

November 1, 2010

Central Valley Water Board
Attn: David Sholes
1685 E Street
Fresno, CA 93706-2007

RE: Comments on the Draft Dairy Digester General Order

Dear Mr. Sholes:

I wanted to call your attention to several items in the draft General Order that I don't think anyone is else addressing. But first let me note that I had intended to send in more detailed comments on the draft document but have been overwhelmed with "putting out some fires" the last week or two (though I did pass some comments on to others) so my comments are limited.

My first comment relates to item 37 on page 9 under "Regulatory Considerations". It states:

"This Order regulates the discharge of solid waste (digestate) generated by dairy manure digester/co-digester when used as a digester generated soil amendment on land application areas. With appropriate storage and application to land application areas at agronomic rates and in accordance with a certified NMP, solid wastes generated by a dairy manure digester/co-digester should not cause an exceedance of groundwater quality objectives."

There are a couple of red flags I see with this item. First, the term "solid waste" is used, which has both a common and a regulatory "defined term" meaning. As used by Cal Recycle, "solid waste" usually refers to a waste that is normally landfilled unless diverted for reuse. And that may be a trigger a Cal Recycle regulatory role having some other legally important implications. Correct me if I am wrong, but I think the Regional Water Board intended to use "solid waste" in the descriptive context and not necessarily to trigger regulatory involvement by Cal Recycle (whether or not there is other justification for their role). Clarification of that would be useful with my preference being different terminology.

If I am correct in my assessment (that the intent was not as regulatory denotation), I would recommend the term residual(s) or just "solids". If I am not correct, then I would like to have a follow-up discussion as there are some important ramification that should be considered.

On a related issue, there are at least two categories of solids that could be referred to here that may require different specifications or requirements. Typically a solid separator is used either pre or post digestion to remove what is mainly undigested fibrous material. This fiber material is often used as bedding for cows but it is sometimes sold as a soil amendment.

Exporting this fiber material for reuse as a soil amendment is good for water quality as it removes a least a small portion of the nitrogen and salt from the dairy and provides other offsite users with a product that improves soil quality (often reducing chemical fertilizer use).

That brings up item 7 on page 15 under "Prohibitions".

"The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner or in a manner not approved by the Executive Officer, is prohibited."

If the Water Board intends to regulate digester co-product material when used on "land application areas" other than a dairy, it will likely severely limit the attractiveness of the product in the market place. That will serve to further discourage co-digestion as an economically viable option for dairies. Importantly, this material may have less salt than other feedstocks currently used by the potential buyer. That would suggest, if so regulated, that the or salt content (type of salt compound is important) should have a trigger level to invoke an "offsite" (to a dairy) limitation on its use. But it shouldn't put this "organic soil amendment" at a competitive disadvantage over other materials commonly in use.

I would say basically the same thing about the "solids" that accumulate in a digester that periodically need to be removed from the digester (but may have higher salt content than the fiber material) which importantly could aid in achieving dairy nutrient and salt balance.

That brings up another related prohibition on page 16 (item 14) that states:

"Discharges of storm water to surface water from the land application areas where manure, process wastewater, or liquid or solid waste produced by a manure only digester has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan."

The way I interpret this is that dairies will be effectively prohibited from selling (or even giving away) their digester co-products. Importantly some dairies now sell or give away their manure solids or pond wastewater which helps keep them in balance for nutrients and salts. That is a good thing that the Water Board encourages. Many or most residential and commercial customers that would want to buy digester "treated solids" (which are nearly pathogen free) are now going to have to comply with a certified Nutrient Management Plan (and most don't know what one is). Dairies who have digested their manure to create a nutrient rich organic product used by organic (and non organic) growers and gardeners will be held to a standard that no one else has to meet. How in the world would you regulate the perhaps hundreds or even thousands of residential gardeners or commercial customers that want digested pathogen free manure? And why would raw unstablized pathogen laden manure be preferable to treated pathogen and odor free stabilized manure solids? From a public health standpoint, the latter is much better. Where public health impacts have occurred from manure (short of falling in a manure pit), they have most commonly come from manure pathogens. The Water Board is discouraging what is should be encouraging.

Let me remind the Water Board that biogas digesters are first and foremost a wastewater treatment technology designed to improve water quality and benefit public health. They result in environmentally preferable by products and wastewater that contains lower BOD, pathogens, stabilized nutrients, lower odor, etc. If you read this Order in the context of a POTW where wastewater discharges and solids produced from the digester treatment process were regulated much more severely and with greater restriction than the untreated wastewater and solids, than you will perhaps see the irony of the General Order.

Note that there may be instances where the "solids" may be considered a fertilizer (based on the analysis) and not a soil amendment. I don't know that they have ever been labeled as such in California, but would want to allow for that possibility. And if they were to be so labeled, and used as a substitute for commercial fertilizer, how would they be regulated? And would they have to meet more stringent land application requirements (say for salt) than current formulations of commercial fertilizer have to meet (I don't think the Water Board currently regulates fertilizer products or their use). Again, the intent should not to put biogas facilities (or their products) at a competitive disadvantage particularly if they pose no greater water quality risk (and may be an improvement over current practices and products).

Let me observe that I know the Water Board staff are well intentioned and you are looking to protect the public health and the environment. However, there needs to be a reality check if the regulations designed for such purpose act in ways that are counter to that intent. I trust you will consider my comments in that context.

Thanks for providing the opportunity to provide feedback.

Sincerely,

Allen Dusault
Program Director
Sustainable Conservation

Cc: Stephen Klein
Clay Rodgers