

Meeting #8 Agenda (October 17, 12-2pm): Facility Siting, Zoning, Permitting & Infrastructure

- I. Welcome and Overview of Agenda (12:00-12:05)
- II. Pierce Louis, CEO, Dirt Hugger + Q&A (12:05-12:20)
- III. Tim O’Neill, President, Engineered Compost Systems + Q&A (12:20-12:35)
- IV. Steve Van Slyke, Compliance Director, Puget Sound Clean Air Agency + Q&A (12:35-12:50)
- V. Policy Feedback: Facility Siting, Zoning, Permitting & Infrastructure (12:50-1:55)
 - a. Many policies have carried over from other experts and from the last Organics workgroup in 2021.
 - b. KPIs, Air Emissions Source Testing, Odor Assessment Protocols
 - i. Change permitting approach from a focus on composting technology/methods to technology-agnostic, science-based, and readily measurable compost process **key performance indicators (KPIs)**.
 - ii. Correct KPIs align with efficient facility operations and quality control, and do not add excessive data collection or busy work.
 - iii. Establish a tiered relationship between default VOC emission factors (EFs) and compost process KPIs.
 - iv. Only require **air emissions source testing** for facilities above: facilities’ size X their default EF exceed regulatory thresholds (i.e. Title V).
 1. The standard SCAQMD 25.3 source test method is costly (>\$60K) and provides a tiny snapshot of highly variable process. Much less expensive methods have been proposed and need to be further developed.
 - v. Require standardized **odor assessment protocols** (surface sampling, odor panel, dispersion modelling) when responding to persistent problems.

Input: KPIs, Air Emissions Source Testing, Odor Assessment Protocols

- Joanna E.: Interested in concept of moving towards KPIs but concerned whether it would align with existing legal and regulatory framework. When Ecology issues a notice of construction permit, that does require the best of available control technology. Need to explore it a bit more to see whether those two approaches would be aligned or not.
- Steve VS.: On KPIs, understand the science, but want to ask the question in terms of air emissions or air permitting, is it possible to put these KPIs into solid waste rules or requirements for all composters. If this is an important thing for the industry for composting and lower emissions, is it possible to add that to the 173/350 rules to make it part of the ongoing requirements for composters under solid waste. And the second thing, the last vote there was talk about voters coming up with protocols for evaluating notice. We’ve been part of studies for different types of

things. The challenge is no matter how you do your methodology, your study or modeling, if somebody says they're being impacted and it's real and verified, no model or study on site is going to talk them out of how they feel. You can try to convince them that it's not as bad as they said it is, but people's self-perception is their experience and if people are being impacted and they're upset about it, that type of technical approach isn't going to talk them out of it.

- Heather T.: In favor of doing something like this. Feels like air permits were originally designed for something like a factory or a more discreet source as opposed to something like this. We have a system that was designed years ago for one type of pollutant. And now we have a compass industry that has come up in the last number of decades that is being challenged by having to use this system. For Steve and Joanna: Yes, it's not what the EPA framework is right now. What would it take, and it may take a couple of years or more, to work with the EPA to come up with a different approach for this other type of system. It may not just be compass facilities that are challenged by this approach and then also not have it be a one-time attempt, but actually have it be like in NPDES permits so that they are getting a new update every few years or so to go through a public process as well as a technical process. Also understand what you're saying about neighbors, but from what I've observed, this seems like the neighbors are going to be upset no matter what type of permit or permitting approach is taken.
 - Steve VS.: In regard to a totally different permitting approach, I think I'd be looking for why that's in the general public interest. There were comments about the difficulty in siting these facilities, but siting and getting the permits for the Bright wastewater treatment plan wasn't an easy thing either and that's a pretty mature industry. We'd be looking at something different – is that protective of public health and air quality impacts. We can keep talking about this. In regard to owners and people aren't going to like it, there's no place for an air agency to tell people to get over it because that's what it is. We have to ask the question if something can be done to prevent it from happening in the first place. If you wanted to alter regulations and statutes that change the landscape for getting to reopen permits and renew technology for the NOPC program, there are a lot of industries that are relied on the structure for the NOPC program as it is today and like it.
 - Heather T.: Meant only for the composting industry and not overall the whole program.
 - Joanna E.: The legislature providing the funding to conduct compost study and our work with WSU and other local air agencies to come up with more state specific emission factors that will help address some of the concerns for facilities and Washington, and address some of the concerns and policy language this group is trying to address here. We'll look at specific emission factors and control efficiencies to help build a more consistent approach to permitting among Ecology and local air agencies. If the facilities undergo a modification, they will need another permit. Modification could include upgrading their technology and it's not like a one and done process. There's a kind of mechanism for updating the permit to address changes in technology.

c. Operator Training Requirements and Certifications

- i. Increase manager and operator training requirements and certifications (use WWTP industry as a model).

- ii. Require facilities to have a larger number (X?) of trained operators that have successfully completed either WORC (COTC) or CREF (CFOT) course, or similar, in proportion to facility throughput.
- iii. Support Washington Organic Recycling Council (WORC), Compost Research & Education Foundation (CREF), and others in developing a more robust online training curriculum to provide CEU's and require annual CEUs for operators at compost facilities
- iv. Develop professional trainings for regulatory agencies that uses compost process science to teach the relationships between KPI's and environmental impacts.

Input: Operator Trainings and Education

- Heather T.: Toured a compost facility this summer and brought up this topic with the staff there. They thought it sounded good. I don't think it'll be a negative idea to staff at facilities. It seems like something that'll be a very worthwhile thing. Some cost but a lot of benefit.
 - Jay B.: That was my staff. We have staff that are interested in composting and learning new things. It's just a matter of executing who manages the process and the training. There were a couple webinars and there are some good resources from past trainings. I think it's a good idea.
 - Pierce L.: Agree with Jay. We send 3-4 operators there every year. The more access points there are is better. A better educated industry is going to help. Think the benefits outweigh the costs.
- Kate K.: Not controversial, but logistically challenging for these organizations to provide CEUs given that it hasn't been a requirement thus far. I know being involved with CREF, I know both organizations want to reach both operators and regulators. It takes everyone in the industry to be knowledgeable to have successful programs so it's really trying to figure out how to reach the entire industry through various trainings. What are the current requirements in Washington state? Know that every facility needs have a trained operator on-site, but would like to know more. If there's going to be anything put into legislation, like CEUs must be required, if there's something to give lead time and funding for organizations to get up to speed, that would be helpful. If there are specific trainings that anyone wants to see, reach out to me.
 - Chery S.: WAC 173-350-220(6) has a specific compost regulation. It is relatively vague. It does say "appropriately trained" but looking for the exact language. It is appropriately vague to put them in WAC. The WAC reflects current statute. Nothing that restricts us from requiring additional training in statute or WAC. I don't know that a statute has to be updated for this. It could go into WAC because of the relatively vague nature.
 - (A) Facility supervisors responsible for daily operation must receive training, or be able to document prior training, in the basics of composting within the first year of supervising the facility. Training must consist of classroom and hands-on course work and conclude with a certificate of completion that must be kept on-site at all times. Appropriate compost training can be obtained through

organizations such as the Washington organic recycling council, the Solid Waste Association of North America, the U.S. Composting Council, or other training as approved by the jurisdictional health department;

d. Statewide Permitting and AD

i. Unified state-wide permitting

1. Add a compost air permit specialist position at D.O.E. to support all permitting agencies
2. Add capacity to permit coordination function and/or stream-line process
3. Create metrics or model permit to create more consistency

ii. Address 30% food threshold for Dairy Anaerobic Digester facilities

iii. Create new permit programs for AD for food waste anaerobic digesters, vermiculture and other methods

iv. Address yield issues (or residual) in organic waste management facilities

v. Change the air permitting structure from a notice of construction to another permitting structure (for organics at least).

For example, a general permit that is based on approval of facility design and operations plan to achieve specific KPIs. Alternately, an option for permits with a renewal requirement could be less prescriptive.

Input: Statewide Permitting and AD

- Travis D.: Could you clarify "address" related to the 30%?
 - Chery S.: We do have permitting pathways for Ads. We have a solid waste permit for a dairy digest. If a facility does not want a solid waste handling permit, then they are restricted to 30% pre-consumer food waste so it's not to create an unfair, unlevel playing field. For example, compost facilities that have to get a solid waste handling permit to manage post-consumer food waste and other materials. Part of it has to do with permitting and whether they're an exempt facility or more they need to get a permit. There is some science behind the 30% food waste when it's associated with a dairy digester. There are extenuating circumstances when a digester wants to receive carbon credits or the maximum renewable energy credits combining food waste with dairy manure, or reduces your carbon credits in some mysterious way. We have yet to address that. We have a pathway to permit digesters and the 30% has primarily to do with maintaining an exemption for ADs.
 - Travis D.: Thank you. Was curious about the outcome of the 30% goal.
 - Mary H.: WAC 173-350-250 is specific to anaerobic digesters. Table 250-A covers feedstocks.
- Steve VS.: With respect to digester question, the air permit issue goes two parts. You need to clean up the gas – what are you going to do with the gas? It really depends on what you're going to do with the gas you produce. It's a smaller air emission footprint if you're trying to produce

renewable gas to go into a pipeline, but if you're going to burn it on-site to generate electricity and you got more emissions from that. It isn't the digester itself, it's what you do with the gas and the quality of the gas that becomes the air permit question.

- Paul J.: Wanted some clarity on permitting question in general. It looks like it has a lot to do with air quality and things like that. But Heather made a comment about streamlining other permits in the entire permitting process. I'm curious to know whether that includes local permitting authority as part of that and what the vision is there.
 - Heather T.: They are local permits. They are done by public health districts, and they are very inconsistent across the state. The question is how we can get more consistency there and what the best pathway forward is. What is the best pathway to make them more consistent to help the compost industry? Don't have the answer for the best pathway forward, but it is definitely a challenge for the compost industry to have it be so variable. They are all across the board and don't all have the same basic information in there. Having the basic information – no matter the formatting – in there in a way that you can read it and get it is quite different and been so over many years. Could argue that it could look like NPDES permit, but there needs to be a time when they go back and review the facility again.
 - Paul J.: Are we also including permits that aren't necessarily issued by local LHJs and aren't related to air quality in the discussion? Actually hesitant to add more permits to the list.
- Julie G.: As a LHJ trying to understand which solid waste rules may or may not apply to a specific site. For example, wanting to deliver your debris or divert material to or from sea operations. We have a great public health enforcement team locally in Clark County that works with the Ecology contact for solid waste enforcement and my understanding and learning over the years has been it's really about how much material that a general vendor or facility site might take in and receive at the site that then determines whether or not it's a handling permit that applies or if they're conditionally exempt. That nuance and complexity is somewhat challenging. From a city perspective to then understand and communicate and make sure we're doing our due diligence in verifying what we're working with any vendor that is qualified and following the laws of the state. Is it a conditional exemption or a solid waste handling permit that can be challenging for those receiving and composting the feedstock material? It sounds like certain generators from a feedstock could be diverting material to an AD facility as long as its pre-consumed food waste and that facility is only receiving 30% or less pre-consumer food waste. This creates a challenge for local jurisdictions to understand where the end destination is going and whether or not that site is or isn't required to meet the same requirements. It creates a different playing field depending on where the material goes for any of these businesses processing waste pre or post-consumer waste.
 - Heather T.: I would say you've touched on several issues: 1) exempt facilities are treated differently and their permits have different language, 2) the question of what is and isn't nonexempt. The bottom line is creating a level playing field for those who want to build or expand facilities, and creating transparency and clarity for the public, regulators, and local government staff in terms of how they're being operated. Wasn't getting at inspection or ongoing cost, but more on when permitting is done.

- Julie G.: Would also ensure that there is funding mechanism. Maybe worth a sidebar conversation because my understanding that even conditionally exempt facilities are on a cycle to verify the conditions haven't changed.
 - Chery S.: We're happy to have a more robust discussion about the rules that apply to digesters at some time.
- Joanna E.: Support looking at options for streamlining and making system more efficient. Ecology has been looking for ways to do this, working with local agents, air agencies and regional offices. When you say unified statewide permitting, would want to know what the intent is and what you mean. Part of the intent is to provide consistent data and to help provide emission factors that will help streamline the permitting process and create more consistency between ecology and local air agencies. Ecology is developing or will be developing a general permit for compost facilities. This would apply to smaller facilities so think the discussion needed is more specific language in order to really understand the intent. The general permit is for air.
- Mary H.: WAC 173-350-250 is specific to anaerobic digesters. Table 250-A covers feedstocks.
- Steve VS: [EPA Region 10 SIP Approved Regulations](#)

e. Incentives

- i. Create incentives for siting of composting/anaerobic digestion and other organic recycling facilities for in:
 1. Close proximity to material sources, to minimize the GHG impacts of hauling
 2. Areas with higher rates of unemployment
 3. Ag areas where the bulk materials can be readily used
- ii. Add incentives such as bonus points for state grants and loans
- iii. Other incentives?

Input: Incentives

- Carl S.: What existing state grant programs? To incentivize what? Would this incentivize projects that are coming in for funding that are in those specific locations? Public works are only public entities that it may apply to – would a non-public be eligible?
 - Heather T.: CCA grants and public work loans. Would be incentives in those specific categories that Tim outlined and maybe you would have other ones you would have to list. We'll be talking about CCA a lot more in future meetings, but there are some compasses that are upgraded by municipalities.
- Travis D.: Could you speak a little bit more to the location of the facilities in areas of high unemployment?
 - Heather T.: This was an idea that Tim had. None of us are wedded to any particular language, but there could be other wording for that, but I think that was where he was feeling like there were some gaps.

- Paul J.: Are these incentives for developers or are we also talking about incentives for local communities? This would be appropriate to think about. Local community incentives for locating more siting facilities especially if we're talking about in some cases, which I think will need more regional facilities just to create the economy to scale that are necessary for operations.
 - Heather T.: We will talk about funding for local governments in future meetings. Today, this is talking about incentives for the developers of facilities for owner operators, developers, etc. We want more facilities in WA that are well run.
- Julie G.: There is a nexus between employer and unemployment metric. Potential solutions lie within the community – a pathway to employment with said investment in skilled trade, labor, access to a marketplace where they can get the skills, knowledge and training necessary to perform or be a candidate for the required work. Also supporting what Paul said about regionalization of facility so that there's an understanding of where materials are coming from and then utilized by said facilities. If the facility should be sited based on knowing they have a long-term agreements and contracts or feedstock that will come to them, they can stay viable.
 - Jay B.: We'd take any financial assistance to help manage contamination or manage any part of our operation. In general, we're all here to support increased diversion and that can only happen if we have more infrastructure.
- Carl S.: Just a flag that cities would likely object to expanding public works trust fund to private organics operators. That is an over-subscribed program to begin with and this would expand the scope beyond its intent and ultimately erode the ability of cities and other public entities to maintain needed investment in core infrastructure. As noted, public organics operators would already be eligible. In terms of prioritization, I think we'll need more details to provide full feedback.
- Brad L.: HB 1799 was based on California's SB 1383 (2015). California has been working for a decade and is not close to implementing their 75% organics diversion goal. California has already spent nearly \$600 million in grants and still needs 50-100 new facilities to process and recover an additional 12 to 14 million tons of organics.
- Chery S.: Broadly...many of the policy discussion points related to solid waste permit conditions, such as operator training, etc., may be best addressed in rule with a robust public process. Ecology is looking at updating the solid waste rule in the next year (or so).
- Travis D.: This gets into the funding conversation, but I know that there's some counties where helping or prioritizing the funding for other infrastructure may open up opportunities to site facilities. So somehow bringing into the picture incentivizing by helping counties or other municipalities get through some of their priority infrastructure, issues or challenges before we can get to composting facilities.
 - Heather T.: Yes, what about the facilities being co-located? For example, a transfer station with a compost facility next to it. There will be a lot of facilities to be built. I've heard Ecology is going to do an even better version of what we drafted previously with better information and looking at some of the seasonality issues. In an upcoming meeting, we'll have a better assessment of our capacity in Washington and what we need to fill the gaps.
 - Julie G.: I would add about facilities co-located with wastewater treatment plants, which could also be publicly run utilities?

- Heather T.: King County is looking at that right now, which is good.
- Brad L.: WA (We) need a thorough Needs Assessment. To meet the goals of HB 1799, Its estimated that Washington will need 55-60 new facilities at a cost of \$1-1.3 Billion.

f. Address definition of “organic” materials

- i. **CA SB1383:** “Organic waste” means solid wastes containing material originated from living organisms and their metabolic waste products including, but not limited to, food, green material, landscape and pruning waste, organic textiles and carpets, lumber, wood, paper products, printing and writing paper, manure, biosolids, digestate, and sludges.
- ii. **WA HB1799:**
 - 1. (29)(a)(i) **"Organic materials" means any solid waste that is a biological substance of plant or animal origin capable of microbial degradation.**
 - 2. (ii) Organic materials include, but are not limited to, manure, yard debris, food waste, food processing waste, wood waste, and garden waste.
 - 3. (28) "Yard debris" means plant material commonly created in the course of maintaining yards and gardens, and through horticulture, gardening, landscaping, or similar activities. Yard debris includes but is not limited to grass clippings, leaves, branches, brush, weeds, flowers, roots, windfall fruit, vegetable garden debris, holiday trees, and tree prunings four inches or less in diameter.

Input: Definition of “organic materials”

- Kate K.: Organic materials is already defined in WAC. Referring to 1799 might not be appropriate way to go about this. Personally, horrified at the inclusion of carpet or textiles in the definition.
 - Heather T.: Organic carpet or textiles. Would not mean they would be going to a compost facility, just be managed in a way to divert from the landfill because they are creating methane emissions.
 - Chery S.: From WAC 173-350-220: "Organic materials" means any solid waste that is a biological substance of plant or animal origin capable of microbial degradation. Organic materials include, but are not limited to, manure, yard debris, food waste, food processing wastes, wood waste, and garden wastes. Biosolids are exempt from the definition of solid waste.
 - Julie G.: In line with Kate that simplicity is best for interpretation to not confuse the public when we talk about programs. When we include things like paper cardboard in organics, it can confuse the message about which bin to put it in which further demonstrates

that this is not plain speak or easy for the public. We want to make sure our programs are easy for the public and for those that want to participate in that. People should be able to do so without having to make too many calls or feel downtrodden because they get a tag from their service provider that says you can't put this here or there. I think California's definition of organic material goes too far. It doesn't serve the broader public with the goal of understanding how to manage their materials at the end of life. I understand we want to keep carpets out of the landfill, but perhaps that's better addressed through EPR for carpet manufacturers to work with us on and to get certain target materials out of the landfill that could be emission producing. The very simple was that Vancouver has chosen to approach this is, as our processor pointed out, is that our collection, our transfer and disposal – how they handle certain material streams or feedstock and all the way to the end processor – is very clear what materials goes through what process and this expanded definition of organics complicates that for jurisdictions that have recycling processing contracts where materials have to go through a certain process based on how we define what a material is. There's a challenge that a WAC could present, if too broad, to unique jurisdictions current processes for two materials streams – recycling and organics – or your debris food scraps collection.

- Carl S.: Aren't wool blankets covered by that existing definition? It's a substance of animal origin.
- Mary H.: WAC 173-350-100 is definitions.
- Alex T.: If the NOP allows certified compostables as an allowable input for organic agriculture, should WA include them in the definition?
- Travis D.: Heard that this wouldn't be necessarily intended to get all of these organic materials into a composting facility. What is the benefit of expanding or enhancing this organic definition to include more things if not to get them into a composting facility?
 - Heather T.: This is the definition of what we're trying to divert from the landfill. Not the definition of what we're putting into a compost facility. It's two very different things. This is about initial definition, but the mechanism for diverting could be different processes and different ideas. I feel like people are just focusing on composting and not thinking broader. The definition is super broad and we're actually broader than California is in our definition, overall, but thinking some more examples might get more creativity of people thinking how they could divert stuff.
- Chery S.: I think having a broad definition in statute is not necessarily a bad thing. We can refine the definition if we feel it's necessary in rule. Rule is adaptable, more flexible and easier to change. We don't update the rules as often as people like, but that's an option regarding the carpets. I am also horrified at putting carpet in with organic materials. This is just an example, but my thought is to keep the definition broad in statute and refine it in rule. There's a great opportunity for rulemaking here.
- Alex T.: Petitioned federal government to make compost acceptable to certified organic products growers/organic agricultural use. It's related the definition California has. Was curious how folks felt about that. I think it's one extra thing that we'd want to be keeping out of landfills that would create methane. It perhaps creates a tricky situation for composters that want to sell into organic agriculture. It's in between materials

and there's potential for policy. This is mostly so that composters who choose to accept compostable products aren't handicapped in their ability to sell them to certain markets.

- Neil E.: Despite the panic that this change in definition might cause, that hasn't happened in California. People understand that while we identified in statute those organic materials we want to remove from landfills, that doesn't mean we're throwing carpet and textiles into blue bins or green bins. We're simply identifying those targets. To divert those would be the goal that is laid out. It certainly could be done in regulation, but in my experience, regulations don't necessarily change to address issues unless they're directed through statutory efforts. If you put in the legislation that would be undertaking a regulatory process to identify the material types, it doesn't necessarily mean that we're trying to change the 3 bin collection systems that are already in place and create more contamination in those streams.
 - Julie G.: I'd be curious to learn if California's law created an environment where OCC and paper that would have gone to a recycling process was just turned into a compost product. When we think of the lifecycle assessment of paper fiber and is it better to recover it through a cycle process or through organics process?
 - Neil E.: Law has not changed that. There have been perceptions – the internal pizza box issue – but it turns out that most of the paper processing have upgraded their technologies. They can handle pizza boxes that might have a medium amount of oil and grease, but they don't want whole pizzas in the box so if you can actually just eat your pizza or throw the pizza into the green bin, that's perfectly acceptable. Agree that we want to recycle all of the paper and cardboard fiber we can, but it hasn't change the dynamic here on collection where people think just because paper or cardboard are identified as organic materials, there's not the idea that we need to throw more of them into the green bin. The general confusion among consumers about what to do with any products hasn't gone away, but that hasn't changed under 1383. I would add that it's actually gotten better because more programs are starting to divert food scraps across the state. There's more outreach and education that goes along with these programs and developments. Incrementally, we're seeing a more educated public, but it's hard to change consumer behavior. Not having compostable products in particular that are identifiable for most people means they don't end up in the right bin.

VI. Next Steps and Adjourn (1:55-2:00)

a. **Next meeting: 11/1, 12-2pm**