From:	Mensonides Dairy
To:	Jennings, Jonathan (ECY)
Cc:	amensonides@aol.com
Subject:	DRAFT CAFO PERMIT
Date:	Friday, October 02, 2015 9:25:50 AM
Attachments:	image001.png DOC033.pdf

Have attached letter

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September 28, 2015 Via FAX 360-407-6426 and email: jonathan.jennings@ecy.wa.gov

Mr. Jon Jennings
Washington State DOE
P.O. Box 47696
Olympia, WA 98504-7696

Re: Comments on DRAFT CAFO PERMIT

Dear Mr. Jennings,

Here are my thoughts and broad comments on the current proposed draft of the proposed ECY CAFO permit. I have a modern dairy, constructed in 2002, milking about 5,000 cows in a Freestall flush design. All my liquid storage basins were designed by Mark Wasemiller, PE, at that time he was the NRCS District Engineer. These basins were constructed to NRCS Standards and Specifications under his direct supervision. I have all the documents necessary to show they were so constructed. Therefore, my comment would be to EXEMPT all such storage basins with this level of documentation. The NRCS Standard assures at least 10-6, and add in manure sealing it's 10-7. The standard you propose is unnecessary given this extremely low loss rate (in theory, there may be ZERO loss from a properly installed synthetic liner like I have). This proposed standard carries with it an large cost penalty, it is completely unnecessary to go beyond 10-7, especially since this proposed permit's reason for existence is to legalize a very small, probably in the big picture meaningless discharge. Remember, virtually ALL of the N in my storage basins is in the form of Ammonia, which is NOT water soluble and will not leach to groundwater, particularly with the type of Warden Silt Loam soil on my site which is high in clay at depth.

Much of the proposed draft ECY permit represents your attempt to Re-Invent the wheel. The current NRCS Standards and Practices have behind them thousands of peer reviewed, scientific journal published research articles. Each of these Standards and Practices is reviewed and updated on a continuous, 5 year basis. You have proposed a completely foreign standard - AKART. I have researched on the internet - there are no published standards and practices for AKART as it relates to dairy or

forage production. A similar search pulls up 80+ years worth of solid, progressive science. Trying to replace the NRCS standards - with this huge breadth and depth of knowledge which is a PROVEN standard in all 50 states, why in the world would we turn away from and reject this body of knowledge for AKART? Your AKART standard is whatever you or some other regulator in Olympia determine it to be. This makes it a nebulous, drifting, uncertain standard that is ever changing. Business needs CERTAINTY in regulations where specific standards - like the NRCS Standards and Practices - which are CLEAR AND UNAMBIGUOUS. They allow some flexibility in specifics for adoption, so long as the basic targets are met and the standards upheld. This is light years better than your proposed AKART. DUMP any and all references to AKART in your next draft document please.

Application review and renewal period in the draft document is set for 180 days. This is clearly excessive, and should be NO MORE THAN 90 days. Working with a private PE if the plan review takes more than 7 days I am going to be getting myself a new PE.

All basic application, annual report/renewal and nutrient tracking information should be on a clean, simplified ECY supplied form that can be done via computer/internet. Acknowledgment by ECY should be within 48 hours for confirmation purposes. The best available format, proven over time, is the NRCS form, which we currently use in our DNMP.

Delete any references to not allowing (or even encouraging) floating solids in storage basins. Research has documented a REDUCTION in air emissions from these mats that form seasonally on some primary storage basins. Don't put us in conflict with another government agency, YRCAA, simply delete this from your draft.

Like many producers, we have a limited "green line" for use on cleaned and diluted liquids, you have put in an unnecessary and draconian pressure testing requirement that will be costly and I believe counterproductive. Green lines are in effect PRESSURE TESTED EACH TIME THE ARE USED. A standard visual inspection on a regular basis under use is sufficient.

Because we are also a farming operation, we are very familiar with the basic requirements of 40 CFR, FIFRA as amended, with its parallel State Statutes. This law covers the storage, mixing and application of all pesticides; It is redundant and unnecessary to duplicate any references to them here. Two sets of laws and enforcement agencies - WSDA and EPA are more than enough, ECY should keep completely out of this arena. Your agency does not have the expertise like EPA and WSDA in this area.

Buffers: these are important, and in some cases a necessary protection for surface water quality. However, arbitrary, set distance, one size fits all buffers are a guarantee of failure. Buffers MUST be FLEXIBLE to meet SITE SPECIFIC REQUIREMENTS IN ORDER TO BE EFFECTIVE. In addition, in so many cases here in Eastern Washington, an effective field berm of just 3' wide and 18" tall works better than a "buffer" of any size. We keep runoff from getting to our fields, and prevent any run off this way. The wasted acreage contemplated in your proposal puts an undue and unnecessary financial burden on just a tiny FRACTION of the ag production sector. This "buffer " area will also act as a harbor for weeds in general, noxious weeds in particular, and can also harbor diseases and pests. All of these factors increase production costs and reduce returns, again compounded the differential in farming under your permit vs all of my neighbors. It also will increase substantially the use of pesticides, something which is generally not good for water quality. This has not been thought through, and should be changed to allow site specific buffers to NRCS Standards.

On land application of nutrients, there is a gross lack of basic agronomic knowledge evident in the ECY proposal. We typically grow a double crop rotation of Winter Triticale followed by Corn Silage. Winter triticale grows whenever the air temps reach 35F, a common event from November 1 through February. Setting an arbitrary limit on applications in our very arid climate is without technical basis; remember we are operating under RCW 90.64, have a DNMP, and have field berms to prevent run off. Seedling crops have shallow roots and must obtain all their nutrition from the top 4-6" of soil. Timely, small applications of nutrients are better than a single, large application regardless of nutrient

source/type from a water quality viewpoint. Growers need guidelines like those provided in the NRCS 590 Standard, which offer some flexibility and work off the foundation of the 4 R's: Right rate: Right time; Right Place; Right form. Your draft document does not follow this format, which is based on proven research. One of the most repetitive flaws in your draft document is that it seeks to make "one size fit all". By that I mean that you elect to choose and impose numbers with no basis in actual proven science, but rather are easy to enforce. That makes as much sense as dictating that EVERY person in the State of Washington may wear ONLY size 10D shoes, since that is the mythical "average size". That approach means that in at least 90% of the cases, the people are barefoot as they can't wear a shoe that is too big or too small. Lack of common sense is one of the deadliest diseases in Olympia, at least based on my initial reading of this draft CAFO Permit.

On our farm fields, we utilize a Certified Professional Agronomist to advise us on matching crop nutrient needs with available nutrients on a specific, field/year/crop basis. He has conducted extended trials with deep soil sampling following the guidelines suggested in your soil test table/matrix. Yields were not seriously impacted in years one and two, and a steady "draw down" of the top three feet was documented. However, on a portion of the field where NO nutrients were applied - as your permit suggests (+45 ppm in the soil test) yield was reduced about 15% in year four, and a full 30% in year five. Frankly, I would have to discontinue farming and sell or lease out my land. Speak to any knowledgeable producer, and you will find that there is no forage crop with a 30% margin available to grow. It is the position of ECY that there is any equity in forcing CAFO producers out of farming? What then will be the outcome? <u>All these lands will leave your permit jurisdiction and be under NO controls for nutrient applications, PERIOD.</u> If this is not the outcome you seek, you must completely revamp this entire section of the draft permit. In my meetings I attended I developed a distinct impression there is NO PERSON AT ECY who is QUALIFIED as a Crop Scientist of Agronomist that could provide appropriate technical input. I most strongly urge that you completely revamp this section after getting detailed advice from a properly qualified expert, I would recommend searchiing outside of ECY to find such an expert on a contract basis.

Your draft permit contains a provision <u>requiring immediate incorporation of nutrients.</u> The mere existence of this provision is a graphic demonstration of the abysmal lack of technical expertise pertaining to farming in general, yet you seek to regulate this sector of the economy. That is like putting someone in charge of driver's license testing who has never driven! For your education, please understand that there are over <u>1 MILLION ACRES</u> in the State of Washington which are farmed either minimum till or no-till currently. As the name suggests, under no-till farming we DO NOT DISTURB the soil, therefore we cannot possibly comply with your draft proposal relating to the requirement for immediate soil incorporation. Just to bring up to speed, the USDA, NRCS and FSA (who actually deal with farmers on a daily basis and have for over 5 generations) are actively PROMOTING the adoption of minimum and no-till farming, due to the <u>proven short and long term benefits for cleaner air and water.</u> What on earth would possess ECY to try and undue one of the most widely adopted, proven in practice and research BMP's for air and water quality? This casts a long and dark shadow on the entire ECY draft proposal, that this would make its way into your document. I personally have farmed completely NO-TILL for the past 9 years all my crops.

Your draft permit proposes to require testing for TKN (Total Kjeldahl Nitrogen), a test <u>not used by farmers, agronomists or soil scientists tasked with supporting production agriculture.</u> The TKN test I recognize has value in WWTP/Domestic and some industrial applications, but not in production agriculture, and specifically NOT to forecast N amounts and availability. There are technical reasons for this beyond my ability to explain, I would urge ECY to contact the half dozen soil labs operating primarily to serve production ag, and confirm this. We test for Nitrate N, Ammonia N and estimate Organic N release based on NRCS tables. This is a system which has worked very well over the years, and has become the industry standard. Just check the Wikipedia page on the Kjeldahl test, you will see it has

sensitivity problems, and does not detect N in a number of commonly found compounds within plant tissue. Another factor to consider is it is a slow test, and several times more expensive to perform. The lack of association between TNK results and nutrient availability is the primary reason it is not a good fit for use anywhere in this permit. Stick to muni WWTP plants for this test please!

We have historically only sampled the top 1' of soil for nutrients when forecasting our crop N needs, and setting the times and rates of nutrient application. There is a very good reason for this, the top foot provides the strongest association between nutrients in the soil and available for plant uptake, and this is the fundamental basis for setting application rates of nutrients. Many years of peer reviewed scientific testing have shown the deep the soil sample, the less reliable the information is to a producer tying to decide how much nutrient to apply, when to apply, where to apply and what form to apply. The standard PNW extension bulletins covering fertilizer recommendations by our local Land Grant Universities follow this logic, and base their crop by crop recommendations on 1' soil samples. What technical science is available to ECY to establish they know more than this collective body of science and experience? Drop the requirements for 2' and 3' sampling and stick to what can be proven to be the best scientific tool - the 1' soil sample. The poor correlation with crop response to 2' or 3' samples makes them not useful for evaluating the nutrient needs and availability for current season crops.

As it relates to record keeping, your proposed draft document creates new standards and reporting formats that I would struggle mightily with. The record keeping for CAFO's like mine was greatly increased and codified in 1998 with the passage of DNMA law. The DNMP's required under RCW 90.64 create an excellent standard we have become accustomed to, and which contains all the truly relevant information. I would urge a complete scrapping of your proposal in this regard, and simply embrace and adopt the record keeping we are already trained to, associated with the DNMP. In the several meetings I have attended with ECY on this proposed new permit, I have not heard a single cogent argument advanced showing why the current record keeping system should be scrapped, and an entirely new, and certain to be complex one forced on producers.

Frankly, in a broad sense I am deeply disturbed by many of the other provisions I won't directly address in this letter. The overall tone and tenure of the ECY proposal leaves me to believe the following are PRIMARY objectives of the ECY draft permit:

1. CAFO's are being treated like a "point source" for nutrient loss. There is abundant evidence of the highest scientific standards which categorically rejects this as a general rule. I understand my CAFO presents a potential point source, but in actuality this is clearly not true for many CAFO's, mine included. Since I built in 2002 on a site with no prior animal history, I had a "clean sheet" to work with. In that section of the dairy where the Storage basins are located, it is OVER 175' to first ground water. ECY should take to heart these important findings, which strongly indicate well designed, installed and maintained storage basins DO NOT LEAK.

Overall, I urge ECY to simply START OVER with this entire approach to a permit. There is ZERO science behind the use of AKART on a farm, get rid of it. Work with what science shows is the best standard, and has a proven track record if fully utilized; NRCS Standards and Practices. Use the proven and well adapted to producers DNMP as the entire basis for your draft permit. Let peer reviewed and time proven SCIENCE as best exemplified in the NRCS Standards and Practices form the bedrock of your next draft permit document.

Sincerely Yours,

Art & Teresa Mensonides
Mensonides Dairy