of this Order); and (2) current management practices at the CMU minimize the potential emergence of leachate from any feedstock, additive, amendment, or compost (active or stabilized) pile.*

Comment 8:

Clarify that finished compost will not be included in the 12,500 CY volume limit for Tier 1.

Issue: It is unclear that finished compost is not included in the 12,500 CY limit for Tier 1 feedstocks.

Recommendation: Add “stabilized compost” to the exclusions within the definition of “feedstocks.” Attachment A (pg. iv)

“**feedstock**” refers to those materials specified in Finding No. A.4.a of the Order used in the production of compost. Feedstocks shall not be considered as either additives, ~~or~~ amendments, or stabilized compost.

Comment 9:

Tier 3 language should be amended to remove the requirement for leachate testing.

Issue: Tier 3 provides the compost industry with the option to provide actual water quality test data to the Water Board through groundwater monitoring wells. The compost industry must in turn take water protection very seriously by selecting this tier because they will be certifying under the penalty of perjury that their facility will not contribute to, cause, or threaten to cause a condition of contamination, pollution or nuisance. However, the Tier 3 requirement that a compost facility must document, notify the Regional Water Board, and collect and analyze the leachate is duplicative and an unnecessary cost when groundwater monitoring will provide water quality data.

Recommendation: Remove the requirement to test all leachate seeping from compost piles. MRP B.3.b (pg. 5).

~~**Leachate Monitoring** Dischargers enrolled under the Order who are implementing the requirements for Tier 3 CMUs, and who observe leachate at any time seeping from any feedstock, additive, amendment, or compost (active or stabilized) pile at the CMU must:~~

- ~~i. Notify the appropriate Regional Water Board pursuant to Reporting Requirements, section D.3.b of this MRP;~~
- ~~ii. To the greatest extent feasible:~~
 - ~~(1) Make an accurate determination of the field parameters specified in Monitoring Requirements, section B.1.h, Table No. 1 of this MRP; and~~
 - ~~(2) Collect and analyze samples for the analytes specified in Monitoring Requirements, section B.1.h, Table No. 1 of this MRP and in accordance with Standard Monitoring Provisions, section B.1 of this MRP;~~
- ~~iii. Return the leachate to either the source pile, or otherwise managed as approved in an NOI as appropriate under the requirements of the Order and this MRP; and~~
- ~~iv. Determine and report, in accordance with Reporting Requirements sections I.6 and I.9 of the Order, the cause of the leachate seep; and the measures taken to successfully mitigate, and minimize leachate seeps from occurring in the future. Dischargers may be subject to modification, revocation and reissuance, or termination under this Order, pursuant to Finding No. A.17 of the Order.~~

Comment 10:

Manure should be an acceptable feedstock for Tier 1

Issue: This Order will impose a significant capital expense to facilities that are processing materials that have a low economic value such as manure. Many of California’s smaller compost facilities are composting manure which stabilizes the material and results in a product that can significantly reduce the potential for water quality impacts compared to land application alternatives. If these facilities cannot afford to meet any of the compliance options, they will be forced to close their operation and a valuable component of California’s composting infrastructure will be lost. Further, if manure is not composted, the non-stabilized waste is generally land applied which can have significantly greater water

quality impacts. Additionally, if there are site specific conditions of concern, the Regional Water Boards can increase water quality protection requirements.

Recommendation:

Allow manure as an acceptable feedstock in Tier 1. E.1 (pg. 13)

***Tier 1:** This tier is applicable to any CMU to which the Discharger proposes to discharge, or is actively discharging, no more than 12,500 cy of feedstock at any given time, so long as the discharge meets the following additional limitations. For the purposes of this tier, the feedstocks discharged are restricted to those defined in this Order as “agricultural material”, “manure”, “green material”, “paper material”, “vegetative food material”, or a combination of these feedstocks, and must only be discharged to a storage or composting area at a CMU described in an approved NOI. If at any time, either the volume or types of feedstocks discharged at a Tier 1 CMU are exceeded, the operation is no longer eligible for enrollment as a Tier 1 CMU, and the Discharger must submit a revised NOI to the appropriate Regional Water Board, within 30 days of the triggering event, proposing reclassification to either Tier 2 or Tier 3, as appropriate, or if not, then within 90 days of the triggering event, submitting a Report of Waste Discharge for regulating the discharge under individual WDRs.*

Comment 11:

Inconsistent language regarding Regional Water Boards discretion.

Issue: Language within the Order is inconsistent with regards to whether or not a Regional Water Board has the ability to require measures that are less stringent than what is listed in the Order. In A.16 (pg. 6) of the Order, the language states, “Nothing in this Order is intended to require coverage under this Order if a Regional Water Board, through its Executive Officer, determines that a project could not affect the quality of the waters of the State in its region. Each Regional Water Board may regulate compost management units or other composting operations in any appropriate manner. This Order is one option available to the Regional Boards to regulate composting operations.” The language in B.2 (pg. 9) states, “Dischargers of CMUs subject to individual WDRs issued by the Regional Water Boards are not required to enroll under this Order if the requirements of the individual WDRs are more protective than those prescribed in this Order.”

Recommendation: Revise the language in B.2 (pg. 9) to make it consistent with the language in A.16 (pg. 6) as follows:

Existing Permitted Compost Management Units. At any time, the Discharger of an existing permitted CMU, as defined in Finding No. A.10.a, may seek rescission of individual WDRs, and seek enrollment and authorization to discharge under this Order by submitting to the appropriate Regional Water Board a complete NOI (Attachment B). The NOI must be filed with an appropriate filing fee – pursuant to Cal. Code Regs. title 23 section 2200 –and a technical report including, but not limited to the information

requested in Attachment C of this Order. ~~Dischargers of CMUs subject to individual WDRs issued by the Regional Water Boards are not required to enroll under this Order if the requirements of the individual WDRs are more protective than those prescribed in this Order.~~

Comment 12:

Spontaneous Combustion

Issue: Spontaneous combustion at a compost facility is listed as a prohibited activity which means that if a facility has a fire, which can occur, their coverage under this Order could be revoked. A fire at a compost facility should not pose a threat to water quality because the fires are generally not put out with water. The material is generally separated from the burning pile so that the fire runs out of fuel.

Recommendation: Remove the language in D.2.f (pg. 12) that references “spontaneous combustion”.

~~Discharges of feedstocks, additives, amendments, or compost (active or stabilized) that cause spontaneous combustion;~~