Strategic Directive 8.3 Workshop - July 28, 2009
Summary of oral questions, comments and answers.
Not an official transcript.

AD Guidance Doc Questions and Comments

Q/C: If you have an existing solid waste facility, but you want to add anaerobic digestion (AD), you're looking at full compostable materials permit.

A: We have a number of facilities with different activities. They have been addressed differently by different enforcement agencies. Sometimes there is one permit for all activities or separate permits for separate activities. Both of those would work for AD. You could add AD under landfill permit or it could be separately permitted.

Q/C: Regardless, when either revising full permit or pursuing separate full permit for anaerobic digestion facility, there appears to be a disparity between level of regulatory oversight at food waste project at waste water treatment where you're starting to add food waste to feedstock. My view is if it's good for wastewater treatment plant, a tier type structure, then I would suggest the same is true for solid waste facility. I could make case that solid waste facility might even be more appropriate…

Q/C: Good table in document. Might be useful to include number of facilities under each category. As you look at regulatory environment for AD, you may seek out information from operating facilities, what difficulties are, what types regulations helpful or not with regard to how they operate. One other difficulty is particularly in southern California, are air quality requirements. Power generation equipment for captured gas, but right now there's a freeze on priority reserve set aside for public agencies. Recognition of that needs to be part of the package in terms of regulation. Air quality permit--that is the hurdle right now.

Q/C: Appreciation for producing document. Does an AD facility permitted as composting material have to produce compost? I think you've done it as whether it is composting in anaerobic process using organic materials. If there's an issue I'd like to understand.

A: We'll affirm that. What makes you a compost facility is not what you produce, but the process. That's true for AD too.

Q/C: Seek clarification that compostable materials seems to apply to thermophilically digested materials. Many publically owned treatment works (POTW) operate in mesophilic range.

A: If you're above 122 degrees, you're active compost which makes you compostable material handling. If material onsite is handled below that temperature, you're not handling active compost. Look at transfer stations and see if they apply.

Q/C: Does food waste include fat oil and grease? Hope holistic view of net environmental benefit is addressed. Many plants across the state are actively ramping up. A number are looking at food waste. What dialogue is with State Water Resources Control Board (SWRCB) who already regulates POTW and AD. Is there crossover and communication and ongoing dialogue?

Q/C: Include definition of compostable materials. Is food waste a part of compostable materials definition?

A: No, it's separate.

Q/C: Should AD be included in composting spirit.

Q/C: What's missing is EA notification. Bring back registration permit tier. Under PTR regulations we have 100 tons a day.

Q/C: Didn't see how digestate would be handled or what requirements in this guidance document. Also, food waste when adding treatment to POTW, is there any restriction on that in terms of volume, quantity or ratio. Two approaches, including food waste into existing treatment, and stand alone not associated with biosolids. Small amounts of food waste into existing digester. As long as biosolids and food waste in same notification, then there's EA notification.

Q/C: Web: To exempt post-industrial, clean, source separated coffee grounds from the definition of "food waste," can we please not wait for a separate process addressing "Farm and Ranch Composting" or for another process addressing "beneficial use"?

A: It's all one process. Just a timing issue. These are right behind and moving through same process. Stakeholder input and input from board. They're in the queue. We'll be scheduling workshops.

Q/C: I like the approach of white papers followed by line by line regulations. I like that we're treating AD like composting. There may be reasons to have a separate AD regulatory process. I think regulations should be based on impacts. I don't want to see unnecessary barriers. There's a lot about composting regulations that work for AD, but a lot doesn't work well. Mesophilic vs. thermophilic is a bad mistake. Impacts of food waste are not necessarily limited to temperature impacts. Food waste at composting not same. Food waste is going to stink. I think if you do an analysis you'll see a lot doesn't work. Composting regulations as they've been patch worked are already confusing. Make it a chapter, make it a subset. Line by line regulation development.

Q/C: If material doesn't come to temperature, it's not addressed under compostable materials.

Q/C: Biogas and using generator sets, and nox rules. You have AD facilities that produce biogas. What do you do with that biogas when you have stringent rules for generator set. Has there been any interaction with air quality management districts to deal with the issue…it's an issue of spending resources to build facilities if there's difficulty in using the product.

A: On compost sites, LEAs have direct authority over odors, for compost and compost only. In Board regulations, can't fix or change anything how district can regulate biogas or water, but we'll have discussions with water and air folks. We'll be a facilitator for dialogue and information dissemination from those agencies where it's needed. Board needs to have dual role to be sure they're operated per public health. Also has role to

divert materials in effective manner. I can see Board working on air and water as facilitator. Whether or not we can change regulatory framework, I would say no. Historically we've been told to stay out of that.

Food Waste Compost Regulations

Q/C: On page three, 10 million tons processed. Was there a capture rate study? We had four million tons in 1994, and 6 in 1996.

A: We need clarity. Reference document and pull out key aspects.

Q/C: Sixty-seven percent of organic materials need to be diverted. None of that material is available to reconstitute soils. Either that ends up in landfill or boiler fuel. Organic amendments to soil are going to save urban water. We need to give farmers compost. Sixty-seven percent going to someplace that doesn't help problem, I call offense to that.

Q/C: We took on this issue, one of the points is, have negative impacts been considered. We analyzed this. We started with primary assumption that when you do literature search, there's a statement from EPA, because it's aerobic, there is no methane. We kicked the dirt to determine if that's true. We found wildly different things at different sites. At 3 sites, when you take flux measurements across unit areas, when you apply across surface area of pile, you start having very significant methane generation coming out of pile. Twenty-six percent comes off at one site, another site was close to zero and third site in between. That assumption that composting is inherently aerobic and we don't need to look at emissions is not true in all cases. Composting goes anaerobic. We need to identify when those conditions are and apply best management practices. We need to do what's right for citizens and environment. We may not be doing that when we put food and green waste in.

Q/C: Besides just "pre-consumer" and "post-consumer" food waste, can we have an additional category for material such as coffee grounds, which have been proven to not have the same problems as food waste?

Q/C: Which composting facility was it that was grinding up the glass and plastic and screening out at the end? Regulating contaminants by weight or volume as it reaches the composting facility is preferred. And in cities where green waste is not used as ADC, the citizens are more accustomed to setting out cleaner green bins.

A: It needs to be recognized that there's potential that level of non-compostable material may increase as we add food waste.

Q/C: White paper shows that current regulations impeding new facilities. Opening up tier would provide additional opportunities. Well managed facilities can solve odor problems. No difference in how you handle odors regardless of tier. Are there limits of percentage of food to green? The current metals are not concurrent with federal regulations. Need to adjust maximum metals to parallel U.S. metal regulations. We need to test for both coliform and salmonella. New research would be great.

A: We're not showing favorites with U.S. Composting Council. Council is trying to increase training. It's just an example of an entity we could work with. Ken talked about compost quality and safety. I see a strong role for board relative to safety, from a public health, safety and environment point of view. Any comments relative to that are appreciated.

Q/C: Is food material regulation vague? It is. Restaurant waste and postconsumer food greases are different. Pre-consumer can fit into green material definition. After 2 years of a study, no impact with coffee ground project. We had to get a full permit tier. The project is gone because of that. Issue number one, bring back to registration tier for 20,000 cubic yards for preconsumer food material. Better definitions for food material…

A: Product safety and quality. Clarification on feedstock control to drive product quality.

Q/C: Last summer EPA conducted webinar on climate change. Most gaseous emissions take place in first year that material is post-consumer. So when does composting start with food waste? We can't let this stuff sit before we start to manage it. That's important. Methane creation landfills, until gas collection installed, all gas went into atmosphere. There is no gas collection prior to certain point. California regulations more stringent than federal. Data available from food debris, such that it would be created, would happen early in process. The Chicago climate exchange studies indicate the gas collection works well in mature landfill. Part of the preamble ought to be that we need to move faster. We have to build a lot of AD facilities quickly. There's still a lot of gases not being captured…

Q/C: Have to look at how to get food waste out of landfill. What is it and what tier? Need regulatory tier. We need to look at safety issues. Glad Waste Board tackled that. Look forward to working with improvement of regulations.

Q/C: Thank you…pointing out cross media issues, have been working on these for several years. Need to foster communication between Waste Board, and Air and Water Boards. Glad to hear dialogue ongoing. Wanted to make point that question posed on metal. European Union (EU) standards to 503 Standards. The 503 Standards were scientifically based on 14 pathway risk assessment. EU standards are country by country. EU Directive of 1986 still in effect, Directive of 2000 never passed. They are based on precautionary principle and lack of scientific basis. Look at scientifically based measures.

Q/C: At South Coast Air Quality Management District, rules are stringent. Piping etc. put in up front. If not, you'll be cited very quickly. We as an agency support a diverse organic management structure. We do other things other than operate landfills. We're supportive of other alternatives. Alternative management systems are helpful to look at greenhouse gas impacts. I'm glad there's a lifecycle assessment.

Q/C: Colleges have a great opportunity to research. With the current research being performed in 2 years, or can we have continuous research of compost, we'd like to be able to address that.

A: Current compost regulation is one of few that speaks to establish research under low level regulatory oversight. We've seen lots of variation of types of facilities that have been established under research protocol. When does research stop being research

and become an outgoing activity. Allow research to flow, without allowing it to drift into something commercially related…

Alternative Daily Cover (ADC) Q/C & A

Q/C: Will other alternatives, besides class one disposal, be considered as part of review?

A: Yes, we want to look at treatment technologies, check efficacy. No ultimate decision has been made.

Q/C: As green waste as ADC usage went up, amount of composting products doubled. That's an interesting fact. Thank you.

Q/C: On page 8, chart speaks of ADC&D. Is that same class as Materials Recovery Facility (MRF) finds?

A: We do track all ADC types. MRF finds not identified type, so that's captured under "other."

Q/C: I assume you understand is to run out of system on air belt and…

A: Staff's experience with ADC is that there's a line processing, screening to get finds out. Those have been suggested to be used as ADC at various landfills. Site specific demo projects have to pass the demo before it can be approved for particular materials at particular site. Sometimes they don't meet requirements, either political or physical.

Q/C: Do LEAs have standards about whether MRF finds acceptable?

A: Case by case now. We have seen operators and LEAs step up and gone one step up in terms of what they look at and how they evaluate. Solano County, most recent, and highest oversight of proposed projects. It's all over the map as to how much these materials are evaluated.

Q/C: I wanted to check data on page 10. Twenty-nine percent of organic material that does not go into landfill as garbage becomes mulch. The sentence that you read of Bustamante law, that state should do calculation of what the effect of Bustamante law had growth of composting industry. From the beginning, the state never did a head to head where composters are competing with landfills. Orange County takes green waste for free…how can we compete. I believe one reason mulching has grown is because waste haulers control mulching, but they have to pay for composting. That costs money and is a different problem. Landfills are undercutting on price. I don't think you've done what Legislature has told you to do. In a head to head, is compost yard competing fairly on price.

Q/C: Quick comments. Nice job of compiling years of history. It's not always easy to put this in balanced perspective. In opening paragraph, talk about other stakeholders indicating positive factors of ADC. To achieve balance, talk more about ADC as substitute for virgin soil. It was authorized initially to substitute for soil, to save soil for other uses. You are going to present this to newly appointed board. It's fair to give perspective that the things we've done to expand ADC, there have been specific

reasons to do it. On chart on page 7, it's fairly clear from chart that while there's been a bump of ADC in 2005, generally speaking, ADC has stayed below 10 percent. On a general state basis our use of ADC is fairly in balance with what is appropriate use. On page 8, since we're only getting 40 percent of green waste stream, there's a good segment that could be non-compostable. It might be useful to know what percentage that is. Forty percent being dumped for ADC, that's fairly inflammatory. There is a portion of green waste stream that does not lend itself to be composted. On your options where we list and discuss, the optimum amount depth and quality has not been adequately researched. It may need to be updated, but it's been researched and the ADC is inspected regularly. Those inspections indicate that this material has been adequate to meet 6 inches of soil. Maybe that statement can be altered to look at standards and update those. We've got years of history here…second comment, that some ADC makes it difficult to evaluate compliance. We do have regular inspections…the SWIS system. We report use of all types of ADC. I would take a little bit of …express concern that implication that previous speaker mentioned that there's gaming of the system, and that's not necessarily true across the state. Maybe isolated situations. ADC often includes feedstocks not allowed. I would take a look at whether gypsum should not be allowed, as well as glass and plastic...I understand concerns about production of toxics. If you can dispose in landfills, why is it not common sense to allow it in ADC…?

A: When we tried to focus on research, we focused on depth aspect…we're not doubting materials, the question is how much do we really need. Relative to the enforcement. We're not speculating that anyone's gaming the system, but we have an inspection protocol that calls for monthly evaluation of something that happens every day. Are there additional tools, in regulations or guidance, to the inspector? Look at what you see when you're out there, but maybe examine ratios….are we sure that what we see on monthly basis is happening all the time.

Q/C: I appreciate philosophical arguments and other points of view. However, to make this balanced, if you look at Table 4 and the 10 percent, and you look at how much is green waste, 6 percent is green waste used as ADC. If you're going to look at diverting organics, there are other areas to look. Yet, this is fraction that gets most attention. That's ironic. Managing green waste is a big issue for southern California. If you look at Table 7, southern California generates the most green waste. That's where you have to manage it the most and where's there's the least infrastructure. Local government would argue if you didn't have diversion credits, there would be no incentive to bring in separately green waste into common point of collection. It's not free. We do charge for green waste to recover the cost to process and make it suitable for reuse. We make whatever we don't use available to others. We pay extra to haul extra to other counties or remote locations so we can support composting industry. There are real benefits. As I noted before on page 10, even though the use of green waste (has increased?), so has composting products. It's a balance you have to reach to maintain a diverse infrastructure. We shouldn't attack one side when it helps you maintain composting on the other.

Q/C: We have consistently over years asked Waste Board to look into impacts of green waste composting.

Q/C: Use of biosolids. In Table 3, what are units. Are those wet tons?

A: Yes, those are wet tons.

Q/C: On Table 7, you can almost invert that table for biosolids as ADC. Where northern California uses it, much more expansively than southern California because there's wintertime prohibitions on land applications of biosolids. In southern California, it's been pointed out, siting composting facilities poses difficulties because of air quality regulations. ADC use viewed as reasonable diversion.

Q/C: What started us talking about recycling was issue driving us about landfill capacity. That's why we started looking at diverting things from landfill. We now have infrastructure to pull wood waste and green waste from landfill. We're using ADC green waste. We're pulling out of waste stream, and using it as cover. We can show historically we're providing more landfill capacity so we don't have to site as many or fill as quickly. I encourage and we need discussions about promoting additional composting operations in southern California. There are operating composting facilities. We're getting palms, and other things that aren't readily compostable. Let's keep in consideration that we're diverting this waste stream from the landfill and that has a value…

A: Want to hear about how quickly landfills are filling up pre- and post- ADC. If there's information or records that would be great to see. We can add that into the paper…we did get some early comments. A question arose if a landfill is utilizing other than soil and a layering approach, is there any issue with how the landfill operates or needs to be designed, or stability over time. If there's a study or information relative, that would be much appreciated. It's different than what it was 20 years ago.

Q/C: I'm weary of this debate. It's disappointing we're still here 10 years later. Staff is going to reexamine cost differential. Different sides of same coin. I think I'm encouraged by issue paper. Bringing more science and studies is interesting and illuminating. I'd love to see number for non-ADC use. I think papers suggest there's a decline, and I don't believe that. Need to take a look and see whether that's accurate. There was a study done which Boone referenced earlier. The study done by landfill firm, Orange County found that essentially is a yard of green waste in is a yard of landfill lost. Study listed on page 21. Is that a board study? At end of the day, if our charge here is to look at scientific basis, my understanding is to serve a certain function, green waste doesn't meet those needs. Need to take a scientific look at those.