

**Responsiveness Summary to public comments on the  
Stardust Dairy draft Permit to Install and draft Permit to Operate**  
October 21, 2009

On August 4, 2009, the Ohio Department of Agriculture issued a public notice of the Stardust Dairy draft Permit to Install and draft Permit to Operate. This public notice opened the public comment period on the draft permits and informed the public that a public meeting would be held on September 8, 2009 to accept comments. The comment period ended at 5:00 p.m. on September 15, 2009.

The Director's final decision on these draft permits must be made in accordance with the laws regulating and facts contained in the permits. According to Ohio Administrative Code 901:10-6-04, information presented during the public comment period shall be limited to the criteria and information that are applicable to the permit application that is the subject of the public meeting. Ohio Revised Code Section 903.09 states that the Director is to hear comments pertinent to the draft permits. The Ohio Department of Agriculture considers pertinent comments to be comments relating to the draft permits and the way in which the draft permits comply with the ODA rules. Public comments also need to relate to issues under the regulatory control of the Director of Agriculture. The Ohio General Assembly has not given the Director of Agriculture unlimited control. The Permit to Install and the Permit to Operate are environmental permits covering issues pertaining to water pollution control such as manure management, construction of manure containment structures, containment of stormwater runoff, insect and rodent control, mortality, and emergency response.

Comments about large-scale farming in Ohio, about other farms in Ohio, or other permits will not be considered as comments that pertain to these draft permits. Comments about roads, taxes, property values, and air quality are not under the regulatory control of the Director of Agriculture and will not be considered as comments that pertain to these draft permits.

Oral and written comments are taken word for word with no editing (other than some corrected spelling and grammar). Similar comments are grouped and summarized.

No.	Date Received	Name	Organization, if any	City, State
1	8/5/09	Daniel Drake		Washington CH, OH
2	9/8/09	James Tope		Mt. Sterling, OH
3	9/8/09	Steve Smallwood	City of Washington CH	Washington CH, OH
4	9/8/09	Joseph Burbage	City of Washington CH	Washington CH, OH
5	9/8/09	Ron Cress		London, OH
6	9/10/09	Ron Moore		Jeffersonville, OH
7	9/14/09	Jana & Ircel Knedler		Washington CH, OH

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**1. Contamination of Wells and Streams from Manure Application**

*They speak of having ample storage for the waste but they cannot define how the impact of the waste on the ground can keep from polluting the wells and streams for miles around.*

*We're concerned about the possible contamination of Paint Creek Water Shed from the Stardust Dairy Farm due to the land application of manure.*

**Response:**

Manure is to be applied using best management practices (BMPs) and in accordance with ODA rules, with the intent to replace more soluble chemical fertilizers that are currently being utilized to provide nutrients on the same cropland. Ohio Administrative Code rule 901:10-2-13 requires that soil samples be taken every three years for every 25 acres or less of the planned land application area, to determine the amounts of nutrients present in the soil. The most recent results of these samples are provided in the Manure Management Plan (MMP) of the permit to operate. The land application of manure under the control of a CAFF must also follow setbacks to protect waters of the State. For instance, a setback of 35' of vegetative buffer or 100' if not vegetated is required for all surface manure application in Appendix A, Table 2 of rule 901:10-2-14 to help protect waters of the State.

ODA also requires that the results of manure sample analyses be kept in the operating record and provided to all persons receiving or applying manure. Twice each year, an ODA inspector conducts a full inspection and correlates the MMP with the data recorded in the Operating Record, such as the crop yields, annual manure analysis, and new soil samples collected. See OAC 901:10-2-10 for manure and OAC 901:10-2-13 for soils and testing frequency.

Application rate criteria are set forth in ODA's rules, and all of these criteria are evaluated to determine what the most limiting factor for the field is at the time of application. The application rate criteria include but are not limited to the nitrogen needs of the crop being grown, phosphorus, and the available water capacity of the soil. See OAC 901:10-2-14. Based on this evaluation, the permitted application rate is determined, and that application rate is used for that period of application. Generally, the most limiting factors are the nutrients evaluated and, for liquid manure, the Available Water Capacity (AWC) of the soils in the field. The AWC is often the most limiting factor for a single time liquid manure application because the water holding capacity of the soil may be achieved in a single application before the allowable nutrients are applied. For further analysis of the Available Water Capacity chart, refer to Appendix B of rule 901:10-2-14. In addition, depending on the time of year, additional nitrogen limitations are evaluated, as provided in ODA rule 901:10-2-14(D). Additional criteria also heavily restrict application on frozen or snow-covered ground, as provided in ODA rule 901:10-2-14(G).

Another requirement of manure application is looking at soil conditions. According to OAC 901:10-2-14 Appendix A, Note 11, the migration of liquid into tiles through cracks in the soil is to be controlled by disturbing the top 3-5 inches of soil, monitoring the tile outlets and/or plugging the tile outlets. All tile outlets must be visually inspected during

and after application, and if for some reason liquid manure would reach tile lines, tile plugs or tile stops must be available and utilized to block the tile lines and avoid impact on waters of the state.

As described in rule 901:10-2-14(E), either the agronomic rate (based on crop needs) for phosphorus application shall be used or an environmentally protective rate of phosphorus application shall be used, which includes the phosphorus risk assessment procedures listed in the appendices to rule 901:10-2-14. ODA rule 901:10-2-14(E)(2)(b) specifically states that “The application rate of phosphorus shall not exceed the rate provided in appendix C, table 1 or appendix D, tables 1 to 5 of this rule, unless following the procedures in paragraph (E)(3) of this rule.” The tables referenced and found in appendix C and D of this rule describe the crop needs and crop removal for phosphates, based on a given crop, yield, and specific soil test value. Paragraph (E)(3) describes the phosphorus risk assessment procedures, which determine the potential for phosphorus applied in excess of crop needs, to run off to surface waters. OAC 901:10-2-14(E)(3)(a) provides that a site where phosphorus is to be applied in excess of crop needs can be evaluated using either of two different phosphorus risk assessment procedures: the Phosphorus Index (P-Index) Risk Assessment Procedure (described in Appendix E, table 1) or the Phosphorus (P) Soil Test Risk Assessment Procedure (described in Appendix E, table 2).

Weather must be recorded for a period 24 hours before, during and 24 hours after manure applications to ensure that rainfall will not cause manure to leave the application site. OAC 901:10-2-14(C)(6). Land application of manure shall not occur if the forecast contains a greater than 50% chance of precipitation of an amount of one half inch or more for the period of twenty four hours after the start of land application.

Following these BMPs and ODA rules will minimize any potential impact to the watersheds where the manure will be utilized. However, in the event of a discharge, the Dairy is required to immediately notify ODA of any discharge, begin immediate remediation and corrective measures to stop further discharges, collect samples of discharges and allow ODA to inspect and test. Enforcement measures, including fines and penalties, are provided in rules and statute to address violations.

## **2. Water Sampling**

*Does the farm permit require periodic water sampling from Paint Creek to microbial pathogens, we've already found out, no, that's not the case, so I suppose that would be our responsibility.*

### **Response:**

Scheduled stream sampling is not required in the Stardust Dairy permit. They are required to have an annual well water test performed. Stream sampling occurs only when there is a possible discharge.

## **3. Location of Application Fields**

*What farm fields in the Paint Creek watershed are approved for land application?*

### **Response:**

Maps of the application fields are available in the permit. These may change from year to year.

#### **4. Monitoring of Application**

*Who's responsible for the monitoring of the application of manure and if the set backs were obeyed?*

**Response:**

It is the responsibility of the permit holder and the applicator to follow the proper setbacks when applying manure. If there is a complaint or a discharge an ODA inspector will investigate whether the setbacks were followed.

#### **5. Certified Applicator**

*I guess you guys already told us that it's a certified applicator, but has he had any violations in the past, what's his history? We don't know.*

**Response:**

Stardust Dairy is not required to use any specific certified applicator, however the applicator used most often by Stardust Dairy is Joe Beam. Prior to becoming a certified applicator Joe had been responsible for manure discharges from land application sites. At the time of the discharges Joe was not under the regulatory control of the ODA. Due to the volume of manure Joe was applying, the ODA had sent him letters stating that he was required to become certified and that he would no longer be allowed to apply manure from ODA permitted farms until he had become certified. To become certified he was required to take both the core and elective training classes. Joe completed those training requirements and received his certification from ODA on August 6, 2009. Now that Joe has received his certification he will be required to keep all land application records listed in Rule 901:10-2-16 (B) and his records will be inspected at least once per year by an ODA inspector. Joe will also be required to follow all land application restrictions listed in Rule 901:10-2-14 Appendix A, Table 2. To maintain his certification Joe will be required to take 10 continuing education credits every 3 years. Since Joe has become certified Joe has had no discharges from land application sites.

#### **6. Contact Information**

*In the event that the city (Washington C.H.) would like to know and be informed who the responsible person is if a contamination event should occur. In other words, who can we contact on the farm or who on the farm will contact us?*

**Response:**

In response to this comment, the City of Washington Court House will be added as an Emergency Response contact, and its contact information will be placed in the Permit to Operate. The City can contact the permittee by using the contact information provided on the General Information pages of the permit, or the City can call ODA to request contact information should the need arise.

#### **7. Financial Responsibility**

*If we would happen to be shut down for a long period of time, it would be a very major financial burden on the City of Washington Courthouse. If we would have to introduce new technology, ozonation to deactivate to crytosporidium or any nanofiltration, a different filtration system, you're talking in the millions of dollars that it would affect the*

*City of Washington Courthouse. And we want to know, is there any recourse if one of those events would happen that was negligence on the part of the farm? Who's responsible financially for that? I mean is it shared responsibility or is it entirely our responsibility?*

**Response:**

If contaminants were found in the water it would be the responsibility of the city to determine the source. There are many possible sources for cryptosporidium. If Stardust Dairy was found to be responsible for any contamination it would be a legal issue between the city and the facility.

**8. Mortality**

*Such large herds of animals are subject to unusual levels of disease, animal welfare care and on-going carcass disposal problems.*

**Response:**

As described in the Mortality Management Plan, the normal disposal method for mortality chosen by the Stardust Dairy is composting. For a catastrophic mortality event, composting will also be utilized for disposal. The Emergency Response Plan describes the catastrophic mortality response plan, while the Mortality Management Plan is intended to explain normal mortality loss.

Use of mortality composting has increased by the livestock industry due to the disappearance of rendering plants, concerns over potential ground water pollution from burial, and the economic and environmental issues associated with incineration. Composting of dead animals is an option that is available to all Ohio livestock producers. Composting is a natural process in which the animal carcass is bio-degraded by bacteria to avoid pollution of air and water.

The process of composting dead animals allows bacteria and fungi to decompose the animal carcasses in an aerobic environment. By providing oxygen to this environment, the microbes are able to decompose the animal without the production of objectionable odors and gases. When done properly, composting destroys disease causing bacteria and viruses and limits problems associated with flies, vermin, and scavenging animals at the composting site.

Before beginning to compost livestock mortalities in Ohio a person must meet the following requirements:

1. Adhere to all federal, state, and local laws, rules and regulations.
2. Secure any permits necessary to install structures and for proper management of the facility.
3. Attend a Certification Course offered by Ohio State University Extension.

See also an OSU paper reviewing mortality composting at: <http://www.oardc.ohio-state.edu/ocamm/Keener-Maine%20Mortality%20Paper%205-24-05.pdf>

## 9. Flies/Odors

*This year the flies have been much more of a presence and when the wind comes from the NW the smell is awesome.*

### **Response:**

An Insect and Rodent Control Plan is required as part of the draft Permit to Operate to minimize the presence and negative effects of insects and rodents. OAC 901:10-2-19 sets forth all of the elements that may be included as part of any Plan along with all of the actions and the suggested frequency of actions to be taken to implement the Plan. Once the applicant chooses elements, actions, and action frequency (intervals) from the rule to be part of the Plan, then those choices officially become enforceable requirements of the Plan and the Permit to Operate. Put another way, the rule serves as a sort of “menu,” but once the entrée on the menu is ordered, the entrée is the meal and the diner cannot make changes to the meal without review and approval.

The draft Permit to Operate contains the complete Insect and Rodent Control Plan. The Insect and Rodent Control Plan for Stardust Dairy includes daily monitoring and recording of fly levels, with treatment consisting of spraying and bait stations. Rodent bait stations will be monitored monthly for increased activity and refilled as necessary. Actions taken – monitoring, spraying, baiting, and inspections – must be documented by the dairy in its Operating Record. The Insect and Rodent Control Plan would be subject to routine and complaint inspections by ODA. Inspectors would determine if the plan was being followed as documented in the Operating Record, determine the levels of insect or rodent populations at the farm, and inspect the facility. If the permits are not followed, the farm could be subject to an enforcement action by ODA. Additional control measures could be required if problem levels occur.

Rules for insect and rodent control at concentrated animal feeding facilities are fairly unique to Ohio. For the scientific sources of this rule, ODA examined ORC Chapter 921 for pesticides use; OAC Chapter 901:3 for Sanitary Regulations for Foods, Dairies, and Drugs; Natural Resource Conservation Service Pest Management, March 2001; and recommendations from Richard L. Berry, Ph.D., BCE, in his position with the Vector-borne Disease Program, Ohio Department of Health. Dr. Berry and his colleagues gained considerable expertise on pest control at concentrated animal feeding facilities due to mismanagement at the former Buckeye Egg Farm, which gave rise to enforcement proceedings that required ODH’s expertise.

BMPs to minimize odors are identified in the Manure Management Plan of the draft Permit to Operate and listed in Ohio Administrative Code Rule 901:10-2-12. The BMPs identified to be used at Stardust Dairy include removal, transfer, and application of manure when wind direction is less likely to affect neighboring residences and injecting and incorporating manure when possible (i.e.: not on a growing crop, etc.).

Odor is something that will be evaluated during routine inspections and complaint investigations. Inspectors would determine if the permit was being followed and if the odor was occurring as a result of the producer not following best management practices. If the permits are not followed, the farm could be subject to an enforcement action by ODA.

### **10. Background Check**

*I don't think he's planning on changing, but if something would come up,(change hands) would they have to go through the same process that Frank is going through now.*

#### **Response:**

If the current owner/operator were to seek to transfer the permit to another person, both parties would have to seek permission for the transfer from ODA pursuant to Section 903.05(C) of the Ohio Revised Code. Any new owner or operator would have to go through an environmental background check as part of this process, and Section 903.05(C) authorizes the Director of ODA to deny transfers where the proposed transferee has a history of substantial noncompliance with environmental laws. Any new owner/operator would have to follow all of the requirements set forth in the permits.

**ODA has not responded to the following comments due to the comments are on issues that are not under the regulatory control of the Director of Agriculture or the comments are not specific to the draft permits.**

1. Air Quality
2. Animal Welfare
3. Property Values
4. Pathogens
5. Number of Expansions

### **Changes from Draft Permit to Final Permit**

1. Contact information for the City of Washington Court House has been added to the Emergency Response Plan