

Open Work Session
Discussion on Dissolved Air Flotation (DAF) Material
August 18, 2020

Ms. Holly Porter, Executive Director of Delmarva Poultry Industry (DPI), Inc., came before Council and said she appreciates the opportunity to be here to talk about a topic she knows has been brought to Council several times over. She said she was hoping some folks from the Maryland Department of Agriculture (MDA) and Maryland Department of Environment (MDE) would be here to also share information, but it appears they were not able to; therefore, she is not here to answer any regulatory questions, but she wants to share an overview of what DAF is, why tanks may be needed, what goes into the tank, and also to talk about some other things that the chicken industry is doing. She said this is a process that is part of the chicken industry, and that is why she wants to share some information.

Ms. Porter said Council probably received frequently asked questions that were put together last year, and some of these are going to be very similar points to that. She said, when they talk about DAF, DAF itself is actually the process. She explained, it is a process that is called dissolved air flotation that is basically the process of taking the wastewater that comes from any food processing plant of any sort, adding dissolved air and certain chemicals that have the wastewater and the solids separating so it can continue through the wastewater process. She said the remaining liquid would discharge to a treatment plant, and then the DAF residual is what is left. Referring to her slide, she said these are DAF tanks that she found on-line, and are not particular to any of the processing plants in their area, but they have a very similar look to them. She said the one on the right is where they are starting to add the air.

Ms. Porter said the DAF residual is what they are really talking about, and those are the skimmed and solids, which is more of a liquid form than it is solid per se. She said those residuals are not animal waste or human waste biosolids, and she thinks it is very important to understand that these are not biosolids. She said they are legal in the State of Maryland because they are considered a soil amendment, so they are registered with the State Chemist of the Maryland Department of Agriculture, and they are used for agricultural purposes just like any other soil amendment or fertilizer in order to help plants grow, essentially. She said they are increasing organic matter, they have some nutrient content, and it is helping plants to grow. She said it is really a sustainable use for something that would otherwise be considered a waste. She said, again, the soil conditioners, which the DAF residuals fall under, are regulated by the State Chemist, and the application of these residuals is also regulated by the Maryland Department of Agriculture through a Nutrient Management Program (NMP). She said all farmers are required to have NMP plans, and those plans basically say how much nutrients the field needs based off of the crop they are growing, and all of that includes nutrients, whether from commercial fertilizer, chicken litter, DAF, or any other soil amendments that are used. She said farmers are required to report that information on their annual implementation report that goes to the Department of Agriculture, and that is as regulatory as she is probably going to get here in saying all of that information.

Ms. Porter said there are a couple reasons why storage is sometimes needed on a farm for DAF residual. She said, when they have storage, they are going to decrease the amount of time it takes to put the soil amendment onto the field. She said she believes there are two topics that have come up at Council Meetings, the application piece, and the tank piece. She said, as for the application piece, part of the

concern is the length of time it takes for these materials to go on the field, and the tank shortens that because the materials are close to the field they are going to go to. She said it is no different than a tank on a farm holding commercial fertilizer, nitrogen, phosphorous, or whatever the case may be. She said the materials being there make it quicker for the farmer, and it also allows storage for when there is inclement weather. She said just a couple weeks ago they had a tropical storm come their way, and farmers could not get onto the fields to put anything on the fields, so the storage tank allowed for the capability of farmers to still collect it. She explained, the processing plants are running and still have that material available, so when they are ready to get back on the fields, they would be able to do so. She said one of the biggest reasons for the storage tank, and one of the reasons why the storage tank is sort of a new concept, is the ban that was put on and started to be implemented in the past couple of years by the MDA where farmers are not able to put nutrients on fields between December 15 and February 28. She clarified, just because the farmers are not putting things on fields does not mean the product itself is not still being created. She said the processes at the chicken processing plants are still running, so they have to have storage. She said this is no different than farmers who have to have storage for litter during the timeframe where farmers are not able to put it on the fields, or a dairy farmer or hog farmer would have to have storage for these materials because they cannot go onto the fields.

Ms. Porter said a big question that has come up many times is whether the tanks are safe, and yes, it is safe, it is constructed to USDA NRCS standards, and she will tell them, there are probably no tougher standards out there than USDA NRCS standards. She said, as a matter of fact, when tornadoes were coming through a couple of weeks ago, the best place to be was a chicken manure shed because those are also built to USDA NRCS standards, and she guarantees they are not falling down. She clarified, there are specific standards these have to be built to, and there are specific ways they are built so they are going to protect and make sure there is not an overflow. She said the question came up of whether there is a possibility of an overflow with a major rain event, but, no, it would not. She said they are also tested weekly to make sure that it is not going to be filled all of the way to the top, basically, to prevent any possible types of overflow. She said, in addition, from the environmental aspect as well, these tanks, especially ones of the size that was built, and ones in the future that will be built, are going to have a disturbance of more than one acre, so, therefore, they are going to be required to have a stormwater management plan, just like any chicken farms that are built. She said, again, those plans are meant to mitigate any potential stormwater runoff or environmental risk to any waterways around the area.

Referring to her slide, Ms. Porter said this is another view of a tank, and hopefully Council has had the opportunity to go out to Porter Mill Road and see the one that has been constructed, but this is a very similar concept in the look of the tank.

Ms. Porter said a question they heard throughout the timeframe is if there are other tanks like this out there, and the answer is yes, there are other storage tanks on Delmarva that have been used for a number of years. She said, again, these storage tanks are not special for DAF. She explained, these storage tanks are no different than tanks that would be used for livestock farms, or lagoons that would be used for livestock farms, specifically for livestock other than chicken. She said, when they look at dairy or hogs, storage tanks and lagoons have been used for years, and these are the same exact type of tanks that are being utilized for that. She said the big question and concern was whether the tank will smell, and that was the big unknown for those constituents who were concerned. She said, unless the

materials inside the tank are being stirred up, there is very minimal smell, if any. She said, as a matter of fact, just last Wednesday she drove out and sat in the lane where the tank is, had her windows down and got out, and she smelled nothing. She said there is a crust that will appear over the top of the material, and that really is one way to help decrease the odor. She said, when the materials are being stirred up, meaning when they are being mixed up to be removed to be put on the fields, that is when there will be a smell, and there is no denying that. She said she lives in an area no more than a few miles from where one of these tanks are, and there is a smell, but it is a temporary smell. She said, in addition, there has been a lot of research into different additives, enzymes, and chemicals that can be placed, and there have been additives actually put into the current tank that is out there now, and they really feel good about the additives because many of the farmers themselves and the folks who have worked with them are not having nearly the smell, so they are actually excited about potentially using these types of additives for other areas and other tanks as well, so there are ways they can mitigate the smell. She said there are other ways that can be mitigated in the sense that the current tank and many future tanks have trees that are around about two-thirds of this. She said this is no different than when they build chicken houses and put vegetative environmental buffers around those that help reduce smell, help reduce air, dust, and so forth. She said it is a very similar concept for ways to help reduce smell.

Ms. Porter said they have heard from many constituents who asked what the chicken industry is doing about this, and if there are other alternatives. She said the chicken industry is always looking forward, always looking for improvements, and always looking for different ways to do things. She said there are several companies out there, none of which are operational at this point in time, but they are looking at some long-term alternatives in being able to utilize DAF material in a different way, whether that is to process it into an anaerobic digestion, or into some other type of dehydration where they still have the nutrient content and are able to capture that nutrient content back out, and still be able to utilize it on the fields. She said there are several that have names, none of which are operational, but they are being looked at and talking to companies, and seeing what technology may or may not work at this time. She said the DAF material has been placed on fields for years and years, is not anything new, and is not new to poultry processing or any food processing. She said, again, she thinks some of the new feel has been having the tank built, and some concerns with smell more recently than others. She said, again, she did not want to talk too much about the application, but one of the farmers who often had constituent concerns purchased some new equipment this year, and has been utilizing that equipment to make sure the materials are better injected into the soils. She clarified, she will not say this is an end all be all, but she was receiving the phone calls, and talking with MDA and others, and they have received very, very few complaints this year that they are aware of when it comes to the smell and odors and such.

Mr. Holloway thanked Ms. Porter for coming in. He said Council has received questions about the reason the tank was put in, and was for storage between December 15 and February 28, and that is why the tank was needed, to which Ms. Porter responded, yes, that is one of the reasons. Mr. Holloway said, in the correspondence Council received, it was said they were filling the tank up even other times of the year, to which Ms. Porter responded, again, she will not speak on behalf of anybody with the tank, but she does not believe there is any time where it said it would only be used during that timeframe. She clarified, as a matter of fact, as she mentioned previously, when they have the tank in a central location in a central area, it allows for them to be able to move that product and apply that product in a faster manner, even during times when it is not being used to be put on the fields. She said she does not

believe there was any indication made that it would only be used to store at that point in time, and only be used to remove it at that point in time, but that is one of the main reasons why it was built.

Mr. McCain asked how come the processing plants do not have these tanks at their facilities, to which Ms. Porter responded, she will not be able to answer on behalf of the companies except to say, for some of them, they may not have the land for it. She said the other piece of it is the farmer is the one who is using it. She said, thinking about commercial fertilizer, they have all of these materials, but for many of the grain farmers they want to have that product located on their farm so they can use it when they are ready to use it. Mr. McCain said Ms. Porter keeps mentioning that, but the users, particularly in this County, are pretty large farmers, and distribute this all over the County, and it is not getting put in the field next door. He explained, they are literally going from the western half of the County to the eastern half of the County, so there is quite a bit of distribution in terms of the distance required, so it is hardly a factor of it being in their backyard on their farm. Ms. Porter said it is on the fields they till, to which Mr. McCain responded, of course they put it on their fields, but his point is it is not all just being done locally within a couple miles of the tanks, they literally transport it. He said it is a fact that they transport it from the western side of the County to the eastern side of the County because they have fields all throughout the County. Ms. Porter then asked if there is one processing plant in the County, to which Mr. McCain responded, he is talking about the farmers who are putting this on the fields. Ms. Porter said she does not understand Mr. McCain's question, to which Mr. McCain responded, there are DAF tanks and then they put it on the fields, but they are not putting it on the fields that are just around where those tanks are located. Ms. Porter said that is correct. She said there is a large grain farmer with commercial fertilizer and a tank in one location, and they are putting that throughout wherever their fields are. Mr. McCain clarified, his point is that Ms. Porter has repeatedly said they are putting it close to where these tanks are located, to which Ms. Porter responded, she guesses they are also putting it near where the processing plants are located. Mr. McCain said, in some cases yes, but in some cases no.

Mr. McCain said his other question has to do with whether this is a fertilizer, to which Ms. Porter responded, it is a soil amendment. She said soil amendments and fertilizers both fall under the Maryland Department of Agriculture, and the State Chemist approves them. Mr. McCain said it is obvious that in a lot of these cases the fields are a place to dispose of this product because they have to empty the tank. He said they make their money by getting rid of the product, and they have to dispose of this product. Ms. Porter said the material is being used on crops. Mr. McCain said he literally lives next to a field where this is applied, and no crop has been harvested in three years from that field, to which Ms. Porter responded, she is not aware of that. He said the crop is planted after the DAF is applied, but never harvested, and that is not the only case. He said this happens a lot because the money is in the tank, and the more they keep that tank full for storage, they have to dispose of the product. He said some of the arguments people have made speaking before Council is there is a lot more of this product than what is needed on the fields, so they are looking for places to dispose of the product. Ms. Porter said the only thing she can say to that is, again, the Maryland Department of Agriculture and Nutrient Management Plan would determine how much can go onto a field based off of the crop that is being planted.

Mrs. Acle said what she is hearing from citizens on the westside of town is that this is a public health concern, and they have received quite a bit of conflicting information, or they feel as though they have. She said, being from Western Pennsylvania and not growing up around farms or chickens, she has them

call her every time they have an issue with the tank on the westside of town, and she will tell Ms. Porter that the tank is filled to the top. She said she absolutely witnessed it, and when they are mixing it, it is up there, and it is a very large tank. She then asked, she knows Ms. Porter cannot really speak to the specific tank, but what is the best approach for Council to help manage this problem, to which Ms. Porter responded, again, she is not here as enforcement or regulatory, so, if there are issues or concerns, she is not aware of those, first of all. She said, second of all, she guesses it would be a matter of contacting the farmer to better understand what the issue or problem is because, again, she has not seen that, so she cannot even speak to what is and is not happening, or what is and is not right. She clarified, what she is really here to speak to is what this product is, what a tank is that would be used, and why it is used. She said for her to sit here and say how it has been used, she is not there every day, and she is not seeing that. She said she thinks if there are questions for public health, that could be directed to public health, and she does not think she has a really good answer on that specifically.

Mrs. Acle said Ms. Porter mentioned some other alternative ways to dispose of this, and things other companies have done. She then asked if that is infrastructure that could be placed after a tank is built, to which Ms. Porter responded, again, she will clarify, none of these are operational. She said there is a lot of research and groups looking, but nothing is up and running and operational at this point in time, though there are some she thinks are closer to having some operational aspects. She said those are long-term, and they are hopeful for a number of reasons, whether for DAF, or whether for poultry litter, but there is nothing operational at this moment, so she cannot say what would and would not work.

Mr. Cannon thanked Ms. Porter for being here. He said he thinks part of the confusion of what Mr. McCain was asking and what Ms. Porter was trying to present is the DAF tanks are not a commercial or industrial operation; whereas, the person who owns that DAF tank cannot sell and distribute it all over the County, it has to go on that individual's property, as he understands it, so he thinks that is what Ms. Porter was trying to stress when she said it has to be applied locally. He clarified, a farmer can have a farm 10 miles down the road in a completely different section. Mr. McCain added, or fields they lease, to which Ms. Porter responded, fields that are under their control. Mr. Cannon said he thinks that might be the difference in what they were talking about. He said, with DAF, they noticed the same thing they did with the poultry industry where a lot of times they will find a compilation of issues; whereas, so many people came in here and were concerned about the poultry houses, and when they had many public comments, they were actually talking about the odor of the manure being spread on fields, and he thinks they are seeing a lot of the same thing here. He said there was a huge reaction when the DAF tank first went up with concerns about flies and odor, and he does not know about the flies, but he can see where there is some odor. He said he thinks there was also the concern of many about the odor when it was being spread on the fields, but the DAF tank was the one issue where they pointed at that item, and it was a tangible issue, but he thinks the bigger concern to the community as a whole might be the process of spreading it. He said he brings that up because there are two processes, and one is easier to do than the other, and there are also chemicals that can be applied when it is being spread that is a little more expensive, but it can also help reduce the odor. He then asked Ms. Porter if she knows whether or not the industry is planning to look towards those types of standards to maybe give some type of relief to the homeowners, and he understands the Right to Farm Act. Ms. Porter responded, again, as she mentioned, they are using chemicals right now as they speak, and, again, the summer is not over, and not to say Council is not still hearing, but they have not heard the complaints, and they

have been utilizing this material all spring and summer long, just like they were the past couple of years. She said, again, there is a combination of things that have taken place, number one, again, is the type of equipment that was used. She said she thinks Mr. Cannon is talking about the different methods, and oftentimes it depends on the crop that it is going onto. She said, when it is being utilized for corn, there is a different method than, for instance, if it was being utilized for turf. She said some of the original equipment that was used on turf caused some streaking in it, and for anybody who is paying big money for turf, they do not want streaking in their grass, essentially. She said, again, this equipment that was purchased has actually been able to be utilized on turf as well. She said it gives some better injections so the materials go more into the ground. She said they are not certain if that is the thing that seems to have had less people calling this year, but both things have been utilized, both adding chemicals for the material itself, as well as the equipment that is used, and how it is used. She said hopefully it is working, but Council can correct her if there are more complaints that she is just not aware of.

Mr. Holloway said he wants to go back to Mr. McCain and Mr. Cannon's conversation. He then asked if Ms. Porter is saying the only place this is being spread is on a farm field of a person who owns the tank is leasing or owns, to which Ms. Porter responded, it is used on the grounds that are under management by the farmer, ultimately. Mr. Holloway asked, which farmer, to which Ms. Porter responded, the farmer who is leasing the ground. She said, again, she is not here to talk specifics about one specific tank or one specific farmer, although, obviously, that is the big issue. She said, if a farmer says they want to build this tank, just like if a farmer says they want to build a tank to hold commercial fertilizer, they are using that commercial fertilizer on the grounds they have under their control, whether it is by lease or by farming, and basically, they cannot sell that material. She said, if they were to have some extra fertilizer and sell it to the neighbor down the road, that is when it becomes commercial, to which Mr. Holloway responded, but that is what is happening. He clarified, they are putting it on other people's fields, and they had that situation on Dagsboro Road. Ms. Porter asked if it is being sold, to which Mr. Holloway responded, he does not know. He said he does not know what their financial situation is, to which Ms. Porter responded, and she does not either. Mr. Holloway clarified, but it is not just going on the property the person who owns the tank controls or leases, it is going on turf farms, and he just wants to clear that up. He said he thinks there was a little misunderstanding in the conversation there.

Mr. Hastings said they reached out to the Department of Agriculture, the Department of Environment, and others to be here, but they still never have given a response or taken the time to come here, and Council has been dealing with this issue for a year now. He said they have had a lot of citizens come in and speak about this, and a lot of folks who are probably watching right now. He said he told some of the citizens that he would grab some of their questions and bring them to Ms. Porter. He clarified, he has spoken with Ms. Porter before, and Ms. Porter has answered a bit of this, but, for the broader public, he will ask some of those questions. He then asked what is able to be put into the DAF tank, to which Ms. Porter responded, again, this is an on-farm storage tank, so it would be whatever criteria falls into that on-farm storage tank, so she is not sure what the question is. Mr. Hastings clarified, a lot of citizens are concerned there will be mutilated poultry biproduct put in there in addition to manure, and they have heard all sorts of stuff, so he does not know if Ms. Porter wants to take a moment to actually say what can be put into a DAF tank itself, to which Ms. Porter responded, again, it depends on what the tank was built for. She said, for instance, a manure storage shed is built to hold chicken litter, and is designed in a specific way to hold chicken litter. She said any type of tank is designed specific to what it

is holding, so, again, an on-farm storage tank holding commercial fertilizer is going to look different than an on-farm storage tank of chicken litter or dairy manure. She said she is not sure she can answer that question except to say what an on-farm tank is being built for would be based upon what it is holding. Mr. Hastings asked if it has to be an open tank, and he thinks that is referring specifically to the one that is here, but do they have to be open, or can they be closed off, to which Ms. Porter responded, they can have both options. She said they are able to be open, and NRCS standards allow for it, and she thinks there are options where they can be closed. Mr. Hastings asked if the DAF material is slow release or quick release when it comes to nutrient density, to which Ms. Porter responded, she does not know that. Mr. Hastings asked if there are specific requirements for how DAF material is incorporated into the soil, to which Ms. Porter responded, she does not know that. Mr. Hastings asked if Ms. Porter is aware of any studies when it comes to the health impacts as far as mosquitos and flies that drop in the tank, to which Ms. Porter responded, she is not aware of any. Mr. Hastings thanked Ms. Porter for taking those questions that would normally be passed onto the State of Maryland, and said he thinks they are still trying to do that, but he also wants to thank DPI. He said 30 years ago he was hanging out at DPI events, and they have always been a good group, and he appreciates Ms. Porter's leadership.

Mr. Taylor said he has a comment just to kind of put ground to a rumor he heard because of regulations of this product in Delaware and Virginia. He said the Lower Shore, this County, and, to some extent, Dorchester, have become kind of a focal point for it flowing in, and he is talking about the DAF material, and he thinks a lot of it is processed in Linkwood, so Wicomico County is getting, essentially, product from these other States because they have regulations that are somewhat different. He said that is kind of one part of it, but the other is how the other Counties Ms. Porter knows of are handling this tank situation. He said the story they heard a year or so ago was that the tank here in Hebron was kind of a byproduct of being turned down in Dorchester County. He then asked how that has been resolved? Ms. Porter responded, the States have different laws and regulations on the material and the use of it. She said, to Mr. Taylor's point of it coming from Linkwood, they do not have a chicken processing plant in Linkwood, so she is not aware of that. She said where it is specifically coming from she cannot talk to, but each of the three States DPI represents have different rules and regulations on how it is used, and it is used in other States as well, it is just a matter of the regulations. Mr. Taylor asked if Ms. Porter has any idea if they are significantly different, to which Ms. Porter responded, it is regulated under different protocols at the State level. She said she does not know the ins and outs, but, from some of her brief conversations with MDE and MDA, she thinks they are happy to answer specific questions, so maybe if there is a specific list of questions to send them, they would be able to look at the rules and regulations. She said, as for the Counties, as with anything with Planning and Zoning, all Counties have their own specific Planning and Zoning rules and regulations, and really it is based upon what those County's rules and regulations are. She said she is not aware of any additional tanks at this point that are being looked at being permitted, but that is not to say there are not any. She said, again, each of the Counties, based upon their own Planning and Zoning rules, would determine whether or not the tank would be able to be used. Mr. Taylor asked if there has been any change in Dorchester, to which Ms. Porter responded, not that she is aware of. Mr. Davis said Worcester County has a tank, and it is in the ground.


Mr. McCain thanked Ms. Porter for being with Council. He said he knows they have had a lot of questions for her, but that is good because they are trying to gather as much information as they can, and she has been very helpful.

Mr. Dodd said it would be nice to have the regulatory agencies here. He said Ms. Porter has answered some of the questions, but Council still has some that are unanswered, and maybe they will get those answered. He thanked Ms. Porter for being here.

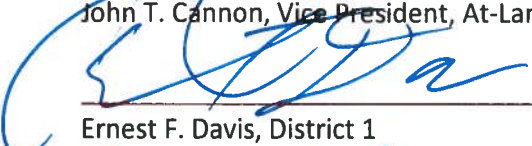
Mrs. Hurley said she reached out to MDE and MDA to attend this Work Session today. She said they were not able to have a representative attend, but they said they were open to questions, so Council can definitely forward them any questions they have. Mr. Dodd said it would be nice to see them in person. There was no further discussion.



Larry W. Dodd, President, District 3



John T. Cannon, Vice President, At-Large



Ernest F. Davis, District 1



Nicole Acle, District 2

Josh Hastings, District 4



Joe Holloway, District 5



William R. McCain, At-Large



Laura Hurley, Council Administrator