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CleanWorld has prepared these written comments in response to CalRecycle's regulation text, specifically Chapter 3.2., titled *In-Vessel Digestion Operations and Facilities Regulatory Requirements*.

CleanWorld sincerely thanks CalRecycle for their continued efforts and leadership in establishing a standardized set of regulations for anaerobic digestion operations. The agency has been responsive to stakeholder feedback, and we hope to continue a healthy and productive dialogue on this matter.

We have identified several areas that still require attention and further refinement so as to prevent any unnecessary and undue burden on anaerobic digestion operations. These comments are included below.

Should you have any questions regarding our comments, please contact us. Thank you for your time.

Sincerely,

Tracy Saville  
VP, Marketing & Public Affairs

## Comments

### **1. Section 17896.2**

Section 17896.2, titled, *Definitions*, currently defines “limited volume in-vessel digestion operation” and “medium volume in-vessel digestion facility” as follows:

**“Limited Volume In-vessel Digestion Operation”** means an operation that receives less than an average of 15 tons (or 60 cubic yards) of solid waste per operating day for digestion in an in-vessel digester. The amount of solid waste the operation receives shall not exceed 105 tons (or 420 cubic yards) per week or the solid waste quantity limitations of the general design of the operations (whichever is less).

**“Medium Volume In-vessel Digestion Facility”** means a facility that receives an average of 15 tons (or 60 cubic yards) or more but less than 100 tons of solid waste per operating day for digestion in an in-vessel digester. The amount of solid waste the operation receives shall be less than 700 tons (or 2,800 cubic yards) per week or the solid waste quantity limitations of the general design of the operation.

These current definitions of the maximum tonnage these in-vessel digesters are allowed to “receive” severely inhibits the flexibility required in digester operations. In practice, the amount of waste a digester is fed fluctuates on a day-to-day, week-to-week basis. If a digester is designed to accept an average of 15 tons of waste per day, on some days it will accept 10 tons, or perhaps 5; on other days it will accept 20 tons, 30 tons, even more.

These fluctuations can be attributed to several factors:

First, the amount of waste that waste hauling companies bring to our facility fluctuates daily. Sometimes they will deliver 10 tons, at other times they may deliver 20 tons. The amount of waste people in general produce fluctuates; it is never the same exact amount. It is imperative that we maintain this kind of flexibility with our waste hauling partners. If they bring us 20 tons of waste, it is unrealistic to expect them to take 5 tons somewhere else because we have hit our weekly limit. We have to be flexible and accept all of it, otherwise they will no longer desire to bring waste to our facility because it becomes too much of a hassle.

Second, we receive high quality but low density waste streams, such as grease trap waste. When this waste is brought to us, it is often composed of more water than actual grease (water is used to flush out the waste from the traps). Because of this, we can easily process an extremely high volume, which at times could push us over the imposed weekly limit. As a result, we would be needlessly restricted from accepting these high quality waste streams that are very valuable for renewable

energy production. The waste streams we can then target will only become smaller, making operations and economic feasibility more challenging.

Third, the digester is a living organism. It cannot always digest all of the waste brought to the facility on a day-to-day, week-to-week basis. It cannot be treated as simple machinery that performs exactly the same every time it is used. As a result, on some days we feed our digester less than it was designed for, on other days we feed it substantially more.

Additionally, digester operations, as it relates to maintenance and repairs, sometimes require us to stop feeding the digester for a number of days. Normally, if we do not feed for a few days, we are able to catch up by feeding the digester an extra amount of waste in the days or weeks that follow. However, these definitions prevent our ability to do just that by setting a maximum a digester can be fed on a daily and weekly basis.

We understand that CalRecycle is trying to allow flexibility on a per week basis with the amount of waste a digester processes, however, our operations require flexibility over a longer period of time, beyond the per week limit. If during Week 1 we feed our 105-ton-per-week digester 90 tons, we cannot, by these regulations, feed it 120 tons the next week in order to catch up on the 15 tons we did not feed during the previous week.

Scheduled maintenance, cleaning, and other operational procedures require us to halt operations for a period of time, usually several days. It can take several days or even a week to catch up on feeding the digester the waste we did not feed during that down time. If during Week 1 we halt operations Days 1, 2, and 3, and it takes more time than Days 4, 5, 6, and 7 and to catch up on the waste we did not process Days 1, 2, 3 (thus taking us into Week 2), we cannot, by these regulations, catch up on that waste during Week 1 beyond Day 7 of that week.

These restrictions result in an unnecessary absolute loss of revenue for our company and impose unreasonable expectations on our waste hauling partners to deliver to our facilities the exact same amount of waste every time. This will have a significant impact on the economic feasibility of the project by: 1) causing us to not accept any excess waste we receive on a given a day the moment we reach our weekly limit; 2) restricting the different types of waste streams we can target, and; 3) limiting our ability to provide waste haulers and other companies with an easy, flexible, and sustainable method for managing and recycling waste.

Furthermore, this restriction harms the State of California. This will result in the unnecessary landfilling of organic waste, which does not help the state achieve its 75 percent diversion mandate, and will harm efforts to comply with the commercial organic waste recycling mandate that passed earlier this year. When this waste becomes landfilled, the state loses out on renewable energy production, which once again only hurts state efforts to invest in and produce advanced renewable

fuels. Additionally, once landfilled, that waste emits greenhouse gases, slowing state efforts to reduce GHG emissions to 1990 levels by 2020.

#### Our Proposal

CleanWorld proposes that the definition's language be changed to reflect a 30-day average requirement. For example, a limited volume in-vessel digester should be required to maintain a 30-day average of 15 tons. At any given time, when reviewing the previous 30 days of waste fed to the digester, it should still average out to 15 tons. This provides our operations flexibility. If on Week 1 we feed the digester 90 tons, we can then feed it 120 tons the following day.

This same flexibility should be given to medium volume in-vessel digesters. If a medium volume digester handles on average 90 tons per day, it should be given the flexibility to feed over 100 tons on any given week, as long as the waste processed averages out to less than 100 tons during any 30-day period.

We feel that adding a clause about giving the LEA the flexibility to provide exemptions for digester operations on a case-by-case basis is not an adequate solution to this concern. This will not allow CleanWorld to adequately predict digester operations, as each LEA will have differing views, perspectives and ideas on what should and should not be allowed to occur at a digester operation. Some LEAs are strict while others are more relaxed. We cannot adequately predict how California's LEAs will respond to being given this power to exempt certain digester operations on this matter. As a result, it will make matters more difficult for CleanWorld and other anaerobic digestion companies to site additional facilities.

Additionally, in the above definitions, digester operations are limited on "receiving" a certain amount of waste. However, the amount we "receive" and the amount we "feed" are different. In many cases, our facilities "receive" packaged waste that is usually in excess of what we would "feed" on any given day. Thus, we store this packaged waste in a secure holding area until time of processing. The odors and other vectors in these wastes are fully contained by their packaging. Having the ability to receive packaged waste in excess of what we feed on a daily basis gives our operations flexibility. This enables us to provide our customers an easy and flexible service; otherwise, we would be arbitrarily required by these regulations to turn away any packaged waste in excess of our weekly limit, severely undermining the value of the service we provide.

#### Our Proposal

CleanWorld proposes that the wording be changed from "receives" to "feeds".

## **2. Section 17896.61 Physical Contamination Limits**

Section 17896.61 specifies that “compost produced at an in-vessel digestion facility shall not contain more than 0.1% by weight of physical contaminants greater than 4 millimeters.”

CleanWorld believes this to be an overly burdensome requirement that has no concrete form of objective measurement. Even at greater than 4 millimeters, it will be difficult to fully discern what a contaminant is and what is not. It is to our understanding that the only form of “measurement” is a lab technician handpicking through the compost sample and selecting what appears to them to be a contaminant. This is not an objective form of measurement, and leaves significant room for subjective decision-making on what they personally believe looks like a contaminant.

### Our Proposal

CleanWorld proposes that the contamination limit be adjusted slightly to allow a higher level of contamination, especially to account for any fluctuations in the subjective measurement of the contaminants. We do not have a specific number to suggest.

## **3. Sections 17896.12 and 17896.13**

Sections 17896.12 and 17896.13, titled *Medium In-vessel Digestion Facilities* and *Large Volume In-vessel Digestion Facilities* respectively, specify that “these facilities shall be inspected monthly by the EA in accordance with PRC section 43218”.

CleanWorld feels that once an anaerobic digester operation is commissioned and has shown successful and consistent compliance with regulations during its first 12 months of inspections, it should have the option of being approved by the EA for a decrease in the rate of inspection of once every three months. Furthermore, after the first 24 months of operation, it should have the option of being approved by the EA for a decrease in the rate of inspection of once per calendar year.

We feel that monthly inspections of digester operations, especially after the first 12 months, becomes superfluous and inefficient, especially if the operation has proven consistent compliance with regulations.

### Our Proposal

CleanWorld proposes that the language be amended to more closely reflect Section 17896.9, titled *Dairy In-vessel Digestion Operations*.