



July 8, 2019

SUBMITTAL VIA EMAIL TO: [RCave@baaqmd.gov](mailto:RCave@baaqmd.gov) and [MNishiki@baaqmd.gov](mailto:MNishiki@baaqmd.gov)

Mr. Robert Cave and Ms. Misha Nishiki, BAAQMD  
375 Beale Street, Suite 600  
San Francisco, CA 94105

SUBJECT: COMMENT LETTER ON THE PROPOSED BAAQMD RULE 13-2, RULE 13-2 WORKSHOP REPORT, AND THE CONCEPT PAPER FOR RULE 13-4

Dear Mr. Cave and Ms. Nishiki:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Bay Area Air Quality Management District's (BAAQMD) proposed Regulation 13, Rule 2 (Rule 13-2) and the Rule 13-4 Concept Paper. BACWA is a joint powers agency whose members own and operate publicly-owned wastewater treatment works (POTWs) that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. We have an active committee structure with our Air Issues and Regulations (BACWA AIR) Committee charged with working cooperatively with Regulators to address air quality and climate change issues.

As you would expect from dedicated environmental stewards, not only do BACWA members provide reliable wastewater treatment to protect public health and the environment, they strive to perform better than the required air and solids management regulations, as well as maximize the beneficial use of products (including biogas). With this in mind, we also recognize and support the State in pursuing reductions in methane emissions under Senate Bill 1383 (SB 1383). To accomplish these reductions, one pathway being considered under SB 1383 is the diversion of organic waste from landfills to effectively remove the source of methane (resulting from biodegradation). Composting and anaerobic digestion are recognized as viable means for diversion of organic waste while successfully reducing methane.

Most POTWs (and BACWA members) in the SF Bay use anaerobic digestion for stabilization of sewage sludge. One of BACWA AIR Committee's members operates a compost facility, and others are considering compost as a future option. State agencies have made it clear they are looking to POTWs to use existing infrastructure to accept and recycle diverted organic waste to achieve the SB 1383 mandates. We also understand that the BAAQMD would like to see existing facilities continue to operate and maintain low methane emissions, odors, and volatile organic compounds (VOCs) given the expected increase in pre-processed organic waste to be received by these facilities.

Because the wastewater sector operates both composting and anaerobic digestion facilities within

BAAQMD's nine-county jurisdiction, we are providing specific comments on the contents of the proposed Rule 13-2 (organic material handling and composting operations), the associated Workshop Report, as well as the Concept Paper for Rule 13-4 (sewage treatment and anaerobic digestion), and their potential implications to POTWs for your consideration.

Specific comments on Proposed Rule 13-2 and the Workshop Report are as follows:

- ***Regarding 13-2-102 Applicability; 13-2-103 Exemption, Backyard and Community Composting; and 13-2-104 Limited Exemption, Specific Composting Operations:***  
The language used in the proposed Rule appears to pertain to aerated static pile or aerated windrow composting operations. One of our BACWA members operates an in-vessel composting operation (i.e., enclosed in a building where the air is exhausted to a biofilter that has been designed to manage emissions and odors). Because an in-vessel operation provides proper collection and treatment of air emissions, the requirements drafted for outdoor composting operations (i.e., aerated static piles and aerated windrow operations) are not applicable and are unnecessarily burdensome. **BACWA recommends including an exemption specifically for in-vessel composting operations and adding the following definition:**  
In-vessel composting: An enclosed process such as a drum, silo, concrete-lined trench, building or similar structure/equipment where the environmental conditions (e.g., temperature and moisture) can be closely controlled and there is a mechanism to turn or agitate the material for proper aeration.
- ***Regarding 13-2-207 Definition of Biosolids:***  
The definition of biosolids is incomplete and inaccurate as there are specific standards that must be satisfied in order for treated sewage sludge to be referred to as biosolids. **BACWA recommends the definition be modified as follows -**  
“Biosolids: Solid, semi-solid, or liquid residue resulting from the treatment of domestic sewage sludge that meets the EPA pollutant and pathogen requirements for land application and surface disposal.”
- ***Regarding 13-2-302 Storage and Stockpiling Requirements:***
  - Section 302.2 Green Material – Current BAAQMD permits require that green material be processed within five (5) operating days of receipt, which is then reduced to three (3) operating days when a facility receives two (2) or more “Public Nuisance” violations within a 12-month period. The proposed Rule, however, states green material must be processed within three (3) days. **We recommend maintaining the current permit requirement of processing green material within five (5) operating days to avoid disrupting successfully operating compost facilities and imposing unnecessary costs to modify operations.**
  - Section 302.3 Putrescible Material– The definition of putrescible material includes biosolids and therefore subjects biosolids to the emissions control requirements of this section.
    - The provisions of this section are incompatible with the biosolids drying process. BAAQMD staff confirmed this is an unintended consequence of the proposed Rule as written. Per staff suggestion, we are including this item in our comments for consideration by BAAQMD. **We recommend**

**revising the proposed Rule to include a limited exemption for the biosolids drying process/operations.**

- The requirements for storage may be unattainable by existing successfully operating compost facilities without major facility alterations and infrastructure changes. For example, the City of Santa Rosa stores Class B biosolids from its wastewater treatment plant for several months at a time, as biosolids cannot be land-applied to water-saturated ground or during periods of precipitation. This necessitates storage of biosolids during the rainy season. Furthermore, there are already requirements in the State Water Resources Control Board's Water Quality Order No. 2004-012-DWQ (State General Order for Discharge of Biosolids to Land) stating that biosolids that are to be land applied must have a moisture content greater than 50 percent in order to prevent any potential for increased incidence of human exposure to aerosols and wind-blown particulate. The requirements in the proposed Rule would cause POTWs located within the Air District to seek alternate means of biosolids disposal, such as trucking out of the Air District or even out of the state, which would also result in an increase in greenhouse gas emissions due to the additional transport.
- 302.5 Pile Dimensions – Dimensions selected for compost piles are not supported by data or further justification. **Please elaborate on the basis of these dimensions, as they appear arbitrary and will result in major process changes at successfully operating compost facilities that could result in their closure.** For example, the City of Santa Rosa's current operation has space limitations and the selected dimensions are unattainable.
- **Regarding 13-2-303 Active Phase Composting Requirements:**
  - 303.3.1 Moisture Content (13-2-604 Determination of Adequately Wetted) – The draft Rule only approves the squeeze ball test and alternate determinations of moisture content must be approved by APCO. However, Santa Rosa has an active misting system and uses an on-site laboratory for the moisture percent analysis of their compost piles with a criterion of 60 percent moisture content on the front end and no less than 40 percent moisture content throughout the rest of the compost pile. **We recommend continuing to review and accept alternate test methods to determine proper moisture content of the wetted compost piles.**
  - 303.3.3 Positive Aeration – This section of the draft Rule requires that the "...exposed surface of all active phase composting piles [be] covered with at least six (6) inches of finished compost cover or overs within three (3) hours of initial pile formation and within three (3) hours after any turning of the active phase compost pile..." For an in-vessel composting operation, piles may be turned daily and covering the piles within three hours after each turning event is unnecessary as air emissions are collected and filtered through a biofilter before being released to atmosphere. **We recommend revising the draft Rule to exempt in-vessel (indoor) facilities.**
- **Regarding 13-2-304 Curing Phase Composting Requirements:**
  - 304.2 – We recommend removing the pile dimension requirements per the

arguments provided in comments pertaining to 302.5.

- **Regarding Section II.A.3 of the Workshop Report:**

- Section II.A.3 is dedicated to and titled Anaerobic Digestion, yet a definition is not provided in the proposed Rule 13-2. **We recommend the following definition be added to the proposed Rule 13-2 since there are references to anaerobic digestion in both the proposed Rule and Workshop Report – Anaerobic Digestion: Biological process in which microorganisms break down and stabilize biodegradable material in the absence of oxygen.**
- Additionally, it was stated during the June 13<sup>th</sup> workshop that anaerobic digestion may be considered within the "handling" definition of the proposed Rule 13-2. We disagree with including anaerobic digestion in the handling definition, as handling refers to the pre-processing and transport of material, versus the stabilization of the material. Both anaerobic digestion and composting are processes used to stabilize material. **As is done with composting, we recommend explicitly excluding anaerobic digestion from the definition of handling and applying the following revisions to the definition of handling – “Handling: Pre-processing and transferring and manipulating of organic material. Handling Pre-processing can include, but is not limited to screening, chipping and grinding, tipping, sorting, and debagging. Handling does not include active phase- or curing phase composting and anaerobic digestion.”**
- The second sentence of the first paragraph in this section states that biogas is the main product of anaerobic digestion, which is inaccurate. Biogas is one of two products of anaerobic digestion that can be beneficially used, the other product being biosolids. **We recommend revising this statement to say, “One of the main products of anaerobic digestion is biogas,…” to be accurate.**

- **Regarding Section III.1 of the Workshop Report:**

The first sentence of this section states that a “detailed emissions characterization has not been completed for organic material handling or composting.” Additionally, the first sentence of the second paragraph (Page 11) states, “Emissions from organic handling operations are not particularly well understood, nor have emissions factors been well established.” **We agree and strongly recommend that an emissions characterization be completed prior to adoption of this rule and prior to the final draft of Rule 13-2 being distributed for public review, to serve as a basis for rule development.**

Specific comments related to the Concept Paper for Rule 13-4 are as follows:

- The second sentence of the first paragraph in Section 1 (Background) states that biogas is the main product of anaerobic digestion, which is an inaccurate statement (same comment provided above). Biogas is one of two products of anaerobic digestion that can be beneficially used, the other product being biosolids. **We recommend revising the statement on the first page of the Concept Paper to state, “One of the main products of anaerobic digestion is biogas,…”**
- BACWA confirms that anaerobic digestion at POTWs is predominantly wet, not dry.
- While the rule is being developed with the intent to “minimize” emissions of methane, GHGs, and VOCs from anaerobic digesters and sewage treatment plants, the efforts

BACWA Comments on Proposed Rule 13-2, Workshop Report, & Rule 13-4 Concept Paper

already undertake in support of SB 1383 targeting diversion of organic waste to anaerobic digesters at POTWs is to achieve exactly that because anaerobic digesters are so effective at capturing biogas for beneficial use.

- CalRecycle’s June 18<sup>th</sup> workshop provided a status update on regulatory development under SB 1383. While BAAQMD staff stated these regulations would be adopted in 2019, CalRecycle stated these regulations will be adopted by January 18, 2020, they will become effective beginning January 1, 2022 (when the state can begin enforcement on jurisdictions), and jurisdictions can begin enforcement January 1, 2024.
- Please provide BACWA the list of 70 sewage treatment facilities referenced in the Rule 13-4 Concept Paper. BACWA can review the list and confirm the facilities.

General comments to address in each document:

- Wastewater is one word, not “waste water.” **We recommend replacing references to “waste water” with “wastewater.”**
- It was stated during the June 13<sup>th</sup> workshop that anaerobic digestion at POTWs is not fully developed – this statement is not true. Anaerobic digestion is the most used treatment process for sewage sludge stabilization in California, treating over 94 percent of domestic solids. In fact, the SWRCB and CalRecycle acknowledged this and it is the reason the SWRCB funded a study to assess the state’s co-digestion capacity at existing POTW anaerobic digesters for accepting diverted food waste for co-digestion. The analysis is in its final stages (review is underway by state agencies) and is anticipated to be complete by the end of 2019.

Thank you for the opportunity to comment on the proposed Rule 13-2, Rule 13-2 Workshop Report, and the Concept Paper of development of Rule 13-4. We very much appreciate the willingness of the BAAQMD staff to work collaboratively with BACWA in the development of the Rules supporting Regulation 13. BACWA supports BAAQMD’s efforts to protect the Bay Area’s air quality, and asks BAAQMD to carefully address BACWA’s concerns.

We would be happy to discuss any questions regarding these comments. Nohemy Revilla and Randy Schmidt, BACWA AIR Committee Co-Chairs, can be reached at [NRevilla@sfwater.org](mailto:NRevilla@sfwater.org) and [RSchmidt@centralsan.org](mailto:RSchmidt@centralsan.org), respectively.

Sincerely,



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BACWA Executive Director

Cc: BACWA Executive Board  
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