

**Responsiveness Summary to public comments on the  
New IJsselstein Dairy draft Permit to Install and draft Permit to Operate  
March 26, 2008**

On September 26, 2007, the Ohio Department of Agriculture (ODA) issued a public notice of New IJsselstein Dairy's 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 October 30, 2007, to accept comments. The comment period ended at 5:00 p.m. on November 6, 2007.

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.

Presented below are the comments made during the public meeting on October 30, 2007, and received by mail and e-mail. Similar comments are grouped and summarized.

No.	Date Received	Name	Organization, if any	City, State
1	10-11-07	Doris Gabel		Fremont, OH
2	10-12-07	Gregory Edwards, DVM	Napoleon Veterinary Clinic	Napoleon, OH
3	10-12-07	Brian Harr, DVM	Napoleon Veterinary Clinic	Napoleon, OH
4	10-12-07	Kate Colliflower, DVM	Napoleon Veterinary Clinic	Napoleon, OH
5	10-13-07	Dave & Jill Tippett		Gibsonburg, OH
6	10-15-07	Mary Torok		Gibsonburg, OH
7	10-15-07	Charles Nopper	Madison Township trustee	Gibsonburg, OH
8	10-15-07	Linda Aspacher		Toledo, OH
9	10-15-07	Mary J. Hernandez		Woodville, OH
10	10-17-07	Daniel Laity		Elmore, OH
11	10-17-07	Tom Wicks		Woodville, OH
12	10-18-07	Mary Smith		Gibsonburg, OH
13	10-18-07	Mildred Sedlmeier		Woodville, OH
14	10-19-07	Dale Clark		Woodville, OH
15	10-22-07	Virginia Rahe		Gibsonburg, OH
16	10-22-07	Helen Pierce		Helena, OH
17	10-22-07	Lonnie Mendoza		Gibsonburg, OH
18	10-22-07	Becky McCarthy		Woodville, OH
19	10-22-07	Lawrence McCarthy		Woodville, OH
20	10-22-07	Britt Bowe		Columbus, OH
21	10-22-07	Robert & Clara Heineman		Woodville, OH
22	10-22-07	Fred Bursiek		Gibsonburg, OH
23	10-22-07	Robert Baker		Elmore, OH
24	10-22-07	Carol Baker		Elmore, OH
25	10-23-07	Laura Ruggiero, Councilwoman	Village of Gibsonburg	Gibsonburg, OH
26	10-24-07	Walter Webb		Woodville, OH
27	10-24-07	Marilynne A. Webb		Woodville, OH
28	10-24-07	Ralph Clink		Gibsonburg, OH
29	10-26-07	Suzanne Giesler		Elmore, OH
30	10-26-07	Marilynne A. Webb		Woodville, OH
31	10-29-07	Matt Wonderly		Helena, OH
32	10-29-07	Mike, Jean & Robert Wonderly		Helena, OH
33	10-29-07	Roger Swinehart Sr. & Brenda Baker		Fremont, OH
34	10-29-07	Roger Riehm		Elmore, OH
35	10-29-07	Lonnie Mendoza		Gibsonburg, OH
36	10-29-07	Erma Gallagher		Kansas, OH

37	10-29-07	Sid Davisson		Fremont, OH
38	10-29-07	Mary Beam		Woodville, OH
39	10-29-07	Karol Courtney		Fremont, OH
40	10-29-07	Mrs. Rita Brown		Gibsonburg, OH
41	10-29-07	Jane & Robert Aldrich		Helena, OH
42	10-29-07	Nancy Sullivan		Cincinnati, OH
43	10-29-07	Robert Baker		Elmore, OH
44	10-29-07	Carol Baker		Elmore, OH
45	10-29-07	Tim Sadoski		Elmore, OH
46	10-30-07	Carl Schuh		Gibsonburg, OH
47	10-30-07	Lynn Henning		Clayton, MI
48	10-30-07	Terry Krukemyer		Pemberville, OH
49	10-30-07	Larry Shue		Woodville, OH
50	10-30-07	William Gallagher		Gibsonburg, OH
51	10-30-07	Darrell Opfer		Oak Harbor, OH
52	10-30-07	Don Prey		Luckey, OH
53	10-30-07	Paul Runion		Woodville, OH
54	10-30-07	Nan Smith		Woodville, OH
55	10-30-07	John Steinmetz		Woodville, OH
56	10-30-07	Ty Tracey	Woodville Council	Woodville, OH
57	10-30-07	Tom Younker		Gibsonburg, OH
58	10-30-07	Bob Kline		Helena, OH
59	10-30-07	Mark Buck		Gibsonburg, OH
60	10-30-07	Susan Fisher		Gibsonburg, OH
61	10-30-07	Butch Fork		Woodville, OH
62	10-30-07	Rich Harman, Mayor	Village of Woodville	Woodville, OH
63	10-30-07	Laura Ruggiero	Village of Woodville	Woodville, OH
64	10-30-07	Joseph Marchica		Woodville, OH
65	10-30-07	David Pasch		Helena, OH
66	10-30-07	Eleanor Hahn		Clyde, OH
67	10-30-07	Betty Riehm		Elmore, OH
68	10-30-07	Roger Riehm		Elmore, OH
69	10-30-07	Karen Peck		Gibsonburg, OH
70	10-30-07	Tom Stuckey		Woodville, OH
71	10-30-07	Dwight Wise		Fremont, OH
72	10-30-07	Philip Trumbull		Woodville, OH
73	10-30-07	Fred Bursiek		Gibsonburg, OH
74	10-30-07	Paula Fahle		Lindsey, OH
75	10-30-07	Tom Hiser		Gibsonburg, OH
76	10-30-07	Ted Bowen		Woodville, OH
77	10-30-07	Judy Reino	SCCPR	Gibsonburg, OH
78	10-30-07	David Pollick	Sandusky County Health Department	Fremont, OH
79	10-30-07	Kathleen Kampe		Woodville, OH
80	10-30-07	Kris Gerwin	SCCPR	Gibsonburg, OH

81	10-30-07	Mike Young	SCCPR	Gibsonburg, OH
82	10-30-07	Robert Meyer		Woodville, OH
83	10-30-07	Bill Hammer	Woodville Board of Public Affairs	Woodville, OH
84	10-30-07	Stephen Younker		Gibsonburg, OH
85	10-30-07	Linda Meyer		Woodville, OH
86	10-30-07	Sharon Aldrich	SCCPR	Woodville, OH
87	10-30-07	Vickie Askins		Cygnnet, OH
88	10-30-07	Karen Havens		Woodville, OH
89	10-30-07	Glenn Baker		Lindsey, OH
90	10-30-07	Dave Rinehart		Gambier, OH
91	10-30-07	Lorraine DeVenney		Woodville, OH
92	10-30-07	Donald Rozick		Woodville, OH
93	10-30-07	Edward McCabe		Gibsonburg, OH
94	10-30-07	Don Scheekelhoff		Leipsic, OH
95	10-30-07	Mark Damschroder		Gibsonburg, OH
96	10-30-07	Peter Miller		Kansas, OH
97	10-30-07	Edith McCoy		Gibsonburg, OH
98	10-30-07	Kathy Barbee		Gibsonburg, OH
99	10-30-07	Theodore Heckman		Milan, OH
100	10-30-07	Danny Brubaker		Helena, OH
101	10-30-07	Linda Aspacher		Toledo, OH
102	10-30-07	Lorraine DeVenney		Woodville, OH
103	10-30-07	Sandy Bringman		Woodville, OH
104	10-30-07	Mr. & Mrs. Jack Vincent		Gibsonburg, OH
105	10-30-07	Tamilyn Shean		Elmore, OH
106	10-30-07	Peggy Rodriguez		Woodville, OH
107	10-30-07	Alejandro Rodriguez		Woodville, OH
108	10-30-07	Meghan Rodriguez		Woodville, OH
109	10-30-07	Charlie Nopper		Gibsonburg, OH
110	10-30-07	Longino Mendoza		Gibsonburg, OH
111	10-30-07	Jean Mendoza		Gibsonburg, OH
112	10-30-07	Michael Lincicome		Elmore, OH
113	10-30-07	Robert & Patricia Kline		Helena, OH
114	10-30-07	Sue Hoffman		Gibsonburg, OH
115	10-30-07	Martin Hoddinott		Gibsonburg, OH
116	10-30-07	Jennifer & Timothy Gebes		Risingsun, OH
117	10-30-07	Daniel Barbee		Gibsonburg, OH
118	10-30-07	James M. Brien		Woodville, OH
119	10-30-07	Tom & Mary Noe		Woodville, OH
120	10-30-07	Linda R. Andrews		Woodville, OH
121	10-30-07	William Andrews		Woodville, OH
122	10-30-07	Suzette & John Steinmetz		Woodville, OH
123	10-30-07	Mark Buck		Gibsonburg, OH

124	10-30-07	Kurt Stevenson		Woodville, OH
125	10-30-07	Carrie Kanipe		Canal Winchester, OH
126	10-30-07	Joshua Kanipe		Los Angeles, CA
127	10-30-07	Evan Kruse		Woodville, OH
128	10-30-07	Harold Hill		Gibsonburg, OH
129	10-30-07	Ken Aspacher		Toledo, OH
130	10-30-07	Linda Aspacher		Toledo, OH
131	10-30-07	Carl Schuh		Gibsonburg, OH
132	10-30-07	Mary Ottney		Gibsonburg, OH
133	10-30-07	John Bresler		Bloomdale, OH
134	10-30-07	Larry Askins		Cygnets, OH
135	10-30-07	Vickie Askins		Cygnets, OH
136	10-30-07	Jerald Baumgardner		Custar, OH
137	10-30-07	Michael Young		Gibsonburg, OH
138	10-30-07	Carolyn Young		Gibsonburg, OH
139	10-30-07	Leota Bishop		Helena, OH
140	10-30-07	Mark Bishop		Helena, OH
141	10-30-07	Leonard Reino		Gibsonburg, OH
142	10-30-07	Judy Reino		Gibsonburg, OH
143	10-30-07	Tom Younker		Gibsonburg, OH
144	10-30-07	Linda Brubaker		Helena, OH
145	10-30-07	Robert Kline		Helena, OH
146	10-30-07	Patricia Kline		Helena, OH
147	10-30-07	Elfriede Stahl		Risingsun, OH
148	10-30-07	James N. Thrasher		Risingsun, OH
149	10-30-07	Michelle Thrasher		Risingsun, OH
150	10-30-07	Jen Gebes		Risingsun, OH
151	10-30-07	Tim Gebes		Risingsun, OH
152	10-30-07	Wendy Morgan		Risingsun, OH
153	10-30-07	Robert L. Klotz		Risingsun, OH
154	10-30-07	Jody Clark		Helena, OH
155	10-30-07	Holly Tyson		Helena, OH
156	10-30-07	Bart Tyson		Helena, OH
157	10-30-07	Linda Meyer		Woodville, OH
158	10-30-07	Robert Meyer		Woodville, OH
159	10-30-07	Eleanor A. Hahn		Clyde, OH
160	10-30-07	Clair Aldrich		Woodville, OH
161	10-30-07	Sharon Aldrich		Woodville, OH
162	10-30-07	Stephen Younker		Gibsonburg, OH
163	10-30-07	Danny L. Brubaker		Helena, OH
164	10-30-07	Tom Kline		Gibsonburg, OH
165	10-30-07	Cathy Kline		Gibsonburg, OH
166	10-30-07	Elvin Jones		Helena, OH
167	10-30-07	Virginia P. Moll		Gibsonburg, OH
168	10-30-07	James W. Moll		Gibsonburg, OH
169	10-30-07	Deborah Wingert		Fremont, OH

170	10-30-07	Andrew Deam		Gibsonburg, OH
171	10-30-07	Fred Bursiek		Gibsonburg, OH
172	10-30-07	Linda L. Bursiek		Gibsonburg, OH
173	10-30-07	Helen Hill		Gibsonburg, OH
174	10-30-07	Betty Hovis		Risingsun, OH
175	10-30-07	Elvin Jones		Helena, OH
176	10-30-07	William E. Toller		Helena, OH
177	10-30-07	Karen Toller		Helena, OH
178	10-30-07	Roger Gilbert		Helena, OH
179	10-30-07	Tina R. Manuel		Helena, OH
180	10-30-07	Jenny King		Helena, OH
181	10-30-07	Jean Gegman		Burgoon, OH
182	10-30-07	Shirley Bilger		Helena, OH
183	10-30-07	Robert Heminger		Helena, OH
184	10-30-07	Jerry Swaisgood		Helena, OH
185	10-30-07	Linda Swaisgood		Helena, OH
186	10-31-07	Suzette Steinmetz		Woodville, OH
187	10-31-07	Gail Lazzaro		Woodville, OH
188	10-31-07	Clark Allen		Woodville, OH
189	11-01-07	Stephen L. Younker		Gibsonburg, OH
190	11-01-07	Montressa Younker		Gibsonburg, OH
191	11-01-07	Sue Dorsey		Fremont, OH
192	11-01-07	Kathy Gonya		Fremont, OH
193	11-01-07	Marian Miller		Fremont, OH
194	11-01-07	Ruth Davies		Gibsonburg, OH
195	11-01-07	Carol & Jeff Miller		Fremont, OH
196	11-01-07	Keith & Patty Copley		Gibsonburg, OH
197	11-01-07	Virginia Andrews		Woodville, OH
198	11-01-07	Judith Frank		Woodville, OH
199	11-01-07	Nancy Fisher		Millbury, OH
200	11-01-07	Mrs. Norman Avers		Woodville, OH
201	11-01-07	Wilma Obermyer		Woodville, OH
202	11-01-07	William Obermyer		Woodville, OH
203	11-01-07	Jeff Baker	Sandusky County SWCD	Fremont, OH
204	11-01-07	Linda Andrews		Woodville, OH
205	11-01-07	Ronald Bosch Sr.		Millbury, OH
206	11-01-07	James & Janice Strickler		Helena, OH
207	11-01-07	Nancy J. Fisher		Millbury, OH
208	11-01-07	Steven & Brenda Bennington		Woodville, OH
209	11-01-07	Ted Bowen		Woodville, OH
210	11-01-07	John & Sharon Kinkaid		Fremont, OH

211	11-02-07	Susan A. Fisher		Gibsonburg, OH
212	11-02-07	Nancy Fisher		Millbury, OH
213	11-02-07	Steven & Krista Paul		Gibsonburg, OH
214	11-02-07	Mr. & Mrs. Walby		Gibsonburg, OH
215	11-02-07	Mr. & Mrs. Kelli		Gibsonburg, OH
216	11-02-07	Chad & Erin Fleming		Gibsonburg, OH
217	11-02-07	Mr. & Mrs. Escobedo		Gibsonburg, OH
218	11-02-07	Joseph M. Angelone		Gibsonburg, OH
219	11-02-07	Calvin & Justine Magsig	Sugar Creek Protection Society	Woodville, OH
220	11-02-07	Ronald Bosch Sr.		Millbury, OH
221	11-02-07	Louisa Dompier		Oregon, OH
222	11-02-07	Paul Manuel		Toledo, OH
223	11-02-07	Cathy Darr		Port Clinton, OH
224	11-04-07	Carol Toner		Woodville, OH
225	11-05-07	Jean Mendoza		Gibsonburg, OH
226	11-05-07	Jeff Lydon	Farm Sanctuary	Watkins Glen, NY
227	11-05-07	Robert Kline		Helena, OH
228	11-05-07	Robert Meyer		Woodville, OH
229	11-05-07	Patricia Dawson		Gibsonburg, OH
230	11-05-07	Linda Bruebaker		Helena, OH
231	11-05-07	Danny Bruebaker		Helena, OH
232	11-05-07	Joyce Bower		Gibsonburg, OH
233	11-05-07	Alice Suisel		Gibsonburg, OH
234	11-05-07	Linda Meyer		Woodville, OH
235	11-05-07	Diane Schuh		Gibsonburg, OH
236	11-05-07	Kathleen Kanipe		Woodville, OH
237	11-05-07	Robert Kline		Helena, OH
238	11-05-07	Linda Bursiek		Gibsonburg, OH
239	11-05-07	Fred Bursiek		Gibsonburg, OH
240	11-05-07	Jean Mendoza		Gibsonburg, OH
241	11-05-07	Lonnie Mendoza		Gibsonburg, OH
242	11-05-07	Lana Picciuto		Gibsonburg, OH
243	11-05-07	Sharon Linke		Helena, OH
244	11-05-07	Chris Lucki		Woodville, OH
245	11-05-07	Roberta Witt		Williston, OH
246	11-05-07	Jennie Frazier		Curtice, OH
247	11-05-07	B. Frazier		Curtice, OH
248	11-05-07	Teresa Hart		Oregon, OH
249	11-05-07	Virginia Hart		Curtice, OH
250	11-05-07	Denise Frazier		Toledo, OH
251	11-05-07	Rick Frazier		Toledo, OH
252	11-05-07	Katrina Dawson		Gibsonburg, OH
253	11-05-07	Mark Frazier		Toledo, OH
254	11-05-07	Janeen Ramiez		Toledo, OH
255	11-05-07	Sharon Sutton		Lindsey, OH
256	11-05-07	Lori Bouldin		Woodville, OH

257	11-05-07	Glen Drafahl		Woodville, OH
258	11-05-07	James Stewart		Woodville, OH
259	11-05-07	Dave & Erika Wellons		Woodville, OH
260	11-05-07	April Hammer		Gibsonburg, OH
261	11-05-07	Larry & Vickie Askins		Cygnets, OH
262	11-05-07	Joyce Bower		Gibsonburg, OH
263	11-05-07	Richard Kinney		Weston, OH
264	11-05-07	Karen Peck		Gibsonburg, OH
265	11-05-07	Claire Aldrich		Woodville, OH
266	11-05-07	Carolyn Young		Gibsonburg, OH
267	11-05-07	Patricia Dawson		Gibsonburg, OH
268	11-05-07	Michael Young		Gibsonburg, OH
269	11-05-07	Thomas Younker		Gibsonburg, OH
270	11-05-07	Gary Dawson		Gibsonburg, OH
271	11-05-07	Heath Liskai		Gibsonburg, OH
272	11-05-07	Karen J. Peck		Gibsonburg, OH
273	11-05-07	Allen C. Peck		Gibsonburg, OH
274	11-05-07	Jeff Tate		Woodville, OH
275	11-05-07	Mary Jo Bosch		Millbury, OH
276	11-05-07	Ann Cain		Gibsonburg, OH
277	11-05-07	June Barger		Delaware, OH
278	11-05-07	Fred E. Bursiek		Gibsonburg, OH
279	11-05-07	Linda L. Bursiek		Gibsonburg, OH
280	11-05-07	Carolyn Young		Gibsonburg, OH
281	11-05-07	Bob Rickard	Village of Woodville	Woodville, OH
282	11-05-07	Allen Peck		Gibsonburg, OH
283	11-05-07	Charles Nopper		Gibsonburg, OH
284	11-05-07	Sharon Aldrich		Woodville, OH
285	11-05-07	Ella M. Hunter		Oak Harbor, OH
286	11-05-07	Bill Hammer		Woodville, OH
287	11-05-07	Robert L. Meyer		Woodville, OH
288	11-05-07	Linda Meyer		Woodville, OH
289	11-05-07	William & Dewanna Myers		Woodville, OH
290	11-05-07	Dan & Sharon Liskai		Woodville, OH
291	11-05-07	Thomas Stuckey		Woodville, OH
292	11-05-07	Jeffery & Gwen Jones		Gibsonburg, OH
293	11-05-07	Kathy Duffey		Woodville, OH
294	11-05-07	Donald J. Rozick		Woodville, OH
295	11-05-07	Edward Herman, Mayor	Village of Gibsonburg	Gibsonburg, OH
296	11-05-07	Michael Fork, Councilman	Village of Gibsonburg	Gibsonburg, OH
297	11-05-07	Mark Lauer, Councilman	Village of Gibsonburg	Gibsonburg, OH
298	11-05-07	Laura Ruggiero, Councilwoman	Village of Gibsonburg	Gibsonburg, OH

299	11-05-07	James Krotzer, Councilman	Village of Gibsonburg	Gibsonburg, OH
300	11-05-07	Richard Harman, Mayor	Village of Woodville	Woodville, OH
301	11-05-07	Leonard Reino		Gibsonburg, OH
302	11-05-07	Judy Reino		Gibsonburg, OH
303	11-05-07	David Pasch		Helena, OH
304	11-06-07	Tony Piccuito		Gibsonburg, OH
305	11-06-07	Longino Mendoza		Gibsonburg, OH
306	11-06-07	John Kruse		Woodville, OH
307	11-06-07	Katherine Hinrichs		Woodville, OH
308	11-06-07	John Hammer		Gibsonburg, OH
309	11-06-07	Aimee Hammer		Gibsonburg, OH
310	11-06-07	Carl Schuh		Gibsonburg, OH
311	11-06-07	Sharon Aldrich		Woodville, OH
312	11-06-07	Tom Schank	Hunter & Schank Co. LPA	Toledo, OH
313	11-06-07	Marsha Overmyer	Sandusky County Health Department	Fremont, OH
314	11-06-07	Barb Liskai		Woodville, OH
315	11-06-07	John Hoesman		Woodville, OH
316	11-06-07	Michael Brocke, M.D.		Woodville, OH
317	11-06-07	Richard & Linda Potts		Gibsonburg, OH
318	11-06-07	Debbie Chimahusky		Fremont, OH
319	11-06-07	Jane Chimahusky		Fremont, OH
320	11-06-07	Robert Schroeder	Woodville Township Trustee	Gibsonburg, OH
321	11-06-07	Ginny Roessner		Gibsonburg, OH
322	11-06-07	Timothy Swan		Elmore, OH
323	11-06-07	John Kruse		Woodville, OH
324	11-06-07	Deb Schack		Elmore, OH
325	11-06-07	Sandy Bihn	Western Lake Erie Waterkeeper	Oregon, OH

**Comments received after the public comment period.**

326	11-07-07	June Ramirez		Gibsonburg, OH
327	11-07-07	Roger Riehm		Elmore, OH
328	11-07-07	Betty Riehm		Elmore, OH
329	11-07-07	Lori & Tim Hepler		Woodville, OH
330	11-07-07	James D. Stewart		Woodville, OH
331	11-09-07	Elisia Kanipe		Washington, DC

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## 1. Ground Water Pollution

### a. Leakage

Many comments were received expressing concerns about manure leaking through the clay liner and soil and into local drinking water supplies.

*“We had a hearing last night and we had 3 engineers speak. They all informed us that clay liners will leak. The soil is compacted so the leak will be slower. One said that he spoke with the engineer who will design the lagoon to contain the waste. He said that it may be 8 years before it leaks! What are the people in the village of Woodville to do at that point? There will be only a few feet between the bottom of the lagoon and the aquifer. This could pose a very dangerous situation for the people in the area. We need to have good clean water to survive.”*

*“The Ohio Administrative Code 901:10-2-08(A) says, ‘A manure management plan is a plan developed to minimize water pollution and protect waters of the state.’ First, that sounds very contradictory; on one hand you are admitting that there is going to be water pollution but on the other hand you say you want to protect the waters of the state? My question: Please help me understand ‘minimize water pollution!’ How do you propose that the IJsselstein Dairy monitor the water aquifer for pollution? What safeguards - certainly not clay-lined manure pits - must be in place prior to operation to insure that the aquifer does not become polluted?”*

*“I am concerned with the engineering solution to the lack of separation required by the initial permitting process of 15 feet of ground between the bottom of the manure pits and our water aquifer. Based on information provided at the meeting, in places the separation is only four feet. The solution to allowing the permit is to ignore the 15 foot requirement or recommendation (which is it?) and instead design a clay lined pit which the manure supposedly will not permeate.”*

*“From various accounts I have read of these clay liners, they are not 100% reliable and can develop leaks. This is worrisome to me since these pits will be a relatively short distance from quarries where blasting occurs regularly. I know my own house shakes from these blasts. This makes me wonder how the clay lined walls of a manure pit are going to not develop cracks and leaks. Once our aquifer is contaminated by manure, there will be no way to undo this.”*

*“At the public meeting an individual spoke who indicated that even an ODA engineer acknowledged that the clay lined manure pits would probably start leaking in 8 years. Is this statement accurate as to the position of ODA? If not, please explain what the ODA’s position is as to leaking when it comes to the 48” recompacted clay liners proposed by New IJsselstein. Does the ODA agree that at some point in time the clay lined manure pits will likely leak? Why does the ODA feel that 48” of recompacted clay is sufficient to protect drinking water from contamination?”*

*“They state that engineers have misunderstood the basic principles that explain how chemicals move through clay. It is a shocking and embarrassing revelation: the civil engineering profession has failed to understand the most fundamental mechanisms controlling clay liners.*

*“Chemicals move through clay in two basic ways. Advection and diffusion. Advection is the normal movement of fluids through Clay. Fluids pass through the spaces between grains of soil as if those spaces were pipes. The more pressure, the faster the fluids will pass thru the pipes.*

*“However, Advection flow is not the only means by which fluids flow through spaces between grains of clay. The second means is called ‘diffusion.’ All molecules are in constant motion; this motion is what we call heat. Hotter molecules are moving more rapidly than cooler molecules and due to the motion of heat; molecules tend to move from a more concentrated solution to a less concentrated solution. As a consequence of this, the concentrated chemicals in the lagoon tend to move through the bottom clay liner even if there is no pressure pushing them downward.*

*“What has been done to eliminate this ‘Diffusion’ and the leakage due to it? What is the calculated time the ODA has calculated for MTBF. Time before Failure of one drop of fluid in to the aquifer? How much is allowed to leak? Considering the proximity to Woodville is this safe and prudent?”*

*“OAC 901:10-2-06(9)(C) sets forth specific liner requirements to protect ground water. The New IJsselstein permit does not include any of these stricter liner requirements. The liners proposed by New IJsselstein will not protect the ground water. The liner's great for a fishing pond, but not for a pond intended to hold fecal matter and urine in karst areas where the entire community's drinking water could be contaminated.”*

*“He (Gary) stated to me that according to go their calculations and the permeability of the soil, average compacted and everything, that that soil liner will prevent that sewage from getting into our aquifer in eight years. It's not designed to indefinitely protect us. I mean, we assume that the nuclear power plants are going to protect us indefinitely that these things are engineered to that. It's engineered and designed to leak into our aquifer in eight years, as little as eight years.”*

*“I've been told that all ponds leak; and, these would be designed for a minimum of 8 years till they would leak. So, why would you even put these CAFO's in before there is a leak-proof system developed? How will the pond ‘liners’ be tested, how often, and by whom? Are the liners replaced after 8 years? If not, why not?”*

*“Manure tanks do leak and the clay liners that are proposed for these facilities are not expected to be successful because of the effect of temperature changes on clay liners. I understand that this permit has required higher requirements on the liners of the storage pits of this facility. What studies have been completed to show that the extra layer of clay will be sufficient to contain the manure in this facility?”*

*“A review of the first round comments dated 9-20-06 in the portion noted as "Geological Exploration" the ODA notes indicates that travel time calculations through the liner material to the limestone are to be provided so that comparisons of different types of liners can be done.*

*What were the travel time calculations for each of the types of liners?*

*What were the results of each of the comparisons that were done?*

*What were these comparisons used for?*

*What type of liner is being used at New IJsselstein?*

*What is the basis for you determining that the type of liner being used at New IJsselstein is the best type for a karst area?"*

**Response:**

Bedrock is located a minimum of 9.4 feet below the bottom of the proposed manure storage facilities. ODA rules specify that a minimum of 15 feet of low permeability material be present between the bottom of the ponds and the uppermost aquifer, with 3 feet of that material having a hydraulic conductivity not to exceed  $1 \times 10^{-7}$  cm/sec. If this is not present at the site, then the design must incorporate additional design criteria that must be reviewed and approved by the Director. The standard of 3 feet of soil with a permeability not to exceed  $1 \times 10^{-7}$  cm/sec and no ground water monitoring has been used by ODNR Division of Soil and Water Conservation and the USDA-Natural Resources Conservation Service for 30 years without any problems of groundwater contamination.

Because the proposed New IJsselstein Dairy site does not have 15 feet of low permeability material between the bottom of the proposed manure storage ponds and the uppermost aquifer, the dairy has been designed to incorporate additional design criteria, including ground water monitoring, to protect water quality. Travel time calculations are provided in Appendix L of the Geological Report in the PTI that demonstrate how the additional design criteria proposed for this site are as protective as ODA's minimum standards set forth in rule. The manure storage ponds at this site will be constructed with an additional liner system consisting of a 4-foot recompacted soil liner that will be constructed to achieve a permeability not to exceed  $1 \times 10^{-7}$  cm/sec. ODA rules do not require that the liner be completely impervious, and most liners, including plastic or geosynthetic liners, are not considered impervious. The calculated time of travel for the ODA minimum of 3 feet of  $1 \times 10^{-7}$  cm/sec clay liner and 12 feet of low permeable soil at  $1 \times 10^{-5}$  cm/sec (for a total of 15 feet of separation) is 4.7 years. The calculated time of travel for the New IJsselstein Dairy ponds is 7.8 years with 4 feet of recompacted clay and 5.4 feet of existing material based on the in-situ soils. The time of travel calculation for the New IJsselstein ponds thus exceeds the time of travel calculation for the ODA minimum established by rule.

A properly constructed soil liner acts as a very slow filtering mechanism for the organic nutrients associated with dairy manure. Such a liner does not allow suspended solids to move through it and serves to remove dissolved solids associated with manure through chemical reactions between the soil and the dissolved solids. For instance, ammonia is a positive charged ion, while clay particles in soil are negatively charged. Being oppositely charged ions, these ions attach to each other, preventing movement of the ammonia through the clay liner. Organic solids that collect on the bottom of the pond also physically clog and further reduce the permeability of the recompacted soil liner. The eight years referred to in the permit is a calculated travel time for clean water through the clays with the higher pressure of a full pond. Under normal operating conditions, the pond would be filling and emptying throughout the year resulting in varying pressures. The natural filtering action of the clays, plugging activity of the fibers and biological activity in the clays will result in a cleansing action being performed on the liquid.

The site will also incorporate a groundwater monitoring system that will be implemented as part of the Permit to Install. Generally, groundwater is sampled from a well existing at

the facility that is used to provide water for the animals. However, this site will have an additional network of wells, consisting of a minimum of four down-gradient and one up-gradient, that will be sampled twice annually for nitrate, total phosphorus, E. Coli and field pH, field specific conductivity and field temperature. After the wells have been installed, water samples will be taken and recorded prior to ODA granting authority to the facility to use the manure storage structures.

Several other permitted facilities have been approved, or are in operation, that have a groundwater monitoring system because the manure storage or treatment facilities were constructed within 15 feet of a potential aquifer, thus requiring that additional criteria be added to the design. To date, all groundwater monitoring that has been completed at these sites has not detected pollutants at increased levels.

ODA's rules were developed, reviewed and recommended by a diverse group of scientific professionals, including representatives of the ODNR Division of Soil and Water Conservation, Division of Water, and Division of Geological Survey; United States Geological Survey (USGS); USDA Natural Resources Conservation Service and Agricultural Research Service; and the Ohio EPA Division of Surface Water and Division of Drinking and Ground Waters. The rules were challenged but upheld in *Citizens Against Megafarm Dairy Development, Inc. et al. v. Dailey*, 2007-Ohio-2649, Franklin County Court of Appeals, 10th District, May 31, 2007.

As discussed in 1b below, New IJsselstein Dairy's manure storage and treatment facilities are not located in a karst area.

### **b. Karst Geology**

Many comments were received concerning the location of karst geology.

*"The karst features and sinkholes dramatically increase the risk of ground water contamination from the 2,200 dairy cows that are estimated to create waste at the same rate as 50,600 people."*

*"The ODNR recommends that animal feedlots, manure pits and other sources of bacterial contamination not be located in karst areas near sinkholes."*

*"A review of the first round comments dated 9-20-06 in the portion noted as 'Geological Exploration' the ODA notes that the dairy is in or near a karst area and the karst features are close enough to put the dairy in a position to institute additional safety features. What additional safety features were required to be implemented because of the proposed dairy being in a karst area? How do these additional safety features differ from typical safety features? Will these additional safety features protect ground water from contamination? Assuming the answer is yes, how and why, did you come to this conclusion? Have such safety features ever been implemented before in a karst area? What factual data can you provide that the safety features are adequate to protect ground water?"*

*"The proposed location for the New IJsselstein Dairy is in a karst area less than 1/2 miles from the Village of Woodville. The ODA acknowledges that this is a karst area in its 1st Round Comments dated 9/20/06 wherein it states '... the EPA karst map shows that the*

*dairy is in or near a probable karst area and the karst features that are shown on Appendix F are close enough to put the dairy in a position to institute additional safety features.’”*

*“Attached is an excerpt from OEPA’s Drinking Water Source Protection Area Delineation Guidelines and Process Manual, Revised March 2007, that explains how OEPA delineates protection areas in karst regions, and how those areas will be revised. The OEPA must be given an opportunity to complete the karst redelineation outlined in 3.2.5.3. prior to any permit being issued to New IJsselstein Dairy. The karst redelineation must be done and the permit reviewed for adequate safety features in a DWSPA, including the liner requirements that protect groundwater set forth in OAC 901:10-2-06(A)(9)(c).”*

*“In addition to the phosphorous issues the proposed Hillbex Factory Farm and this one violate agency recommendations that a factory farm not be located in karst geology. Though O.D.A. has tried to engineer around this issue, it simply cannot. I worked on the Envirosafe Commercial Hazardous Waste Landfill and the company and the engineers said that the permeability rate was one foot per hundred years. Fifteen years later, site investigations show the permeability to be closer to one foot per year.”*

*“Even the EPA has advised not to place an operation like this in a karst area.”*

*“Karst limestone fractures extremely easily leading to the CAFO's pollutes to leach into the local creeks. Once in the creeks, the pollutants will flow into the Portage River which will flow into Lake Erie, thereby affecting the entire Great Lakes Region.”*

*“New IJsselstein Dairy draft permit includes notations that it is to be located in a karst area. The requirements set forth in 901:10-2-06(A)(11) of the Ohio Administrative Code indicate that manure storage ponds or manure treatment lagoons constructed in karst areas must be designed to prevent seepage of manure into the groundwater. Further, based upon the geological exploration completed by the ODA, any portion of the manure storage pond or manure treatment pond that is located below the pre-construction soil surface level must be constructed utilizing a rigid material such as concrete or steel or a properly designed clay or synthetic liner. Given the fact that the New IJsselstein Dairy is located in a karst area, why has the ODA failed to require New IJsselstein adhere to the strict standards of lagoon construction and manure storage ponds to ensure that no seepage of manure into the groundwater occurs?”*

*“Pursuant to the recommendations of the Ohio Department of Natural Resources set forth in its webpage, animal feedlots, manure lagoons, and other potential sources of bacterial contamination should not be located near sinkholes. Because of the proposed location of New IJsselstein Dairy in a karst area with noted sinkholes identified, this totally contradicts the recommendations of the ODNR who recommends that animal feedlots not be located near karst areas with sinkholes. Why would the ODA authorize a permit in direct contradiction with the ODNR?”*

**Response:**

The manure storage and treatment facilities proposed at New IJsselstein Dairy will not be located in a karst area. ODA and OEPA staff inspected the New IJsselstein Dairy site and

found no evidence of karst features on or near the New Ijsselstein Dairy. The geological explorations done on the site did not reveal any karst features. Probable karst areas are shown on a map in Appendix F of the Geological Report. Several possible karst features were identified by aerial photography to the north and northwest of the site of the proposed dairy and some karst features identified on the maps were found not to actually exist. In addition, groundwater monitoring and additional design criteria are included as part of the Permit to Install.

### **c. Water Source Protection Area**

Concerns that OEPA is going to redraw Woodville's water protection area.

*"New geological data to be released by the U.S. Geological Survey would place the New Ijsselstein Dairy within the wellhead protection area of the Village of Woodville. This raises the potential for contaminating the drinking water wells of the Village of Woodville. There is also an inherent conflict of interest by the Ohio Department of Agriculture in the New Ijsselstein Dairy permit to install and operate process. For these reasons I am asking that the Ohio Department of Agriculture either deny the New Ijsselstein Dairy permit or impose a moratorium in issuing the New Ijsselstein permit to install and operate so that this new geologic data can be adequately studied by the Ohio Department of Agriculture, Woodville Township, and the Village of Woodville."*

*"When the Drinking Water Source Protection Area (DWSPA) was last calculated back in 1997, incorrect geological data was used. If the correct geological data had been used, the dairy would be in Woodville's DWSPA."*

*"At the meeting last night the ODA stated that the dairy is not in Woodville's DWSPA. Technically, that is true. But we all know that is only true because of incorrect geological data being used in calculating the DWSPA. The Ohio EPA has acknowledged the incorrect calculations and has provided the Village of Woodville with a map showing the true DWSPA if the calculations had been done correctly. The statement that the dairy is not in Woodville's DWSPA is a "technicality"; the reality is, it is in Woodville's DWSPA. The OEPA knows the true geology of the area and where the true DWSPA is, that is why they are very concerned about contamination."*

*"Explain if the Dairy can apply manure to fields in a Water Source Protection Area."*

*"A review of the first round comments dated 9-20-06 in the portion noted as 'Purdue Manure Management Plan' the ODA notes indicate that the manure management plan will be changed due to the aquifer protection area. What is the aquifer protection area for the New Ijsselstein dairy? Why were these changes necessary? Were these changes actually implemented and corrected in a new manure management plan? What were the changes that were in the new manure management plan? How did the ODA determine what the aquifer protection area would be?"*

*"The Ohio EPA has stated that both Caffos in Sandusky County was not recommended because of the Karst area and both facilities, being located in WSPA's. The engineering map of N Ijsselstein shows part of the site and the discharge in a WSPA and the OEPA will be redefining the area around Woodville and when completed it will encompass the entire proposed dairy."*

**Response:**

All manure storage and treatment facilities proposed at New IJsselstein Dairy are not within any ground water source protection areas for public water systems. ODA rules do not prohibit manure application in a ground water source protection area. However, OEPA currently does not allow manure from a CAFF to be applied to land within a ground water source protection area. The ODA informed New IJsselstein Dairy of the OEPA rules, which resulted in the dairy making changes to its manure management plan. These changes were reflected in the draft permit.

**d. Leakage Detected**

*“How would the ponds be repaired?”*

*“What action will be taken if leakage has been determined?”*

*“What do they do for an emergency such as the manure pond leaking?”*

*“What is the protocol if contamination is found during routine groundwater sampling? Who takes the samples? An ODA inspector or the operator? Are residences in the immediate area notified? Are samples taken from the residences in the immediate area? Is the local Health Department notified?”*

**Response:**

If an increase in pollutants is detected in the groundwater from the monitoring wells, then a further investigation will be completed by the dairy. A groundwater assessment plan has been added to the final permit and can be found in Appendix K of the Geological Report. For each sampling event, the dairy shall determine whether or not there is a significant increase of parameter concentrations compared to the historical background data. If an increase is determined to be verified, the dairy will begin an assessment monitoring program, which shall determine the rate, extent and magnitude of the impact upon the groundwater. Once the extent and magnitude of the impact is determined, the dairy is required by the groundwater assessment plan to submit a corrective measures plan to ODA for review and approval. The plan shall outline the remediation options and processes to be utilized.

While the groundwater assessment plan requires the dairy to conduct an investigation, ODA is entitled by law to collect water well samples from regulated facilities for purposes of investigation. If the sampling results raise a concern for neighbors or a public water supply, then neighboring residences and the appropriate state or local agencies (such as Ohio EPA or local health departments) would be contacted for assistance and for cooperation. The local health department retains authority to collect samples from private wells within the scope of its regulatory jurisdiction.

**e. Monitoring of Ground Water**

*“I’ve read that the manure storage pits often have clay liners and none are even monitored for leakage. There should be more extensive preventative programs for these potential problems, because after these farms are up and running it will be too late.”*

*“A review of the first round comments dated 9-20-06 in the portion noted as ‘Geological Exploration’ the ODA notes that the dairy is to provide ground water monitoring. What is the ground water monitoring program the director has approved for New Ijsselstein? How is the ground water monitoring being done? Who will be doing this ground water monitoring? How often will this ground water monitoring be done? Will this ground water monitoring information be available to the public? In the event the ground water monitor indicates there is leakage, what steps will be taken to stop the leakage? Will the public be informed if the ground water monitoring indicates there is leakage? How will the public be informed of the leakage?”*

*“Also attached are the Drinking Water Source Protection Provisions in Ohio Rules. It is noted under Concentrated Animal Feeding Operations (Livestock Environmental Permitting Program) that manure storage and treatment facilities in DWPSA that include public water systems where the public water system uses ground water as the source of its water, i.e. pumps water from wells, that certain restrictions apply. The Village of Woodville pumps water from wells to supply drinking water to all of the residents of the Village of Woodville. The notes in these Rules state as to CAFOs ‘These activities are prohibited in the indicated areas unless ODA finds the structure will be at least as protective as the other requirements of the rule.’ ODA cannot find that the New Ijsselstein fabricated structures, manure storage ponds or manure treatment lagoons are ‘at least as protective as other requirements of the rules’, because the liners have not been designed and constructed consistent with the ODA rules and regulations related to additional or alternative liner protections for ground water protection. The Director can determine that installation of an additional liner is required to protect groundwater pursuant to the provisions of OAC 901: 1 0-2-6(A)(9)(c). Requiring the clay liner proposed by the dairy to be used in combination with flexible plastic membranes is just one example of a proactive safety precaution that New Ijsselstein could take to ensure that the Village wells are not contaminated. They have not chosen to take this or any of the other alternative liner protections.”*

*“Why weren't monitoring wells required around the entire site, the lagoons, and dumping sites for the manure?”*

*“The ODA rules for CAFOs require yearly groundwater sampling and 2 facility inspections per year. These are not adequate enough to detect problems on a timely basis.”*

*“At the end of 5 years they need to stop storing raw sewage and prove the bottom of the cesspool does not leak, after all a few more feet down and it is into the limestone zone and who knows where it will end up? Why not, the ODA wants to be a good watchdog, this is a good time. Instead of monitoring 150 feet to the side of the cesspool (where a leak may not ever be detected), why not monitor under the cesspool (where a leak will first show up), we have the technology in capped industrial super fund sites, in the state of Ohio.”*

*“The estimated amount of manure is 29.8 million gallons - I assume per year though the fact sheet does not provide the time frame. ODA proposes three storage ponds to hold the manure up to 367 days. The fact sheet does not state that any liners or ground water monitoring is required for these manure ponds. Why? Liners and ground water*

*monitoring are required for solid waste facilities - why not these? If surface and groundwater monitoring are required, the sampling should be done by an independent contractor and an OEPA licensed approved OEPA lab.”*

*“Who will be responsible for doing the groundwater monitoring? How will it be done? How often will it be done? Who will be checking to make sure the CAFO operator is doing his job honestly?”*

**Response:**

See response to comments 1a and 1d above. The depth to the uppermost aquifer is described on page 8 of the geological report that is provided in the Permit to Install and completed by North Point Engineering. The Director may require any type of additional liner system and in this case has chosen to utilize the natural clay material since it is very capable of achieving the required permeability.

The groundwater monitoring program is described in Appendix K of the geological report completed by North Point Engineering. The dairy is responsible for ensuring that samples are collected and analyzed from the monitoring wells at least twice a year. An independent lab will collect and analyze the samples. The results will be reviewed biannually by an ODA inspector and if there is a reason to question the results the ODA has the ability to retest the wells. All records reviewed by the ODA are available to the public upon request.

**f. Water Quality Testing**

*“Is any testing of water supplies prior to start up of any of these farms ever done? If not, WHY?”*

**Response:**

See response to comments 1a, 1d, and 1e above for more information about groundwater testing. Sample results from a well located at the proposed facility were required and included as part of the permit application. As required by the Permit to Install and to be completed as part of construction, groundwater monitoring wells will also be installed and baseline samples will be collected for each monitoring well prior to granting any approval to use the manure storage or treatment facilities. The facility will also be required to collect additional samples from the groundwater monitoring wells every six months afterwards. The local health department retains authority to collect samples from private wells as part of its regulatory jurisdiction.

**g. Oil Well Shafts**

Comments concerning the old oil well shafts in the area.

**Response:**

An Oil and Gas Well Spot map has been provided in the final geological report, Appendix N. However, no old, abandoned oil and gas well was identified on the site for the proposed New IJsselstein Dairy. Nevertheless, as a precautionary measure, a construction note on Sheet 2 of the engineering plans provides as follows:

“Oil and Gas Well Note: Although none have been identified, possible abandoned oil and gas wells could be located on the property. Contractor shall

use care when conducting excavations and immediately bring it to the attention of the owner if any suspect wells are located. Dairy facilities shall not be located over an oil and gas well. If a well is located appropriate adjustments will be made to the location of the dairy facility (with ODA approval) and/or the well will be properly abandoned.”

The State is responsible for assuring proper sealing and abandonment of gas and oil wells when they are found. If one is discovered, the ODNR, Division of Mineral Resources Management will be notified by either ODA, the contractor or owner of the facility and the process of sealing initiated.

#### **h. Limestone Mining**

Concerns with the history of limestone mining in the area and questions if the blasting has been taken into consideration.

*“The MAJOR concern with New Ijsselstein is the risk of contamination to the entire Village of Woodville's and the residents of Woodville Township's drinking water supply. A review of the records at Woodville's Historical Museum states that the lime plant in close proximity to the dairy, Ohio Lime Company, was originally started as The Ohio Hydrate and Supply Company in 1916. (see attached taken from the Woodville Historical Society records) In requiring additional safety features because of the karst area, did the ODA take into consideration that lime plant blasting that has occurred for a period of over sixty years from the 4 lime plants in the Woodville area? Is the ODA aware that the former Ohio Lime Company plant is on County Road 32 (aka Anderson Rd.) across the road from the dairy? Is the ODA aware that the former Ohio Lime Company plant pit where blasting with 4 tons of explosives took place regularly for over 60 years is only .2 mile from the dairy well? Is the ODA aware the GLI continues blasting in close proximity to the dairy site near the former Ohio Lime Company plant on a regular basis today?”*

*“The dairy is to be located across the road from the former Ohio Lime Plant where blasting had gone on for years, and continues today, by the current owner.”*

*“We also have a lime plant in Woodville that blasts. I live 6 miles away and can feel the shock. The lagoon will be closer. We also have a lime plant that is across from the proposed site. It is not doing business at this time, but it could become active again*

*“Martin Marietta blasts several times a week, sometimes several times a day. All the concrete in Woodville (sidewalks, basements, foundations, etc) and in the surrounding area is cracked because of the blasting. It is a way of life in Woodville and something we have had to accept.”*

*“We have tried to develop basements in this community for over 100 years. We've used concrete block, we've used poured concrete, we've used poured concrete with rerod, we've poured concrete with rerod and fiberglass reinforcement. They still crack, they still leak. So what makes us think a dirt pond will contain manure, a supply of manure for a year without cracking, without having any effect to blasting.”*

**Response:**

According to ODNR Division of Mineral Resource Management's publication, Blasting in Ohio's Quarries and Surface Coal Mines, fracturing of rock generally occurs no greater than 20 to 30 feet from any blast hole and the New IJsselstein Dairy ponds are at least 1000 feet from the quarry property. Vibrations in the home can be experienced due to ground vibrations and/or air blasts, but there is no direct correlation between how a blast feels or sounds and its potential for causing structural damage to a home.

#### **i. Comparison between Home Septic Tanks and CAFO Manure Lagoons**

Many comments discussed the federally funded program to replace failing septic systems in comparison with large dairies establishing holding ponds or manure pits in the same watershed.

*“When you buy or build a home there are strict regulations on septic and sewer. All of our waste has to be enclosed.”*

#### **Response:**

Typical septic tanks with leach fields are designed to settle out some of the solids in the septic tank and allow the remaining effluent to leach into tile lines and percolate into the soil profile, with no utilization of the nutrients that may be associated with the effluent. Septic systems in some of these areas are more than likely failing because the permeability of the soils is too low to allow the effluent to percolate as designed. Typical septic systems are designed to have as much as 500 to 1000 gallons per day absorbed on usually less than ¼ acre leach fields or well over 730,000 gallons/acre/year. Manure storage and treatment facilities at CAFFs are designed and constructed to contain liquid effluent by providing a liner system as described in the responses above. The manure is then applied to crop lands at lower application rates (for example, 13,000 gallons/acre) to allow for proper utilization and for the effluent and associated nutrients to be taken up by crops in production agriculture. Unlike septic systems, the CAFF is required to document that manure is utilized by crop uptake. This means that records are required to be kept of targeted and actual crop yields and of cropping schedules.

#### **j. Contamination of Surrounding Wells**

Many comments were received asking who would be responsible to pay homeowners should the manure pond contaminate the surrounding wells and the fresh water supply is unfit for consumption.

#### **Response:**

The investigation would have to demonstrate that the CAFF was the source of contamination, that the facility failed to comply with the laws and rules governing operation of a CAFF, and that an alternative water supply is necessary; then like anyone who causes damage to others, they could be held liable.

#### **k. Sinkholes**

*“Sink holes! We were told that there is a sinkhole on the proposed mega dairy site. Has this been investigated? Isn't this part of the disclosure process?”*

#### **Response:**

See response to 1b above (a sinkhole is a karst feature). The site has had additional geological exploration and there are no known sinkholes on the dairy site.

## 2. Ground Water Use

### a. Water Usage

*“My primary concern is the vast amount of water these animals will consume. People not mega dairies should be more important when it comes to water consumption.”*

*“My well currently produces plenty of good fresh drinking water at a very good pressure. At the level of pumping they will be doing it is very likely my well will go dry or will start producing sulfur water because of the large amount of water they will consume. Now I know that the ODA will say that I am wrong but if I am not who will pay for my fresh water again. The amount of water they will be pumping I feel is strongly underestimated and could affect the entire community.”*

*“The request for permit claims 23 million gallons of water will be needed at both Sandusky County CAFOs. Documents from major USDA and Extension Services indicate that a more realistic rate of 30 million gallons of water is more accurate and that usage can actually double during hot weather.”*

### Response:

New IJsselstein Dairy estimates that approximately 63,800 gallons per day will be used with a maximum capacity of 2,200 cows, which equates to approximately 29 gallons per cow per day. In comparison with similar type Ohio dairy facilities that have a metering system to provide a baseline on daily water withdrawal, this figure is very representative. Data collection at these other Ohio dairies shows a daily withdrawal range of 30-32 gallons per cow per day. See [http://www.oardc.ohio-state.edu/ocamm/Dairy\\_Water\\_Use.pdf](http://www.oardc.ohio-state.edu/ocamm/Dairy_Water_Use.pdf). Therefore, the daily and annual estimates are very typical of similar type facilities operating in Ohio that recycle a lot of water.

### b. Availability

Many comments were received concerning the surrounding wells going dry from the amount of water used by the dairy. The question of who would be responsible for digging new wells should the surrounding wells go dry was also raised.

*“Since New IJsselstein Dairy proposes annual water usage of 25,531,750 gallons, how does the ODA intend to ensure the ground water rights of the citizens of Scott Township as set forth by the Ohio Supreme Court in Cline v. American Aggregates; and what steps has the ODA taken to ensure that any harm caused by New IJsselstein Dairy is borne by New IJsselstein Dairy?”*

*“Where is the 29 gallons of water a day per cow going to come from?”*

*“Our water supply itself could be compromised as each of these 2200 cows requires 29 gallons of water per day, amounting to a total of 63,800 gallons of water per day!”*

### Response:

Based on 2200 cattle at 29 gallons per cow, the daily need from the aquifer will be approximately 45 gallons per minute which is far less than the 100 gallons per minute the

ODNR Division of Ground Water rates the capacity of the aquifer serving New IJsselstein Dairy.

ODA has no regulatory authority over groundwater withdrawal. If a facility has the capacity to use greater than 100,000 gallons of water per day, it is required to register with the Ohio Department of Natural Resources, Division of Water, as required by Ohio Revised Code Section 1521.16. New IJsselstein Dairy estimates a daily withdrawal rate of approximately 63,800 gallons and therefore is not required to register with ODNR Division of Water. If there are additional concerns, local government officials, in cooperation with area residents, can request ODNR's Division of Water to assist in conducting detailed studies. ODA does not, nor does any state agency, have the authority to allocate quantities of ground water among all actual or potential users. *Cline v. American Aggregates*, 1984 Ohio LEXIS 1308, allows for the reasonable use of ground water for beneficial purposes.

### **c. Water Storage**

*"The New IJsselstein CAFO must have a steady supply of 65000 gallons of water a day to clean stalls and water animals. Aside from the issue of enough water to serve the local community, confined animals must not suffer for lack of water. I attended both Sandusky County CAFO hearings and I was not reassured that a water storage plan was part of the permitting process. New IJsselstein CAFO licensing must be delayed to allow a water storage plan to be included. If New IJsselstein is unable or unwilling to provide a 30, 60, or 90 day water storage facility then the permit to build must be rejected."*

#### **Response:**

See 2b above. ODA rules do not require a water storage plan. In the case of an unexpected breakdown of the pump, the dairy will truck in water or may elect to install a second well.

## **3. Surface Water Pollution**

### **a. Flooding**

Many comments were received concerning the possibility that the manure ponds will overflow during heavy rains and from the type of flooding that occurred this past summer.

*"What will happen to our streams, rivers and lakes when the manure storage ponds overflow from rain water and run into our ditches?"*

*"IF A MANURE LAGOON RUNS OVER FROM EXCESSIVE RAINS AND GETS INTO A CREEK OR RIVER WILL THE CAFO OPERATOR BE RESPONSIBLE FOR THE CLEANUP? WILL THERE BE A CLEAN UP?"*

#### **Response:**

All manure storage and treatment facilities are required to be constructed and operated to not only contain the raw manure and process wastewater from the CAFF, but also rainfall and contaminated runoff. OAC 901:10-2-04(D) and (E) explicitly describe what has to be accounted for in sizing these manure storage or treatment facilities. The annual rainfall that falls onto the manure storage ponds and the runoff associated with normal

rainfall on contaminated areas within the production area must be accounted for in the sizing of the ponds. In addition, the manure storage ponds, whether for raw manure or contaminated stormwater, must be designed to always contain a 25-year, 24-hour storm event, to meet USEPA regulations. Under the New IJsselstein Dairy design, a majority of the contaminated stormwater will be collected in a concrete pump station, which will be pumped into manure storage pond #1. This facility exceeds design requirements in OAC 901:10-2-04 and is designed to contain a 100-year, 24-hour storm event in any of the proposed manure storage ponds while still leaving an additional 1 foot of freeboard. Therefore, this facility will not be allowed to discharge any manure or contaminated runoff from the facility up to the 100-year, 24-hour storm event.

Finally, the design capacity and operating levels established and approved in the PTI must be maintained by the facility in compliance with the rules and the terms and conditions of the PTO, which is one of the reasons that the permits are reviewed and decided upon at the same time. The PTO requires weekly inspections of liquid manure levels and periodic manure removal to maintain freeboard and an adequate manure storage capacity, especially through the months of November to March, when land application is limited.

If any facility causes a discharge to waters of the state, they may be subject not only to fines and penalties but also to cleanup costs and repair of damages. As part of the permit, any facility that has or may have a discharge, must notify ODA as well as mitigate and/or eliminate the discharge and undertake immediate steps to prevent further water quality impacts.

There were no known manure discharges from any ODA permitted facilities during the flooding this past summer. ODA inspectors followed up on all permitted dairy facilities in operation and verified the storage capacities. The proposed New IJsselstein Dairy's manure storage ponds are designed for zero discharge, up to the 100-year, 24-hour storm event. Similarly designed ponds held to that standard even during the flooding this past summer.

#### **b. Over Application of Nutrients**

Many comments that the manure would be over applied to the fields and would eventually end up in Lake Erie, undermining efforts by both the United States and Canada to improve the water quality of the lake.

*“Once in the creeks, the pollutants will flow into the Portage River which will flow into Lake Erie, thereby affecting the entire Great Lakes Region.”*

*“Sugar Creek is a high quality stream, but it is a small stream and it cannot dilute or oxygenate the wastes of a large-scale dairy.”*

#### **Response:**

Manure is to be applied using best management practices (BMPs) and in accordance with ODA rules, with the intent to replace more soluble commercial 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 final permit in the Manure Management Plan (MMP). 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.

New IJsselstein Dairy is also limited by an additional special condition relating to land application of manure on Millsdale and Dunbridge soils, which is discussed in the response to 5g below.

### **c. Stream Sampling**

*“Do your rules allow for testing of water in nearby streams, creeks, and rivers?”*

#### **Response:**

The facility is not allowed to discharge manure into waters of the State. In the event of a discharge, the Director may require samples of manure discharges from the production area as outlined in OAC 901:10-2-08(A)(4)(I)(iii) & (iv):

(iii) The director may require samples of manure discharges from the production area that may occur; and

(iv) Results of sampling and analysis shall be documented in the operating record and, for manure discharges from the production area, results shall also be recorded in the annual report submitted to the director in accordance with rule 901:10-2-20 of the Administrative Code.

ODA also has authority to collect samples and have them analyzed for investigative purposes. See Ohio Revised Code § 903.12.

### **d. Stream Sampling From Application Sites**

*“I respectfully request that if a permit is granted that conditions be attached to that permit, conditions that would secure the future of the water. Pre-testing of every ditch and creek prior to any farm accepting the waste for land application. Then testing during every season thereafter on those same lands.”*

**Response:**

ODA rules do not require testing of creeks and ditches prior or after each manure application. As a result these requirements are not included in the permit. New IJsselstein Dairy is required to operate as a no-discharge facility. OAC 901:10-2-14 also requires that the facility follow setbacks from surface waters of the State when it is applying manure to land application areas, to prevent discharges from taking place. Ditches and creeks are surface waters of the State. Also see the responses to 3b and 3c above.

**e. Stormwater/Wastewater**

*“I asked the engineer where the roof water/road surface would go and if it would drain on the property then out to the county road ditch. This was not explained very well. Why would this not go to a settlement pond first then overflow to the ditch. When I visited the Mich. dairy it was raining that day and the manure, silage fell off the tractors and wagons on the road way. The rain washed this down the drive to the township ditch.”*

*“Does the department of Agriculture ensure and or monitor wastewater from cleaning equipment and cattle is kept out of waterways? If so, how is this accomplished? If not, why not?”*

*“Chapter 901:10-2-04 (F) of the Ohio Administrative Code sets forth the criteria for stormwater pollution prevention plans. The New IJsselstein Dairy plans do not include how the dairy will maintain separation of uncontaminated stormwater runoff from contaminated water. Further the plans fail to state how it will divert stormwater runoff and roof water away from the manure storage or treatment facility or other structures in the production area. What will the ODA require of New IJsselstein Dairy to correct this failure?”*

*“Where will the rainwater from the buildings roofs be stored?”*

**Response:**

All feed stacking, manure handling areas and drives used for transport between the feed areas and the cattle are drained so that the runoff is collected and transferred to a manure pond. All precipitation not contacting the dairy manure or feed is directed to storm detention ponds and/or offsite. All wastewater from equipment cleaning is directed into a manure pond.

Any additional clean water to the system shall be minimized as much as possible. New and existing dairies continue to evaluate ways to increase the efficient use of all water and minimize the amount of unnecessary water that would come into contact with manure and thus be considered manure under ODA rules.

Without a particular area of concern noted in the comment, ODA believes the plans clearly depict how the runoff and roof water will be managed at the site and off the production area. Areas and volumes of the contaminated stormwater areas are addressed in the manure generation volume calculations as well. Any roof water from the dairy is considered to be clean water and will not be stored on the site.

#### **f. Portage River versus Sandusky River**

*“RUN-OFF: The ODA did not have the run-off correctly stated in the PowerPoint presentation. Runoff in Woodville (and Gibsonburg) goes into the Portage River, not the Sandusky River which is at least 12 miles east of Woodville - not a good start for the presentation when the ODA did not have its facts straight. If the ODA considers this inaccuracy to be ‘no big deal’ or ‘just a minor detail,’ it undermines confidence in the accuracy, reliability, and attention to detail in every aspect of the process. It raises the question ‘What other ‘detail(s)’ may have been or is (are) being overlooked?’”*

#### **Response:**

The error is acknowledged and has been corrected to identify the watershed as the Portage Watershed.

#### **4. Estimated Solids**

*“The fact sheet says that 2,600 acres are available to spread the liquid manure on. The fact sheet goes on to say that the estimated solids are 4,000 tons per year. How does 4,000 tons relate to the 29.8 million gallons? Please discuss all values in easily convertible terms. The interpretations of the statistics provided are very confusing.”*

#### **Response:**

The 4000 tons of solids are what is separated with a mechanical separator from the liquid manure thus reducing the 29.8 million gallons stored in the ponds. Both the solids and the liquid manure will be land applied.

#### **5. Manure Application**

##### **a. Landowner Permission**

*“Explain why the ODA does not require contracts between the contracting farmers and the landowners?”*

*“Parcels of land that are to receive CAFO manure from the New IJsselstein Dairy were submitted to the ODA earlier in the application process. These parcels are marked on a map obtained by Sandusky County Citizens Protecting Our Resources. Upon viewing the maps, we find that some of the parcels of land submitted are rented by farmers who have chosen to accept CAFO manure. The land owners for these same parcels have not given permission, written or otherwise, to have manure applied to their property. Therefore, this part of the application process appears to have been falsified because it is overstating the number of acres that will receive CAFO manure. Parcels of land that are actually owned by involved farmers may be receiving a higher concentration of manure to make up for the acreage that was submitted without landowner permission. This is wrong and should also be grounds for denial of any permit to install or operate.”*

*“How can the state approve the usage of 2300 acres of manure spreading on land that the dairy does not own and that any farmer can cut the contract for many reasons, the permit is based upon the fact that they will always have 2300 acres to spread manure, longterm: what if joe farmer's son does not allow the grandfather clause to take effect? Does this cancel the permit? It will not be "legal" until they have more contracts to spread.”*

*“Are landowners required to give permission to put manure on the ground or is it the one who farms the land?”*

(What are the names of) *“All of the land-owner's names & locations of the property on which the manure waste is to be spread?”*

**Response:**

Agreements between landowners and farmers are between the landowner and the farmer and are limited to the interests of these two parties, including assignment of any potential liability as between these two parties. Agreements to use the nutrients in the manure as a replacement for chemical fertilizers are generally between the dairy producer and the crop farmer. A map of the proposed land application sites along with the corresponding soil tests are part of the manure management plan in the draft permits. Typically land is lost and gained throughout the life of a permit, property changes hands and cropping schedules change. New IJsselstein Dairy will need about 2000 acres to feed their cattle and land apply their manure and will work to keep that much land in contract or adjust their herd accordingly. The purpose of the operating records is to acknowledge that land utilizing the manure may change and additional fields may be added or removed during the life of the permit. If acres are reduced the dairy will need to distribute to others or add additional acres.

**b. Legal Responsibility For Improper Manure Application**

Many comments concerning the legal liability associated with improper manure application.

*“We have a major concern with liquid manure being put on our farm. If we would allow this to happen and there was a serious violation of the manure getting into the Muscalunge Creek, which goes through the entire length of our farm into the Sandusky River, are we subject to a \$10,000 per day fine? Ohio Attorney General Marc Dann indicated to us that the land owner could be subject to a fine for such a violation -- the land owner.”*

*“Who is responsible for manure spills, the landowner, the crop farmer or the manure applicator?”*

*“IF I SIGN A CONTRACT TO HAVE THE MANURE APPLIED TO LAND THAT I OWN, WHO IS RESPONSIBLE IF THE MANURE LEACHES INTO STREAMS, CREEKS, RIVERS, ETC.?”*

**Response:**

According to Peggy Hall, OSU Agricultural & Rural Law Program, discharges and spills of waste resulting from land application create the possibility of liability through ORC Chapters 6111 [Water Pollution Control], 1511 [Agricultural Pollution Abatement Law], and 903 [Concentrated Animal Feeding Facilities] and permits. Where the applicator, landowner and livestock operator are different parties, these situations often present the question of “which party is liable?” Several factors dictate the outcome to this question: the terms and restrictions in a permit, the agreement between the parties, who has authority and control over the waste application, and the chain of events that resulted in

the discharge or spill. Clearly written agreements between the various parties could address most of these factors and help alleviate the uncertainty of liability allocation.

Looking to liability in other cases, pesticides for example, the liability goes mainly toward who caused the problem. Some of the information examined would be, were the application labels followed correctly, were proper records kept and who directed the application. If the farmer hired an applicator and the applicator misapplied and caused damages, the applicator would have the majority of the liability. If the farmer bought and applied the pesticides then the farmer would be responsible. The landowner in both cases would have minimal liability if the ground was cash rented. If the landowner was share renting and paying for the pesticides, he would or could have more responsibility.

### **c. ODA Oversight of Manure Application**

*“FARMERS WHO USE THE MANURE: What about oversight of and compliance with usage rules and regulations by the farmers who will be spreading the manure? This issue was not addressed in the presentation.”*

#### **Response:**

ODA oversees manure application through twice-per-year inspections, review of operating records, and complaint investigations. The department has regulatory authority over the facility if they are in control of the application or if the manure is applied by a custom manure applicator who is required to be a Certified Livestock Manager. If these parties are not controlling the manure application, then ODA would coordinate with other government agencies that would have the right to enforce. These agencies include Ohio EPA, ODNR-Division of Soil and Water Conservation, ODNR-Division of Wildlife, etc.

### **d. Number of Acres Actually Applied To**

*“The number of acres contracted to take the manure according to the requirements does not mean that they will use all of those acres. They will only go as far away as they have to when applying and the cases of over-application have been witnessed at many of these factory farms.”*

*“As far as the fields to put the manure on the fields, 13,000 gallons per acre, I think is some place in there. Who monitors to see if that is all that gets put on that field? They can do it today -- it says per application. But they are not going to drive any further than they have to put more manure on your fields.”*

#### **Response:**

Not every acre identified in the manure management plan will be utilized every year. This generally depends on the crop rotation of the fields that would best utilize the manure nutrients. It is anticipated that the fields located the farthest from the facility will utilize the manure solids, since the solids would be more economical to transport farther distances. Some facilities that generate solid manure broker their manure to cropland that may be in excess of 50 miles from the facility. As commercial fertilizer continues to increase in price, the economics of moving this manure, whether liquid or solid, will become more favorable in production agriculture. The crop acres located nearer to the facility are also generally those acres that will be used to grow forage crops for the dairy and will thus allow for more nutrients to be removed than a grain crop. Once the dairy is

in operation, additional acres that are closer may become available to receive manure, further reducing transportation costs.

Regardless of the economics, over-application of manure and nutrients is not allowed and all application must be in accordance with ODA rules and with the terms and conditions of the permit. See response to comment 3b above.

**e. Amount of Manure Applied**

*“How much manure can be knifed into fields before they become so saturated that the bacteria in the soil depleted the oxygen in the soil so nothing can grow”*

*“From past experience how much manure can an acre of land accept per year?”*

*“Is there a law governing how much manure a farmer can spread on his fields and how close to a house?”*

**Response:**

See response to comment 3b above. Land application setbacks are required from residences and are 300 feet if manure is surface applied and 100 feet if manure is incorporated or injected. For additional setback requirements, refer to Appendix A, Table 2 of rule 901:10-2-14 – Land Application Restrictions. Application of manure to soil increases the organic matter in the soil and thus provides positive influences on soil structure, tilth, bulk density and moisture holding characteristics instead of saturating the soil and depleting the oxygen within the soil. The amount of manure that can be applied on an acre of land varies, depending on the amount of phosphate already in the soil, the crops to be grown, and other limiting factors described in the response to comment 3b above. For example, over-application of manure to a condition that would saturate the soil with phosphate is not allowable under this permit to operate. Also, the amount of manure that can be applied is limited by the planned crop rotation and other factors described in OAC rule 901:10-2-14.

**f. Amount of Acres Required**

*“How many acres of farmland are required to dispose of the manure?”*

**Response:**

Refer to Section 5 of the CNMP, page 149, 150 and 151 of 170, Farm Nutrient Budget section of the Manure Management Plan included in the Permit to Operate. Also see the responses to comments 3b and 5e above.

**g. Shallow Soil Depth**

*“Due to the shallow soil depth of the Dunbridge and Millsdale soils and the limited filtering capability of the Dunbridge soils, we object to the use of any sites with Dunbridge and Millsdale soils for the land application of manure. We object to the use of these fields for the land application of manure unless there is field verification of adequate soil depth on site.”*

**Response:**

In evaluating USDA-NRCS standards for manure application, which were utilized to develop ODA rules and are followed by the local Soil and Water Conservation Districts

to develop CNMPs for smaller animal feeding facilities, it was determined that no standards prohibit manure application to land that may have shallower bedrock. In discussions with Soil and Water Conservation District personnel that develop CNMPs in areas that have shallower bedrock on land application sites, they have started to implement special recommendations for the producers to follow under such conditions.

In researching this concern, ODA personnel performed field evaluations of all fields in the New IJsselstein Dairy permit that were identified as having either a Millsdale or a Dunbridge soil. The purpose of the evaluation was to determine if all the acres that were mapped with these soils were capable of growing a crop, at what depth the bedrock would be encountered and if the soil survey of Sandusky and/or Wood County was consistent with field evaluations. In all fields evaluated, the location and depth to the bedrock appeared to be consistent with the soil surveys.

Based on the site evaluations and varying and shallow depths to bedrock of the Millsdale and Dunbridge soils, a special condition has been placed in this Permit to Operate that will limit the amount of liquid manure application to 5,000 gallons per acre per application event on these soils. This will apply only to the areas of the fields that are mapped in the soil survey as either Millsdale or Dunbridge. Liquid application on these soil types shall be performed by either surface application on a growing crop (i.e.: alfalfa) or if no growing crop is present, it shall be lightly tilled to a depth of 1 to 2 inches immediately prior to, or immediately following, the surface application event. Injection of manure on these soil types will be prohibited.

#### **h. Manure Application Rates**

*"A review of the first round comments dated 9-20-06 in the portion noted as "Purdue Manure Management Plan" the ODA notes indicate that certain of the manure application rates proposed were too high resulting in nutrient applications not consistent with best management practices.*

*Was New Ijsselstein dairy required to increase its land application area to assist in resolving these issues?*

*If so, where are these additional land application areas?*

*If not, how were the nutrient application issues solved?*

*Where these changes actually implemented and corrected in a new manure management plan?*

*Many of the notes indicate that the nitrogen was too high. How was the high bean nitrogen level corrected? How was the high com nitrogen level corrected? How was the high wheat nitrogen level corrected?*

*Certain of the levels of phosphorus needed to be changed to be suitable to grow alfalfa on numerous fields. What were the levels changed to? How was this accomplished?"*

#### **Response:**

The land application areas and manure application schedules changed a number of times throughout the review process in response to ODA comments on the application, including the comments dated September 20, 2006. The nutrient application rates have been adjusted to conform with ODA rules. Changes made to these rates and any changes made to the proposed land application areas in response to these and other ODA comments were reflected in the draft Permit to Operate's Manure Management Plan.

**i. Salt Build-Up**

*“How much salt is in this material that's being put on the land? What we've learned is that in Holland, by putting this manure on the land, they eventually destroy the land. They can't grow anything. Is this going to happen here just from the salt from the oversupply of nutrients?”*

**Response:**

ODA is aware of the issue of salt buildup in the soils in the Netherlands in regards to the buildup of sodium chloride resulting from much of the land originally being located below sea level. This issue is not applicable to Ohio. Regarding potassium salts, OAC 901:10-2-13(C) requires soil sampling every three years and potassium is one of the standard parameters analyzed during this testing. However, neither ODA nor USEPA rules have a limit on the maximum potassium application or soil buildup that is allowed for potassium. There is, however, a limit on both the amount of nitrogen and the amount of phosphorus that can be applied to a given field. Because manure contains nitrogen, phosphorus, and potassium, the restrictions on the amounts of nitrogen and phosphorus that can be land applied on a given field serve as an indirect limit on the amount of potassium buildup that can take place since potassium will stay within agronomic limits based on phosphate application. For instance, excessive salt build-up can limit crop yields, which in turn would reduce the amount of other nutrients (nitrogen and phosphorus) and thus the amount of manure that could be applied to a field (since if the average yields decrease, the uptake of phosphorus from the soil or and the use of nitrogen decreases meaning less manure can be applied).

**j. Time of Year**

*“At what time of the year will the manure waste be spread?”*

**Response:**

Generally in the fall, but it can be spread any time of the year, provided manure is not applied on frozen and/or snow-covered ground. Frozen or snow covered applications have special restrictions set forth in OAC 901:10-2-14(G) and are not to be regularly used as a management practice.

**k. Number of Years**

*“For how many years will the manure waste be spread on these properties?”*

**Response:**

The Manure Management Plan and the Permit to Operate have a life of five years, at which time they are required to be renewed by the facility if the facility intends to continue operations. Applying manure as a crop nutrient and following the requirements of ODA rules would allow the land to be used indefinitely.

**l. Subsurface Drain Flow**

*“The manure management plan (MMP) fails to follow the best management practices because the MMP fails to include that the owner or operator shall maintain or have access to methods or devices to capture or stop subsurface drain flow if liquid manure reaches the subsurface drain outlets.”*

**Response:**

The MMP is not required to have this statement, since tile stops or tile plugs are already required by the rules. OAC 901:10-2-14(C)(4) provides: “For all land application of liquid manures, the owner or operator shall maintain or have access to methods or devices to capture or stop subsurface drain flow if liquid manure reaches the subsurface drain outlets. Use of drain outlet plugs or other devices shall be recorded in the operating record in accordance with rule 901:10-2-16 of the Administrative Code.”

**m. Grab Samples**

*“The manure management plan (MMP) fails to follow the best management practices because the MMP fails to require the owner or operator to collect representative grab samples from discharges of manure from the land application sites.”*

**Response:**

The best management practice that this facility is required to meet is to have no discharges to waters of the State when applying manure to land or from land applied manure, unless the discharge is composed of storm water runoff from a land area where manure was applied in compliance with the facility’s manure management plan and all land application restrictions in ODA’s laws and rules, most notably those in OAC 901:10-2-14. ODA rules require CAFOs to be built and operated to have zero discharge. If there is a discharge or spill, then ODA rules require the discharge to be reported and the Director may require sampling, including grab sampling. This facility is required as part of its Emergency Response Plan under OAC 901:10-2-17 to report discharges or spills to ODA as soon as possible, but in no case later than 24 hours after the facility first learns of the discharge. As part of that report, the facility must notify ODA of the approximate amount and characteristics of the discharge and any waters of the State affected, so that ODA can investigate and order samples to be collected or collect samples itself as necessary. See also response to comment 3c above.

**n. Pounds of Phosphorus**

*“There are 2200 cows on 2545 crop acres. The average cow can generate .4 pounds of phosphorous a day. The entire herd will generate approximately 320,000 pounds of phosphorous. That equates to 125 pounds per acre. Using corn as the extracting crop, it will remove approximately 65 pounds of phosphorous per acre. This equation will create a residual of approximately 155,000 pounds of phosphorous. It appears to me that a herd this size will produce twice as much phosphorous as the 2500 acres of crops can use.”*

**Response:**

Refer to Section 5 of the CNMP, page 149, 150 and 151 of 170, Farm Nutrient Budget section of the Manure Management Plan that is included in the Permit to Operate. New IJsselstein Dairy estimates that approximately 137,300 lbs. of phosphate will be generated annually and approximately 149,600 lbs. of phosphate will be removed annually. These estimates are based on actual manure analyses from a similar type facility, which is allowed for planning new facilities and is in accordance with OAC 901:10-2-04(B). Because of variability involved with manure sampling and characteristics, New IJsselstein Dairy, like all permitted farms, would be required to analyze a sample of its own manure before any manure is applied under this Permit to Operate and to analyze a new manure sample from the facility annually thereafter. These

actual analyses shall be utilized for adjusting and figuring the appropriate land application rates for the nutrients.

This is a plan and any deviations from the nutrients removed or nutrients generated must be accounted for during operation, and nutrients under the control of the CAFF will still have to be applied in accordance with the land application restrictions contained in ODA rules. See response to comment 3b above.

**o. Phosphorus Soil Analysis**

*“The manure management plan (MMP) fails to follow the best management practices because the MMP exceeds the application rate for phosphorus based upon the soil test analysis.”*

**Response:**

This comment is not clear as to which manure applications are not in compliance with ODA rules. ODA has reviewed the plan in response to this comment and believes that the plan was developed in accordance with ODA rules. Any technical error, such as errors in calculations made in determining land application rates, must be corrected prior to land application and would be an operational change as stated in Appendix to rule 901:10-1-09.

**p. Phosphorus Applications**

*“The 2,600 acres is supposed to be used for manure spreading which will add phosphorous and nitrogen to the soils. Western Lake Erie is experiencing phosphorous overload with algae and dead zones increasing with the years. A new algae, *lyngbya wollei*, is blanketing much of the southern shores of Maumee Bay. The algae is fueled by phosphorous. Phosphorous in the waters must be limited. What is ODA doing to insure that the water quality standards of .01 per milligram are met so that excess manure applications from factory farms are not contributing to the phosphorous problem in Western Lake Erie.”*

*“The manure management plan (MMP) fails to follow the best management practices because the MMP indicates manure application of phosphorus exceeding two hundred and fifty pounds per acre.”*

**Response:**

Nitrogen and phosphorus can impact water quality in streams and Lake Erie. Currently, there are no restrictions on the use of commercial fertilizers, which contain nitrogen and/or phosphorus and are applied each year to cropland. The application of manure, which replaces this commercial fertilizer, is required to meet the many restrictions listed in this permit and in OAC 901:10-2-14, including setbacks designed to protect waters of the State. See the response to 3b above.

ODA reviewed the manure application plan contained in the Permit to Operate for the error described in the second comment and did not find any annual applications that exceeded 250 lbs. of phosphate. However, any technical error, such as errors in calculations made in determining land application rates, must be corrected prior to land application and would be an operational change as stated in Appendix to rule 901:10-1-09.

**q. Phosphorus Levels**

*“Why should phosphorus be limited in cleaning products but these farms are free to spew extra phosphorus into the environment. Agriculture shouldn’t have free rein to ruin the environment for other people.”*

**Response:**

Phosphorus is an essential nutrient for crop production. The use of manure replaces the use of commercial fertilizers that also contain phosphorus. The restrictions on phosphorus application noted in the response to comment 3b and contained in ODA rules are designed to prevent the discharge of phosphorus to waters of the State.

The use of phosphorus in cleaning products is limited because traditional wastewater treatment plant technologies are designed to remove organic matter and do not remove substantial amounts of phosphorus. To remove large amounts of phosphorus from the effluent a wastewater treatment plant discharges to waters of the State, the wastewater treatment plant must use additional (and often expensive) treatment technologies. For a brief description of how wastewater treatment plants work, see U.S. EPA’s public information brochure at [http://www.epa.gov/npdes/pubs/centralized\\_brochure.pdf](http://www.epa.gov/npdes/pubs/centralized_brochure.pdf). A more detailed explanation is also available at <http://www.epa.gov/npdes/pubs/bastre.pdf>.

**r. P Levels in Excess of 60 Lbs.**

*“There is no agronomic justification for raising soil-test phosphorus levels above those that provide adequate nutrition to the crop.” (Best Management Practices: Land Application of Animal Manure - OSU Extension AGF-20895.) Why are most of the P levels in this Permit in excess of 60 Lbs.?”*

**Response:**

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). Therefore, additional phosphorus in excess of the following crop needs can be stored or “built-up” in the soil, provided it follows one of the phosphorus risk assessment procedures described in rule. ODA allows phosphorus to be applied and removed over multiple years. Over the five year life of this permit, however, levels of phosphorus for many fields will decrease. See the response to 5n above.

**s. Crop Yields**

*“Explain why the ODA does not require any documentation for the crop yields used in this Permit.”*

**Response:** OAC 901:10-2-09 states that the nutrient budget of the manure management plan can be based on any of the following: targeted crop yields based on actual crop yields, soil productivity information, historical yield data, potential yield, or combinations of yield data. The yields proposed were well within an achievable limit and were accepted as such. If proposed yields are not met the plan will be adjusted for future years and land may need to be added.

**t. “N need”**

*“It appears that the nutrient levels are being manipulated to fit the land base in the New IJsselstein Permit. Please explain why the New IJsselstein Permit is based on “N need” when sometimes P is the Most Limiting Factor.”*

**Response:**

The “N need” column in the manure application plan should not be taken as meaning that the nitrogen requirement is the only factor that comes into play with this MMP. The majority of the fields identified in this plan to receive manure have soil phosphorus levels less than 75 ppm, which is approximately half of the maximum phosphorus soil buildup of 300 lbs./acre that would restrict further phosphate application under the soil phosphorus risk assessment procedure in OAC 901:10-2-14 Appendix E, Table 2. For those acres where soil phosphorus levels are not a concern, up to 250 lbs per acre of phosphate can generally be applied, provided that the nitrogen limitations for the following crop are not exceeded. However, given the combination of nitrogen and phosphate contained in manure analyses for dairy manure, generally the nitrogen limitation is reached before the phosphate limitation is reached. In the future, if soil tests approach or exceed the soil phosphorus limitation of 150 ppm, then the application of phosphate would play a limiting role in deciding the application rate. See responses to comments 3b and 5e for more information about the limiting factors on manure application rates.

**u. USEPA Versus ODA Rules**

*“Explain why the ODA does not require the manure to be applied in compliance with federal Clean Water Act regulations for multi-year phosphorus application.”*

**Response:**

U.S. EPA’s rules allow for assessment procedures to be utilized that evaluate the potential for nitrogen and phosphorus transport from a land application field. 40 CFR 412.4(c)(1) states: “...The CAFO must develop and implement a nutrient management plan that incorporates the requirements of paragraphs (c)(2) through (c)(5) of this section based on a field specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.” ODA’s rules and assessment procedures for evaluating the movement of nitrogen and phosphorus from the land application field are consistent with this requirement in the Clean Water Act

regulations, and ODA's rules are currently under review by U.S. EPA based on ODA's submittal to obtain authority to administer the NPDES permitting program for CAFOs.

**v. Bulletin 604**

*"Explain why ODA representatives make public statements that the Program uses 'book numbers' when the phosphorus amounts per lactating cow in this Permit are much less than the standards in OSU Extension Bulletin 604."*

**Response:**

ODA does not dispute the data published in OSU Extension Bulletin 604, but the Permit to Operate for this facility must follow ODA rules. The Bulletin 604 data are from other references that have not been updated as recently as the bulletin itself. Those older references do not account for the newer recommendations for livestock feeds that reduce the phosphorus excretion of the animals. For instance the use of phytase in swine can reduce the amount of phosphorus in manure by 40%, and the National Research Council's Nutrient Recommendations for Dairy Cattle recently reduced the phosphorus requirements in dairy rations. Both of these changes are not reflected in the Bulletin 604 charts. That is why ODA rules provide for the use of actual tests of manure nutrient levels from similar facilities and from the actual facility when it is up and operating.

**w. Manure Nutrient Analysis**

*"Explain why the ODA does not require documentation for the manure nutrient analysis used in this Permit."*

*"Explain why the manure nutrient analysis in this Permit does not comply with OAC Appendix to Rules 901:10-2-04 and 901:10-2-10 'Manure Production Characteristics'."*

**Response:**

OAC 901:10-2-04(B) provides that manure may be characterized by using manure data from a similar facility accompanied by the source of the data. The New IJsselstein Dairy PTI and PTO were based on manure nutrient data compiled from multiple similar dairies and ODA was made aware of the source which is also why the Appendix to Rules 901:10-2-04 and 901:10-2-10 was not used.

**x. Soil Tests**

*"What all does the soil get tested for? Can and will these tests detect supplements to the feed, E-coli, hormones, antibiotics?"*

*"How can you truly monitor for correct application practices and levels when you're only testing the land every three years?"*

**Response:**

At a minimum, soil samples shall be taken to a uniform depth and the fertility analysis shall include: pH, phosphorus, potassium, calcium, magnesium and cation exchange capacity. Phosphorus levels in soil will not dramatically change over a period of one year and the sampling frequency is generally adapted to the crop rotation of the crop producer. A sampling frequency of 3 years is consistent with the requirements set forth in USDA-NRCS standards and recommendations of the Ohio State University. Refer to OAC 901:10-2-13.

USEPA did not require pathogen testing of manure or of the other items listed by the commenter in its 2003 CAFO rules, and ODA rules similarly do not require soil tests of these parameters. It is difficult to determine what is the source of pathogen pollution because such contamination may be caused by domestic animals, wild animals, or badly maintained septic systems, not just livestock.

**y. Runoff During Heavy Rain**

Concerns that excessive rainfalls, like what occurred this past summer, after manure has been applied would have bacteria everywhere.

*“A second concern is the run off during a heavy rain. I do not see how the set backs, as presented, can prevent such run off from traveling into our ditches, creeks, rivers, and eventually to one of the state's greatest resources, lake Erie.”*

**Response:**

See response to comment 3b above. Incorporation of manure is not required of ODA rules. However, permitted farms are required to follow OAC 901:10-2-14, which contains land application restrictions designed to prevent manure application and runoff during heavy rains. For instance, Appendix A Table 2 of that rule requires land applications of manure, both surface applied and incorporated, to meet setbacks from waters of the State, public surface drinking water intakes, and wells. Appendix A Table 2 also imposes restrictions on land application to certain flood plains, floodways, and highly sloped cropland, based on the potential of runoff. The amount of liquid manure that can be land applied is limited under OAC 901:10-2-14 by the available water capacity in the soil at the time of application. See OAC 901:10-2-14 Appendix B. Land application also must be performed based on weather forecasts for rainfall. OAC 901:10-2-14(C)(6) states that manure shall not be applied if the forecast contains a greater than 50% chance of precipitation exceeding an amount of ½ inch for a period extending 24-hours after the start of land application. The facility must record weather conditions and forecast to demonstrate compliance.

**z. Setbacks to Surface Waters**

*“The manure management plan (MMP) fails to follow the best management practices because the MMP fails to provide adequate setbacks from surface waters and conduits to surface waters, including grassed waterways and surface drains.”*

**Response:**

The MMP is not required to have this statement since the required minimum setbacks for manure application are set forth as legal requirements in OAC 901:10-2-14 Appendix A Table 2. This Land Application Restriction table is also present in the New IJsselstein Dairy Operating Record that is located at the end of the Permit to Operate. The required setbacks include not only minimum setbacks for surface water but also setbacks for wells and residences.

**aa. Setbacks to neighboring Properties**

*“Since we are surrounded by farmland how do we protect our property from manure overspray or runoff? How do we keep the manure overspray or runoff out of our pond where our family swims?”*

**Response:**

Overspray would be a violation of manure application setbacks. See response to comment 5z above and OAC 901:10-2-14 Appendix A Table 2 regarding the setbacks required near residences and surface waters.

**bb. Monitoring Tile Outlets**

Concerns that the proposed land application site maps fail to identify which of the fields are tiled and without their locations being identified visual monitoring of the tiles is unlikely.

**Response:**

See response to comment 3b above. A permitted facility in control of the manure application must know where the tile outlets are located prior to commencing application so that they can be properly monitored to comply with OAC 901:10-2-16(A)(1)(c)(iii)-(iv). Each tile outlet is not required to be identified for all 2,550 acres as part of the Permit to Operate but the outlets must be monitored during land application.

**cc. Winter Manure Application**

What are ODA's regulations for land application of this manure during wet seasons and during the winter months? How are these regulations enforced? What are the penalties for violations?

**Response:**

New IJsselstein Dairy will be required to follow ODA rules in regards to any manure application on frozen and/or snow covered ground. See OAC 901:10-2-14(G) and Appendix A Table 2 of that rule.

Surface land application of manure on frozen or snow-covered ground is not absolutely prohibited by ODA rules but is only to be used during emergency situations. A manure management plan must be developed that does not include the winter months as typical manure application periods. As shown in the manure application plan for New IJsselstein Dairy in the Draft Permit to Operate, all manure application is planned during times of the year (April through November) when frozen or snow-covered conditions are less likely to occur. The manure storage period and manure storage capacity provided at the facility is designed to enable the facility to not have to apply manure on frozen or snow-covered ground. Sufficient manure storage for the winter months is one item the inspectors specifically check in inspections prior to the winter months. The manure storage at the facility must be managed to ensure that the dairy has exhausted all available means to get manure applied during the appropriate times of the year. Any facility that would need to surface apply manure during emergency situations on frozen or snow-covered ground must first contact ODA for approval and be in compliance with the additional land application restrictions imposed by OAC 901:10-2-14(G) and Appendix A Table 2 for such application. The amount that they can apply is to be the minimum amount to get them through to better application conditions. Some of these additional restrictions include: a total setback of 200 feet from any surface water feature (i.e., streams, grassed waterways, ponds, etc.), a maximum application rate of 5,000 gallons per acre for liquid manure; a minimum of 90% residue cover; less than 6% slope; and manure cannot be applied on more than 20 contiguous acres without a break of at

least 200 feet. Although the plan does not include manure application during the winter months, manure can still be applied during these months if the ground is not frozen or snow-covered or if the manure can be injected or incorporated and the application meets all the other ODA criteria for land application of manure.

**dd. Manure Application Training**

*“I understand that there are guidelines in place for the application of manure. How is the training to the farmers completed? What procedure is in place for monitoring this training? Who is responsible for the training to the farmers for appropriate application numbers? Who is responsible for monitoring compliance? What is the time frame for monitoring? How often is each field monitored? Is there adequate staff for appropriate monitoring? In my review of the proposed permit it does not appear that best management practices are in place for manure application and monitoring.”*

**Response:**

Ohio is one of only a handful of states that requires anyone who manages and/or handles manure at a major concentrated animal feeding facility or anyone who buys, sells, or land applies, or who transports and land applies, more than 4,500 dry tons or 25 million gallons of liquid manure a year to receive training and to become a Certified Livestock Manager (CLM). To receive Certified Livestock Manager licensing through ODA, a farmer or custom applicator must attend three “core” training sessions covering environmental rules and regulations, on-farm nutrient balance and manure storage and handling. The training also requires three elective sessions ranging from a variety of topics such as biosecurity, good neighbor relations, spill response, odor minimization and land application best management practices. Certified Livestock Managers need 10 hours of continuing education every three years to maintain certification.

Although the owner/operator of the New IJsselstein facility is not required to be a CLM, both Peter and Antoinette van der Burg, the operators of New IJsselstein Dairy, have taken the CLM training. If producers have questions about the requirements of their Permit or ODA rules, ODA inspectors or engineers provide technical information on an as-requested basis. All farms are required to know and comply with the terms of their permits regardless of whether they have attended formalized training. One of the ODA inspectors will monitor compliance at New IJsselstein Dairy.

**ee. Distribution And Utilization**

*“New IJsselstein Dairy proposes distribution and utilization methods for beneficial use of manure as part of its manure management plan. Pursuant to OAC 901:10-2-11, New IJsselstein Dairy shall record in the operating record the name and address of the manure recipient, the date of distribution, and the approximate amount in tons or gallons distributed on that date. Further, if the recipient of manure is not in compliance with rule 901:10-1-06 of the Administrative Code or best management practices set forth in Chapter 1501: 1505 of the Administrative Code or with other applicable laws and rules, New IJsselstein Dairy would be required to cease providing manure to such recipient until written authorization to continue is received from the ODA. Has New IJsselstein Dairy provided the ODA with confirmation that it has addressed the reporting requirements and best management practices with the manure recipients? If yes, how was this done? If not, how can the manure recipients ensure compliance when they have never been advised what compliance is?”*

**Response:**

New IJsselstein Dairy is required to record information in the operating record when the dairy is constructed, its construction is approved by ODA, and it has subsequently received stocking approval from ODA. At that time, the dairy starts to record operating information in the facility's operating records and the dairy is routinely checked in ODA's bi-annual inspections. Therefore, reporting requirements do not have to be started until the dairy operation commences operation.

**ff. Application Fields**

*"Explain why the Dairy's MMP does not list the fields which will be available for manure application "for the duration of the permit"."*

**Response:**

New IJsselstein Dairy's permit identifies the land available for manure application that is intended to be used for the duration of the permit.

**gg. Transport of Manure to Application Fields**

*"What will the local controls be for the transportation of the manure from the dairy to the various sites? Some of these sites are on the opposite of Woodville. There is no control. They can drive right down Main Street and, in fact, will, and then down Lime Street, to get to one the affected fields. Look at the map."*

**Response:**

The ODA has no jurisdiction over the use of public roads. The persons responsible for transporting the manure will have to follow the rules and limits posted by the controlling agency.

**hh. Ditch Law**

*"Can the Ditch Law or any other law be used to force me to allow, manure or Black water applicators, neighboring farmers or Cafo operators, to cross my properties with pipes or drag line equipment, and if pipes and lines break and leak on my property causing a spill, am I liable for the spill, being I was forced to allow them to cross my property?"*

*"The gentleman from Woodville that was giving the tour to friends and neighbors kept referring to manure or the dairy farms discharge as black water. This didn't make sense to me. Calling discharge from cows black water rather than manure till Wednesday evening when I got thinking about the discussion of the drag line method of manure application at the Scott Township mega dairy meeting, I got to thinking about how farmers in our area that irrigate with water from area quarries have reinterpreted the ditch law to give them the right to use any ditch as a means to travel this water by means of sand bagging a ditch and pumping several times to get the water to where they want it for irrigating.*

*To these farmers that irrigate, it seems that water is water and they use the easiest and cheapest means of transfer to them as possible even to the point of reinterpreting the ditch law. If they can get manure re-classified or called black water, I don't care what color the water is, black, brown, red or yellow, it's all water. And I can see them trying to use the ditch law to move it."*

*“How would the ODA deal with the situation of an applicator that used the Ditch Law or local rules to move Black Water in the same fashion as quarry water is presently being moved in our area ,by pumps and irrigation pipes, to and from open ditches for the transport of Black Water?”*

**Response:**

The Ditch laws establish a public improvement for the use of moving or removing water for drainage or irrigation purposes. It establishes a right of way for those improvements similar to the right of way for roads. These drainage improvements will not be allowed to convey manure in open ditches. A farm may request that the right of way be utilized for separate irrigation piping to move manure to fields for application according to land application restrictions; a road right of way may also be requested to lay irrigation piping to move manure to reduce traffic by moving manure in pipes rather than by tractor or trucks on the road. The responsibility for any manure spill would primarily go to the person who caused the problem. Similar to an incident involving a broken gas pipeline, it would be unusual to find fault with a landowner when the gas company owned and operated the line.

**6. Emergency Response Plan**

*“I understand that this proposed facility uses the term best management practices to describe the plans to contain spills, to monitor spillage into local waterways, and emergency response. Please provide detail on what these management practices are to respond to the spillage into local waterways. What agencies or organizations will be involved in the emergency response? What training has been completed with these emergency response agencies? How will residents be notified of contamination? What is the time frame for notification of contamination?”*

*“What agencies or organizations will be involved in the emergency response? How will the residents of Woodville be notified of the water contamination? What's the time frame for that notification to residents?”*

*“What do you consider an emergency, as in the application? What would be done in case of pond overflow or runoff?”*

*“New Ijsselstein proposes to address the drinking water concerns of the local community by installing ground water monitoring. This is not a proactive measure to ensure that our drinking water is not contaminated. This is an after the fact reactive step telling us the rate at which our drinking water is being contaminated. What proactive measures has the dairy taken to ensure that ground water contamination doesn't occur? Realistically, once New Ijsselstein contaminates our drinking water, is there anything the ODA can really do about it?”*

**Response:**

A runoff retention plan and a listing of agencies that may be involved in an emergency situation can be found in the Emergency Response Plan located near the end of the PTO. Residents are not required to be notified unless they would be directly impacted by the spill for safety reasons. A spill must be reported to ODA within 24 hours. ODA inspectors and other staff are available 24 hours and, depending on their location at the

time of notification, can be to a site within less than a couple of hours. We also are in contact with other agencies and work closely with Ohio EPA, the Ohio Department of Natural Resources, local Soil and Water Conservation Districts and Health Departments in the event of a spill and routinely send them information on regular inspections. ODA does, at times, rely on local agencies (i.e., SWCDs, Health Departments, etc.) for assistance with inspections if an ODA inspector would not be able to make it to the site in a reasonable timeframe.

As mentioned previously in the above responses, this facility is to be constructed and operated not to discharge manure into surface water or groundwater. If a discharge does occur, no matter its impact on the water or environment, an investigation will take place to gather all the facts associated with the discharge. Depending on the outcome of the investigation, appropriate enforcement actions will be determined by ODA based on the facts from the investigation and the cooperativeness of the facility to contain and eliminate the discharge.

### **7. First Responders to Emergencies**

*“If ODA is to respond to an emergency, how many hours would it take before they could get here and what would they do when they got here?? The local EMTs are furious because they know that they would be the first ones called and they have NO training for hazards, such as hydrogen sulfide or methane gas poisoning, that are encountered at manure facilities. They have NO air packs or emergency breathing apparatus. They have NO chemical hazard suits and they have NO funding for this. Who's going to pay for this? The fire departments are pretty much all volunteer-staffed around there and they are trained for the fire aspects, but the EMTs would most likely be expected to be the first responders.”*

#### **Response:**

See response to 6 above. Local EMTs should not be called upon unless physical harm to humans has occurred. Hydrogen sulfide poisoning generally occurs in areas that are enclosed manure storage (i.e.: deep concrete storage pits that are covered and have poor ventilation). New IJsselstein Dairy does not have a manure storage or treatment facility that is enclosed.

### **8. Emergency Management Fund**

*“Pursuant to the provisions of Ohio Revised Code 903.18, if the director of agriculture determines that an emergency exists that requires immediate action to protect the public health or safety or the environment, the director may issue an order stating the existence of the emergency and requiring that action be taken that is necessary to meet the emergency. Further, the person that is responsible for causing or allowing the unauthorized spill, release, or discharge of manure that requires emergency action to protect public health or safety or the environment is liable to the director for the costs incurred in investigating, mitigating, minimizing, removing, or abating the spill, release, or discharge. Moneys recovered are paid into the state treasury to the credit of the livestock management fund. How often did the Director declare such an emergency in the past 5 years? What types of circumstances constituted such an emergency? How much money has been paid into the management fund in the past 5 years? What is the balance in the management fund today? What steps would the Director take in the event of an emergency related to New IJsselstein Dairy?”*

**Response:**

The Director has had to use this authority only once in the past five years, and issuance of the emergency order was sufficient to gain compliance from the facility that posed a threat to public health. That is, upon receipt of the Director's emergency order, the affected facility took all steps and incurred all costs necessary to address the emergency. The emergency order was issued to an egg farm because of extreme levels of flies resulting from the farm's failure to follow its Insect and Rodent Control Plan. To date, the Director has not had to expend any money to address an emergency.

As to other questions posed, it is somewhat difficult to speculate on the nature or types of emergency to which the Department might respond and what actions would be part of the response. In Ohio and other states, the most "typical" emergency involves fires or weather conditions that may cause a catastrophic loss of animals. For this reason, ODA permits require prior planning for catastrophic mortality losses. In cases where mortality and/or waste product (e.g., milk or egg product) must be disposed of in a landfill, ODA coordinates with Ohio EPA.

The Livestock Management Fund currently has a balance of over \$250,000.

**9. Manure Storage****a. Storage Pond Construction**

*"Who will inspect, oversee and approve construction of the manure holding ponds and fabricated structures that hold manure at New IJsselstein?"*

- a. What are the qualifications of this inspector?*
- b. Is this inspector connected in any way to the dairy owners, officers, directors, shareholders or its operators?*
- c. Is the inspector connected in any way to the Ohio Department of Agriculture?*
- d. Who pays for this inspector?"*

*"Can the Village of Woodville also have its own qualified inspector oversee and approve the construction of the manure holding ponds and fabricated structures that hold manure?"*

*Can the Woodville Township Trustees also have their own qualified inspector oversee and approve the construction of the manure holding ponds and fabricated structures that hold manure?"*

*Can the Sandusky County Health Department also have its own qualified inspector oversee and approve the construction of the manure holding ponds and fabricated structures that hold manure?"*

*Can the County Commissioners also have their own qualified individual inspector to oversee and approve the construction of the manure holding ponds and fabricated structures that hold manure?"*

*Who other than the Ohio Department of Agriculture or the dairy operator can provide a qualified inspector to oversee and approve the construction of the manure holding ponds and fabricated structures that hold manure?"*

*"What is the procedure for testing the manure pits - both at the time of construction and after receiving the manure?"*

**Response:**

Manure ponds at New IJsselstein Dairy will be tested and inspected by independent testing firms that are qualified to perform such work. Compaction testing on the liner will occur at a minimum of 5 tests per acre lift of fill placed. Other testing and evaluation will occur during construction, such as documenting the exploratory trench completion, proofrolling of the sub-bases that will receive earthfill, and other evaluations that can be found on the approved set of engineering plans included in the PTI. The completed project will be certified by a Professional Engineer and inspected by an ODA engineer.

Once in operation, the CAFF is required to inspect the liquid manure storage structures on a weekly basis and ODA will inspect them during the two annual inspections that will be performed. The manure storage ponds at New IJsselstein Dairy will also be monitored by the groundwater monitoring system as described in the response to comment 1a.

**b. Monitoring**

*“Who is responsible for monitoring the manure pits?”*

*“How often are the manure pits tested? Is there enough adequately trained governmental staff to handle the required testing?”*

**Response:**

See response to comment 9a above. ODA engineers conduct site visits and receive periodic status updates during facility construction. In addition, ODA engineers review the final as-built drawings of the facility and review to assure the manure storage or treatment facilities were constructed in accordance with the approved plans. ODA inspectors review operating records and check manure pond conditions and manure levels during their routine inspections.

**c. Capacity**

A concern that during the growing season when manure cannot be applied to the crops, that there isn't going to be enough storage capacity to hold the manure.

*“Chapter 901:10-2-04 (D) of the Ohio Administrative Code sets forth the general design and construction criteria for manure storage or treatment facility. The manure storage or treatment facility is to be designed and constructed to handle manure volume, precipitation and surface water runoff in a manner that prevents the discharge of manure to waters of the state. The New IJsselstein Dairy plans underestimate manure volume based upon the number of cows proposed to be housed at the dairy. In addition, the New IJsselstein Dairy plans fail to include precipitation based upon current precipitation data. What will the ODA require of New IJsselstein Dairy as this is misleading and/or false and constitutes a basis for denying the permit pursuant to 901:10-1-03?”*

**Response:**

The manure generation volumes stated on Sheet 4 of the engineering plans are reasonable and in accordance with ODA rules. They include contaminated stormwater runoff resulting from precipitation and reflect what have been actual volumes experienced by existing facilities. The manure storage and treatment facilities are designed for 359 days

of manure and rainfall storage plus the 100 year/24 storm event and an additional one foot of freeboard.

**d. Washwater**

*“Ohio Administrative Code 901:10:2-08 (4d) says, ‘Inspect in order to confirm that domestic and industrial wastewater from showers, toilets, sinks, medical wastes, chemicals and other contaminants etc, handled on site are not discharged into the manure storage or treatment facility unless designed and permitted to do so.’ Again, discharge from showers, toilets, sinks, medical wastes, chemicals and other contaminants (whatever they are) sound like pollutants to me. My question: Have you permitted the IJsselstein Dairy to discharge the above-mentioned list? If so, what safeguards have been put in place to prevent them from polluting our aquifer, who monitors and tests to be sure this is being done properly?”*

**Response:**

New IJsselstein Dairy will be applying for a septic permit from the OEPA for its domestic wastewater and is permitted to store its milkhouse washwater in the manure storage pond. This volume is calculated into the annual volume of manure to be stored. In Ohio law, R.C. 903.01(O) defines “manure” to include discarded agricultural products, such as milk.

**e. As-Builts**

*“Why are as-built drawings submitted after the facility is completed?”*

**Response:**

As-built drawings are a set of engineering plans that show any minor deviations from the approved plans that would not have otherwise constituted a Major Operational Change or a Permit Modification. They are used once the facility is up and operating. They are proof that what was permitted was actually constructed and are required from all facilities prior to beginning operation or stocking of animals.

**f. Solid Removal**

*“There will be solids settling out in the ponds. How will these solids be collected and disposed of?”*

**Response:**

Sand will be separated as the manure/sand mixture flows through the sand lanes and the sand will be reused. Some of the solids will be separated by the mechanical system proposed and land applied at the appropriate time. Manure storage pond #1 will settle out the finer solids and has a concrete bottom for vehicular access to remove the solids that will settle out in it into trucks for field application

**g. Blackwater**

*“The ‘blackwater’ application to crops needs to be the next regulation for I hear that Dan Liskai will apply it to his vegetable ‘table’ crops, this is how California got into trouble with spinach this past summer, do the manure spreading contracts address this concern?”*

*“The definitions set forth in 901:10-1-01 of the Ohio Administrative Code do not include a definition for ‘blackwater’. The National Safety Council defines ‘blackwater’ as ‘water that contains animal, human, or food waste’. Wikipedia defines ‘blackwater’ as ‘water containing fecal matter and urine. It is also known as brown water, foul water, or sewage. It is distinct from greywater or sullage, the residues of washing processes.’ How many of the storage ponds at New IJsselstein Dairy hold will ‘blackwater’, meaning water that contains cow waste/fecal matters and urine? Where will the ‘blackwater’ be distributed? How will the ‘blackwater’ be distributed? Does the ODA have any restrictions or regulations on the application and safe handling of ‘blackwater’? What protections are contained in the New IJsselstein Dairy permit to insure that ‘blackwater’ does not contaminate surface water or ground water? Will ‘blackwater’ be removed from the pond(s) and transported by a dragline? On whose property will the dragline be placed? Where will the dragline be placed? Will ‘blackwater’ be dumped into the ditches surrounding New IJsselstein Dairy? How will New IJsselstein Dairy dispose of its ‘blackwater’? Does the ODA consider ‘blackwater’ to be the same thing as ‘liquid manure’ which is defined in 901:10-1-01 of the Ohio Administrative Code as ‘manure containing more than or equal to eighty percent liquid’?”*

**Response:**

ODA’s governing statutes in Chapter 903 of the Revised Code contain the following relevant definitions. Section 903.01(O) of the Ohio Revised Code defines manure as follows: “Manure” means any of the following wastes used in or resulting from the production of agricultural animals or direct agricultural products such as milk or eggs: animal excreta, discarded products, bedding, process waste water, process generated waste water, waste feed, silage drainage, and compost products resulting from mortality composting or the composting of animal excreta.

Section 903.01(Y) defines “process generated waste water” as water that is directly or indirectly used in the operation of an animal feeding facility for any of the following:

- (1) Spillage or overflow from animal watering systems;
- (2) Washing, cleaning, or flushing pens, barns, manure pits, or other areas of an animal feeding facility;
- (3) Direct contact swimming, washing, or spray cooling of animals;
- (4) Dust control.

Section 903.01(Z) defines “process waste water” as any process generated waste water and any precipitation, including rain or snow, that comes into contact with manure, litter, bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animals or direct products such as milk or eggs.

Under Ohio law, that which the commenter refers to as “blackwater,” “greywater,” and “sullage” will be regulated as “manure.” This manure will be land applied as described in the Manure Management Plan as a nutrient for soybeans, alfalfa, corn, corn silage, and wheat, and not vegetables.

**h. Synthetic Liner**

*“Why wasn't a synthetic liner system required similar to hazardous waste/materials for the manure lagoons?”*

**Response:**

ODA rules do not require a synthetic liner system for this facility. OAC 901:10-2-06(A)(9) requires a minimum of 3 feet of soil with hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec and OAC 901:10-2-02(E) requires 15 feet of low permeability soil between the bottom of the pond and the uppermost aquifer unless additional design criteria or groundwater monitoring are added, installed and implemented as approved by the director. OAC 901:10-2-02(N) provides that increased liner thickness may serve as additional engineering controls. Based on the previously stated rules, the addition of ground water monitoring and an additional twelve inches of recompacted clay to provide a total liner of 48” at a permeability less than  $1 \times 10^{-7}$  cm/sec (better) causes the design of these ponds to meet the ODA required minimums. As noted in the response to 1a above, the liner standard of 3 feet of soil with a permeability not to exceed  $1 \times 10^{-7}$  cm/sec has been used by ODNR Division of Soil and Water Conservation and the USDA-Natural Resources Conservation Service for 30 years without any problems of groundwater contamination. See the response to 1a. for further information about the liner.

**i. Additional Design Criteria**

*“VARIANCES: It was very disturbing to hear that variances to the approved ODA standards are being considered, with regards to liner composition and required soil depth, to name a few. The standards were established for the protection of the environment and the health and welfare of Ohio citizens. They should not be weakened, compromised, or circumvented for the convenience of ‘interested parties,’ domestic or foreign.”*

*“In the original application, a manure storage pond or treatment lagoon was to have 15’ of low permeability material between it and the uppermost aquifer. Then the ODA changed the requirements to 3’, which is close to all there is, if any, at the Woodville & Gibsonburg sites. Then if I heard right at the Gibsonburg permit hearing on 10-14-07, the ODA now doesn’t require any distance between the ponds and the aquifer. There is a lot of difference between 15’ and 3’ feet or nothing. Why has the distance between the bottom of these manure ponds and the uppermost aquifer been changed so much or totally done away with?”*

**Response:**

Please see the response to 1a above. The amount of low permeability material present between the bottom of the manure storage ponds and the uppermost aquifer is between 9.4 and 15.5 feet. The amount of low permeability material between the top of the storage pads and the uppermost aquifer is between 8.6 and 18.5 feet. Both manure storage facilities have locations with less than 15 feet of separation from the aquifer; therefore additional design criteria or groundwater monitoring were required. As noted in 1a and 9i above, groundwater monitoring has been added as well an additional 12 inches of recompacted clay to the pond liner which satisfies the requirement for additional design criteria as outlined in OAC 901:10-2-02.

**j. Test Pit Investigations**

*“Ohio Administrative Code 901:10-2-03(C)(1)(d) indicates that evidence of seepage or ground water conditions and depths in pits should be included in the results of the subsurface geological explorations. Pursuant to Page 2 of the Subsurface & Siting Report, it indicates that no test pit investigations were conducted. Given the fact that the geological area has karst features, testing definitely should have been done to determine seepage and ground water conditions. Why wasn't the testing done? Who determined the testing wasn't going to be done? Given the serious concerns of the community relative to ground water contamination and seepage in the karst area, this test must be completed.”*

**Response:** Test pits were dug at the New IJsselstein Dairy site and the results are tabulated in Appendix L of the Permit. Page 2 of the Subsurface & Siting Report has been adjusted to reflect the investigation.

**k. Backup Generator**

*“Question is there a backup generator in place to pump the manure to the proper pit?”*

**Response:** New IJsselstein Dairy will have a backup generator to power the whole dairy should there be a loss of electrical power.

**10. Anaerobic Digesters**

*“ALTERNATIVE TO LAGOON STORAGE: Any and all alternative methods for handling the manure and making it into fertilizer should be investigated and evaluated with an open mind before permitting lagoon storage. It is my understanding that there is a ‘manure digester’ system, in which the manure is fed into the digester, dry fertilizer is produced, and the methane gas generated can be used as a fuel. This process also significantly reduces the odor and insect problems. If the use of a digester system could eliminate many of the contamination/pollution concerns attendant in the use of storage lagoons, it must be seriously considered. This is a situation in which financial issues should take a back seat to environmental ones.”*

*“Some very interesting comments about those digesters. If that's the solution to the problem, why isn't it incorporated as part of this permit? Why isn't it mandatory that this dairy use those?”*

*“Were anaerobic digesters considered to reduce environmental impacts?”*

**Response:**

Installation of digesters is not required by ODA rules, although as technologies and renewable energy continue to become more of a priority in the State of Ohio, the consideration of digesters increases on the minds of CAFF owners and operators. However, manure is still present after the operation of most digestion processes and a majority of the original nutrients in the manure will still need to be handled through land application and pond storage after passing through the digestion system.

**11. Wastewater Treatment Plant Requirements Versus Permitted Dairy Farm**

*“As a village we have just been given approval for our 10 year plan to separate the storm sewers from the sanitary sewers to prevent overflows during heavy rains. This is a multiple million dollar project that the village has to pay for. Yet you are going to allow*

*almost 30 million gallons of manure to be stored in uncovered lagoons till this 'liquid' is spread on selected fields in the area. If it is alright for the equivalent sewage from 50,600 people to be stored in open lagoons and then spread on fields to dispose of it, why then does a small village of 2,000 people have to follow such stringent rules for our sewage?"*

*"Why is a privately-owned for-profit operation that is the equivalent of a major industrial operation exempt from the sewage treatment requirement imposed on municipalities."*

*"The EPA is now mandating even the smallest villages, such as nearby Helena, to build wastewater treatment plants. This is causing much unrest within these small village governments and busting the budgets of the residents who live there. Yet these mega farm industries are under permit consideration to locate in the area with little to no treatment of their sewage."*

*"Why should liquid cow manure, which is full of contaminants, be applied to fields untreated whereas, human waste/sludge requires extensive treatment before being applied to land?"*

*"No village, town, or city in Ohio can store their sewage in an open pit or lagoon. Yet New IJsselstein Dairy is going to be permitted to do exactly this. Every municipality in Ohio is required to operate and maintain a sewage treatment plant. New IJsselstein Dairy will not be required to construct and maintain such a sewage treatment plant."*

**Response:**

A Permit to Install and a Permit to Operate are required for any dairy facility that will house more than 700 mature dairy cows and these permits do provide for infrastructure for waste management. Unlike sewers serving a human population, waste treatment/storage for dairy cows requires design and construction of facilities with no discharge or zero discharge, except in the case of either a 25-year, 24-hour storm event, or as is the case with New IJsselstein Dairy, only in the event of a 100-year, 24-hour storm event. All manure nutrients are required to be applied to crop land replacing commercial chemical fertilizer.

Many municipalities store and treat their wastewater in open pits and/or lagoons in the State of Ohio. Based on OEPA standards, a community of 50,600 people will produce 5,060,000 gallons of sewage daily; the 2,200 cattle on the New IJsselstein Dairy will produce about 66,000 gallons of manure per day.

**12. Manure Waste**

*"What are the chemicals contained in the manure waste & what effect will they have on the environment, now & 10 & 20 years from first application?"*

**Response:**

Manure, which includes urine, feces, waste feed, wash water from the facility and contaminated runoff, is a source of organic nutrients. It is no different in consistency from any other manure from permitted or nonpermitted facilities. Any detergents, disinfectants and pesticides must be used and disposed of according to required labels and approvals from USEPA, FDA and USDA.

### 13. Siting Criteria

*“Why are these farms being considered for such a populated area?*

*There are homes surrounding this farm. Plus many homes in a one mile radius.”*

#### **Response:**

OAC 901:10-2-02(L) sets forth the siting criteria for “Neighboring residences” and makes a distinction between facilities such as New IJsselstein Dairy that are CAFFs, concentrated animal feeding facilities, and “MCAFFs.” which are major concentrated animal feeding facilities or larger facilities. Also, the rule distinguishes between liquid and solid manure storage and treatment facilities.

The relevant part of OAC 901:10-2-02(L) that applies to New IJsselstein Dairy is as follows:

(1) A manure storage or treatment facility for solid manure at a concentrated animal feeding facility shall be no closer than five hundred horizontal feet from a neighboring residence. . . .

(2) A manure storage or treatment facility for liquid manure at a concentrated animal feeding facility shall be no closer than one thousand horizontal feet from a neighboring residence. . . .

The New IJsselstein Dairy permit meets these siting criteria.

### 14. Mortality Management Plan

Comments concerning the mortality management plan.

*“At the meeting last night, I understood Mr. Elder to state that this dairy would be using a rendering service as their method of disposal of dead cows. Where is this rendering service? Is it close to us? If they are using a rendering service, why are they planning on a composting pad? If they do composting, do they have to check to see why the animal died? Will the dead cows be checked by a vet to make sure that this will not spread to the other cows on the premises? Do we need to have concern about the compost from these cows? Would the compost have traces of the disease, antibiotics, and hormones? Where will this compost be used or disposed of?”*

*“They do have an Emergency plan for some items. What if the power goes out? Will someone be on the site at all times to make sure that the backup goes on. If not the cows could be overcome by ammonia and methane from the manure. What would happen if there would be a severe problem of many cows dying, how could they dispose of many?”*

*“We are also very concerned about the spread of disease and bacteria resulting from thousands of animals in close quarters, and the consequences to public health from any widespread mortality and/or mortality composting.”*

*“If the CAFO operator were to compost the dead cows, and there would be an extreme amount of flies and coyotes; would ODA require them to use a rendering service instead?”*

**Response:**

As described in the Mortality Management Plan, the normal disposal method for mortality chosen by the New IJsselstein Dairy is rendering. The Mortality Management Plan identifies several different rendering companies that may be used by the Dairy. For a catastrophic mortality event, the rendering services 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.

Although the New IJsselstein Dairy does not initially intend to use mortality composting, it proposes to construct a separate concrete pad that could be used specifically for mortality composting in the future.

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 you 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>

Also see response to comment 6 above.

**15. Insect and Rodent Control**

Concerns that insects and rodents are going to be a problem and that the insects will carry diseases.

*“Supposedly these farms are going to be treated for insects every month. Guess what! The life of a housefly from larvae to adult is 7 to 10 days. Mosquito is 4 to 7 days. They carry so many diseases.”*

*“How many flies and how many rodents would be considered an acceptable amount for the flies and rodents management in the application? What would be done to decrease the numbers; and, who would be responsible to get it done?”*

**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 are now considered officially part of the Plan, as 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.

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.

All environmental regulatory programs rely on self-reporting by the owner or operator of any facility. The penalties for lying on required reporting can often be greater than penalties for pollution. These sanctions can include the suspension or revocation of the permits. Inspectors ensure that reporting is reliable by surprise investigation, complaint investigations, and by relying on the inspector’s expertise to determine that records are unreliable. ODA inspectors routinely include on their inspection reports a comparison between the inspector’s evaluation of insect populations and the results reported by the operator.

U.S. EPA recognizes that successful manure management is dependant upon tracking water levels and moisture levels, including leak detection and leak repairs. ODA includes these federal rules in OAC 901:10-2-08(A)(4):

(4) At a minimum, the following must be inspected, performed, monitored or maintained at the manure storage or treatment facility and documented in the operating record:

\* \* \* \*

(f) Inspect liquid manure volume weekly and note in the operating record the level of liquid manure in manure storage or treatment facilities by the depth marker required in paragraph (A)(4)(o) of this rule.

\* \* \* \*

(i) Conduct weekly inspections of stormwater or diversion devices, runoff diversion structures, devices channeling contaminated stormwater to the manure storage pond or manure treatment lagoon and note proper operation and maintenance in the operating record.

\* \* \* \*

(n) Inspect drinking water lines daily, including drinking water or cooling water lines that are located above ground, readily visible or accessible for daily inspections, and record in the operating record.

\* \* \* \*

(q) Actions to be taken means actions to correct any deficiencies found as a result of the inspections conducted under this rule. Deficiencies are to be corrected as soon as possible and listed in the operating record in accordance with rule 901:10-2-16 of the Administrative Code.

ODA thus requires farms, in their operating records, to keep track of these items and also of any actions taken to correct any deficiencies.

The Insect and Rodent Control Plan for New IJsselstein Dairy includes weekly monitoring and recording of flies using 4 note cards and responding when there are more than 50 fly specs per card, with treatment consisting of increased spraying frequency. A commercial pest control firm will assist to provide fly control and inspections, generally during the spring and summer months. Rodent bait stations will be monitored monthly for increased activity and refilled, if necessary.

The draft Permit to Operate contains the complete Insect and Rodent Control Plan. 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.

**16. Odors**

Many comments received concerning the amount of odors that would come from the site.

*“This proposed Mega-Dairy would be located directly south/southeast of our subdivision. I am very concerned about the wind blowing unmentionable foul odors into our neighborhood. The amount of dairy cows and amount of [manure] generated by these cows I know for certain my fears are well founded.”*

*“The smell from the barns alone will be horrendously awful. I grew up next to a small dairy farm and the barn smell is always there. Noxious odor happens when manure happens and 2200 happenings create 2200 awful smells!”*

**Response:**

Odor minimization is required by ODA rules in the Permit to Install and the Permit to Operate. In the Manure Management Plan of the draft Permit to Operate, New IJsselstein Dairy has identified specific best management practices listed in Ohio Administrative Code Rule 901:10-2-12 to minimize odor, including removal, transfer, and application of manure when wind direction is less likely to affect neighboring residences and injecting and incorporating manure when at all 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.

**17. Background Checks**

*“As explained in the Compliance History for the N.I. Dairy, Vreba-Hoff has an appalling environmental record. Explain why Director Boggs approved the compliance history for N.I. Dairy since it included ownership involving Vreba-Hoff companies.”*

*“It was mentioned that Vreba-Hoff's name was not listed as an owner or person of interest even though it was purported that they are. Are they a single investor or part of another group with a vested interest? Will Vreba-Hoff be a consultant to the dairy owners? If so, I understand that background checks are done on the owners and/or persons of interest. Is this correct? Have you done background checks on all owners and persons of interest? Shouldn't this information be a part of the permit?”*

*“New IJsselstein Dairy Permit Questions.*

*To question 4, Please list the names(s) of caffs that the Owner applicant has operated immediately preceding this submission. ANSWER: New IJsselstein Dairy Leasing, LLC, has not operated a CAFF in Ohio Mr. Nieuwenhuis has not owned or operated a caffo in OHIO.*

*Hopewell Dairy, is a permitted CAFO, in Mercer County with 2100 dairy cows. Has this been revised on the final application to show this ownership?”*

*“In the application for a permit for this dairy the owner, New IJsselstein Dairy Leasing, LLC with the sole owner being Midwest Dairy, 2404 Darcy Court, Perrysburg, Oh 43551, # 419-874-2960, Mr. Aldert Nieuwenhuis, President states that in question # 5 - List the names of AFF and CAFF that the applicant has operated during the five years. Answer,*

*New IJsselstein Dairy Leasing LLC has not operated a AFF or a Cafo in the United States. Aldert Niewwenhuis, President of Midwest Dairy Investments, LLC has not an owner or operated an AFF or CAFF in the United States.*

*Currently, he states that as of Jan 6<sup>th</sup>, 2006 Midwest Dairy owns Oolman Dairy Leasing in Paulding County. Antwerp, OH. Not planned to be operational till after 2006. Also that Midwest Dairy Inv, LLC owns Hopewell Dairy leasing as of 3-10-06, in Mercer County, Rockford, Ohio. At the present time per the ODA web site Hopewell Dairy Leasing is a permitted facility with 2100 dairy cows. Why did he not disclose that this Dairy was going to be a CAFF at that time?”*

*“The latest revision does show a new owner and while the SC-CPR has continually requested all changes, the latest changes were never sent. However, at the public meeting, I reviewed the section on owners, and it shows new owners, including Vreba-Hoff; a continual habitual polluter and that fact alone is grounds for denying the permit. They have been fined in Ohio and Michigan numerous times. What is your justification for accepting this part owner that has mismanaged Cafo's in Ohio and continuously pollutes the water of our state to the detriment of public health and safety?”*

*“The ODA rules require a compliance history or environmental background evaluation of owners and operators of a CAFO facility. Although Vreba-Hoff may not be an owner or operator of the New IJsselstein Dairy, Vreba-Hoff does have controlling interest and is a consultant, and has a non-compliance history in Ohio, as well as in Michigan and Indiana. Given the relationship of Vreba-Hoff with the proposed New IJsselstein Dairy, we feel that Vreba-Hoff's past history should warrant a denial of the permits to New IJsselstein Dairy.”*

*“PLAYING FIELD should be LEVEL for all interested parties: If the dairy owners are allowed to cite their ‘good’ CAFOs in other states and countries in their promotions and arguments for establishing two CAFOs between Woodville and Gibsonburg, why were we told at the presentation that we could not cite reports of violations and problems at existing CAFOs such as those being reported in the Toledo Blade about a CAFO in Michigan? And that even if we did cite them, the ODA would consider them as irrelevant and not take them into account when making the decision on the permit?”*

*“If they (Vreba-Hoff) were listed in this permit, they would have to list the dozens and dozens of violations that they have everywhere, the almost willful disregard for the rules and regulations. Because of that because, of what I think is an intentional omission of them being in this, this CAFO, this permit cannot be issued for this CAFO the way that stands now.”*

*“Vreba-Hoff Dairy Development, a person in control of New IJsselstein Dairy, is unable to demonstrate compliance in this or any other state. While everyone is aware of the repeated violations identified by the DEQ in Michigan, Vreba-Hoff's recent violations in the State of Ohio were outlined by Ohio Attorney General Marc Dann in a Complaint filed against Vreba-Hoff Dairy Development, LLC and Vreba-Hoff Dairy Leasing, LLC in the Fulton County Court of Common Pleas on July 20, 2007. The Complaint alleges violations of the National Pollutant Discharge Elimination System General Permit for storm water discharges associated with construction and Ohio Revised Code 6111 (Surface water). In total, the Complaint alleges permit violations relating to construction activities at twenty dairies located in the following counties: Defiance; Fulton; Hardin; Henry; Madison; Marion; Paulding; Putnam; Van Wert; Williams and Wood. Each count relates to violations at a different dairy where Vreba-Hoff has either failed to obtain the required storm water permits prior to engaging in construction, failed to install measures to control or prevent construction storm water discharge to streams, or failed to comply with the permits once coverage was granted. Such violations are pending administrative enforcement actions or civil suits which must result in denial of the permit pursuant to OAC 901:10-1-03(B)(1)(a)(ii). How can the ODA issue a permit to New IJsselstein Dairy*

*when Vreba Hoff Dairy Development, a person in control of New IJsselstein Dairy is unable to demonstrate compliance?”*

*“Pursuant to the provisions of Ohio Administrative Code 901:10-1-02(A)(4)(a), the New IJsselstein Dairy application shall include ‘information on ownership and background ...’ which includes the name and address of ‘any other person who has a right to control or in fact controls management of the applicant ...’ It is clear from the New IJsselstein application and the documentation in the ODA’s file on such application, that Vreba-Hoff Dairy Development, LLC is in control of New IJsselstein Dairy and Petrus J.A. Van den Heuvel and Miranda C.F. Bex-Van den Heuvel but is not disclosed as a party in control. There are numerous direct correspondences between the LEPP and Vreba-Hoff and Vreba-Hoff’s attorney. Such non-disclosure of the control of Vreba Hoff Dairy Development is misleading therefore the permit should be denied pursuant to 901:10-1-03(A)(l). How can the ODA authorize a permit to install or operate to New IJsselstein Dairy when Vreba Hoff Dairy Development is clearly a person in control and is not disclosed as a person in control on the application?”*

*“Are there current violations for non-compliance of permit regulations in Ohio pertaining to dairy farms with over 700 head, - are any of these violations involving dairy farm operations that have mailing addresses of Vredeweg 6; 5816 AK Vredepeel, The Netherlands, or Vreba-Hoff, 1290 Shoop Ave. #140, Wauseon, Oh. 43567 US?”*

**Response:**

Some of the comments pertain to information on file at ODA that is old information submitted in an earlier version of the application. As reported in the Compliance History for New IJsselstein Dairy Leasing, LLC and New IJsselstein Dairy, LLC, Midwest Dairy Investments, LLC sold its ownership interests in New IJsselstein Dairy Leasing, LLC to Ohio Dairy Holdings, LLC before the draft permits were issued. Midwest Dairy Investments, LLC and its president, Aldert Nieuwenhuis, are no longer owners of New IJsselstein Dairy Leasing, LLC.

The applicable law governing the compliance history portion of the application is Section 903.05(B) of the Ohio Revised Code:

If the applicant for a permit to install or permit to operate has been involved in any prior activity involving the operation of an animal feeding facility, the director of agriculture may deny the application if the director finds from the application, the information submitted under divisions (A)(1) to (3) of this section, pertinent information submitted to the director, and other pertinent information obtained by the director at the director’s discretion that the applicant and persons associated with the applicant, in the operation of animal feeding facilities, have a history of substantial noncompliance with the Federal Water Pollution Control Act, the “Safe Drinking Water Act,” as defined in section 6109.01 of the Revised Code, any other applicable state laws pertaining to environmental protection, or the environmental laws of another country that indicates that the applicant lacks sufficient reliability, expertise, and competence to operate the proposed new or modified concentrated animal feeding facility in substantial compliance with this chapter and rules adopted under it.

According to information made available to ODA, Vreba-Hoff Dairy Development, LLC is a dairy developer and does not intend to own or operate New IJsselstein Dairy, LLC. Vreba-Hoff Dairy Development, LLC is thus not an applicant on the New IJsselstein Dairy permit application. Vreba-Hoff Dairy Development, LLC is a wholly owned subsidiary of Vreba-Hoff Holdings, LLC, which is jointly managed by Mr. John Vander Hoff and Mr. Wilhelmus (Willy) Van Bakel. Vreba-Hoff Dairy, LLC, which runs dairies that are the subject of litigation in Michigan, is also a wholly owned subsidiary of Vreba-Hoff Holdings, LLC.

Willy Van Bakel is a person who has a right to control Vreba-Hoff Holdings, LLC within the meaning of ORC 903.02, 903.03, 903.04, and 903.05 and is a person with a right to control both Vreba-Hoff Dairy, LLC and Vreba-Hoff Dairy Development, LLC through his status as a manager of Vreba-Hoff Holdings, LLC. Therefore the violations of those companies, over which Mr. Van Bakel has possessed a right to control, are relevant in assessing the compliance history of Mr. Van Bakel.

However, New IJsselstein Dairy's application does not place Mr. Van Bakel in control of the proposed New IJsselstein Dairy's ownership or operation. New IJsselstein Dairy is proposed to be operated by New IJsselstein Dairy, LLC, whose only members are Petrus J.A. Van den Heuvel and Miranda C.F. Bex-Van den Heuvel. New IJsselstein Dairy, LLC is not affiliated with either Mr. Van Bakel or the Vreba-Hoff companies. New IJsselstein Dairy would be owned by New IJsselstein Dairy Leasing, LLC, which is a wholly-owned subsidiary of Ohio Dairy Holdings, LLC.

While Mr. Van Bakel has a minority interest in Ohio Dairy Holdings, LLC through his interests in other companies, that interest is less than 50% of the equity of Ohio Dairy Holdings, LLC, which renders Mr. Van Bakel not an owner under the definition of that term contained in OAC 901:10-1-01(PPP). Moreover, ODA has received copies of the operating agreements of Ohio Dairy Holdings, LLC and New IJsselstein Dairy Leasing, LLC, and a copy of the lease between New IJsselstein Dairy, LLC and New IJsselstein Dairy Leasing, LLC. The operating agreement documents for New IJsselstein Dairy Leasing, LLC and Ohio Dairy Holdings, LLC deny Mr. Van Bakel a right to participate in the control of these companies, despite his equity interest in them:

“Notwithstanding any other provision of this [Operating] Agreement or applicable law to the contrary, in any instance in which action is taken or to be taken or considered by the Member of the Company, whether by vote, by written consent or otherwise, no Restricted Person shall be entitled to vote or provide or withhold such Restricted Person's consent, or otherwise participate, directly or indirectly, in the action of such Member, whether such Restricted Person is a direct or indirect member, shareholder, director, officer, employee, agent or representative of any parent entity of such Member, whether a direct or indirect parent entity and however remote. For purposes of this Agreement, “Restricted Person” means (a) Wilhlemus Henrikus Maria (Willy) Van Bakel, and (b) W.H.M. van Bakel Beheer V.V., a Netherlands private company having limited liability.

The lease agreement between New IJsselstein Dairy, LLC and New IJsselstein Dairy Leasing, LLC establishes the roles and responsibilities of New IJsselstein Dairy, LLC as

the operator of the dairy and New IJsselstein Dairy Leasing, LLC as the property owner/landlord.

Because New IJsselstein Dairy Leasing, LLC and its parent, Ohio Dairy Holdings, LLC have been organized to restrict Mr. Van Bakel from management and day-to-day control of those companies, W.H.M. Van Bakel's background to manage or control Vreba-Hoff Dairy, LLC and Vreba-Hoff Dairy Development, LLC is separated from Ohio Dairy Holdings, LLC and New IJsselstein Dairy Leasing, LLC, the owner-applicants on the permit. Mr. Van Bakel's background should not be imputed as giving him an ability to manage or control Ohio Dairy Holdings, LLC or its subsidiaries. None of the people who have a right to control management of the permit applicants have a history of substantial noncompliance with the environmental laws of Ohio, or any other state or country under R.C. 903.05(B) and OAC 901:10-1-03(B).

Staff relied upon information that “[T]he members of New IJsselstein Dairy, LLC operated an animal feeding facility in Gemeente IJsselstein, The Netherlands. As reported by the regulatory authority for IJsselstein, “there were no environmental issues found by the authorities since the operation began in 1981.””

New IJsselstein Dairy Leasing LLC has as its sole member, Ohio Dairy Holdings, LLC and its manager, Henricus (Rene) H.J.M. van Bakel. Neither New IJsselstein Dairy Leasing, LLC nor H.J.M. Van Bakel have operated an AFF or a CAFF in Ohio or elsewhere in the United States in the past five years immediately preceding this application.

Van Bakel Exploitiemij, BV, is the parent and sole member of Vreba Melkvee, BV, which operates Vreba Melkvee, BV in the Netherlands. Based on letters from the Venray regulatory authority in the Netherlands for Vreba Melkvee, BV and based on statements asserted by the Applicants, there have been no violations during the past five years for this dairy located near the town of Vredepeel in the City of Venray. No administrative, civil or criminal violations have occurred during the five years immediately preceding the submission of the application for permits in connection with any violation of the environmental laws of that country.

### **18. Permit Compliance**

*“Do the manure spreading contracts allow for the state to monitor through a third party? How do we know if the manure is not spread in the winter, or within 300 feet of a river, or 150 feet from a well, or 100 feet from a house? If any of these things are violated will the permit be pulled? Is there a zero tolerance in place or will the state look the other way for years until a cover up can be orchestrated? Why not involve the citizens action committees in the ongoing monitoring process, if it is so simple there cannot be any propaganda swaying it one way or the other. Is the process open to public?”*

*“ACCOUNTABILITY/COMPLIANCE: Does the ODA have the money and personnel to really ‘ride herd’ on and keep a constant watch on the practices at these dairies, and have the clout to shut them down at the very first sign of problems and/or non-compliance? If not the ODA, then who/what agency?”*

*“Violations without strictly enforced penalties are worthless. Who sees to it that any fines imposed are collected? Is there a time limit for them to pay? How long? Where does the money collected, go; and, what is it used for?”*

**Response:**

The ODA is responsible for oversight and enforcement at New IJsselstein Dairy. ODA has authority to enjoin the facility to comply with Ohio law and to obtain civil penalties through referrals to the Ohio Attorney General’s Office under R.C. 903.16. ODA can also issue administrative enforcement under R.C. 903.16, which can include demands for administrative penalties if a facility fails to return to compliance after being notified of the violation through a NOD (“Notice of Deficiencies Resulting In Noncompliance”). For minor violations, the enforcement response may begin with a written warning letter from the inspector or the Executive Director of LEPP, notifying the facility of the violation and demanding a return to compliance. Through the permits review process, ODA can deny renewal permit applications or revoke permits under RC 903.09(F) and OAC 901:10-1-03 if the facility is not operated in substantial compliance with environmental laws.

Which type of enforcement action is taken by ODA depends on the nature of the violation, whether it is a repeat violation, and the environmental harm caused. Enforcement actions taken by ODA are part of the public records of the Department. LEPP maintains a list of all enforcement actions taken by this program since its inception.

**19. Operator Experience**

*“Lastly, Permit requirements state that the operator shall have comparable experience with the operation being permitted. You are saying that the Operator has to have CAFO experience on a similar size facility?*

*Please show where he has had this experience with 2100 dairy cows?*

*Where has he operated a cafo of this size? Has he worked on a cafo in the US anywhere? I don't believe he is allowed to work for anyone under his Immigration Visa?”*

*“Experience with 70-100 cows in the Netherlands is not experience.”*

**Response:**

The members of New IJsselstein Dairy, LLC—the operators—must be familiar with ODA rules applicable to their operation including sanitation rules administered by the ODA Dairy Division and the rules administered by the Livestock Environmental Permitting Program. LEPP rules require recordkeeping of daily and weekly inspections in the Operating Record with frequent reference to rules and permit requirements, and the permits are written in such a way that each permit requirement refers to the rule to be followed. ODA does not have legal authority to impose a specific level of experience (such as a number of years of experience) upon a potential operator, but the members of New IJsselstein Dairy, LLC are required and will be expected to fully comply with the law and their permits to the same level as any other experienced operator.

**20. Permit Renewal**

*“At the end of the five year permit what will happen? Shouldn't the permitting start all over again? This will give the operators a chance to prove they are good neighbors and*

*more than just a pile of manure, maybe they will change some minds, the investors need to be aware of the future failures.”*

**Response:**

The Director may deny, modify, suspend or revoke operating permits provided that such action is supported by facts and law. See RC 903.09(F). This includes applications for renewal permits.

The permit holders must apply for renewal of their Permit to Operate every 5 years and if they ever want to expand they must apply for a new Permit to Install and Permit to Operate for the expansion.

**21. NPDES Regulations Listed in Permit**

*“Explain why the New IJsselstein Permit lists NPDES regulations throughout this Permit but the LEPP regulations do not comply with NPDES regulations.”*

**Response:**

It is not clear which parts of the LEPP regulations the commenter believes do not comply with NPDES regulations. At present, ODA seeks but has not been awarded authority to implement the NPDES program in Ohio in place of Ohio EPA. Nevertheless, in developing a regulatory program to satisfy federal NPDES requirements, ODA rules are written so that a facility that has a permit as a concentrated animal feeding facility under Ohio law will also be able to satisfy NPDES requirements for a concentrated animal feeding operation under federal law.

**22. Health Department**

*“Does our local Health Department have any rights to check up on the operation?”*

**Response:**

The local Health Department always has the right to investigate any private water wells or potential public nuisance.

**23. Health Department and EPA**

*“Will the ODA give our local Health Department and the EPA a copy of the permit so they can judge if the dairy is complying with its permit?”*

*“Is it possible for the ODA to have the EPA and Health Department look at this specific permit to see if they have concerns and suggestions to improve it?”*

**Response:**

Copies of the draft permits were mailed to the Sandusky County Health Department and the Ohio EPA for their review on September 26, 2007. They both have had the opportunity to provide comments.

Both will receive copies of any final permits.

**24. Local Notification**

Requests that no permits be issued until Madison Township Trustees have consultation with the applicants.

*“Because the Woodville Village Council opposes construction of a large scale dairy farm and the Village was denied information specifically requested on three different occasions, New IJsselstein Dairy cannot provide documentation or correspondence that verifies it has consulted with local officials who specifically requested information. Will the ODA issue a final permit to New IJsselstein when the local officials of the Village that is located less than 1.5 miles from the proposed dairy requested an impact study on three different occasions but never received it?”*

*“The Mayor of the Village of Woodville indicated that he and/or the village council had requested an impact study and meeting with the owners. Is it true that this request was ignored? How can the ODA allow IJsselstein or Vreba-Hoff to ignore this request?”*

*“In closing, I'm asking the Director of the ODA, on behalf of the Council and the residents of Woodville to deny this permit as stated in Resolution 14-2006 and deny this permit until the ODA meets with local officials, including the Council to discuss concerns, and deny this permit until the owner/operators of the mega farm consult with local officials, including commissioners and trustees to address infrastructure needs and financing of the infrastructure as stated in the Ohio Administrative Code.”*

**Response:**

Current Administrative Code rules require permit applications to “contain documentation or correspondence that verifies that the owner or operator has consulted with local officials, including boards of county commissioners or boards of township trustees to address infrastructure needs and financing of that infrastructure.” OAC 901:10-1-02(A)(7). New IJsselstein Dairy submitted to ODA copies of certified mail letters it sent to the Sandusky County Commissioners and Woodville Township Trustees that notified these public officials of plans to build the dairy and of intended travel routes for traffic related to the operation of the dairy farm. The correspondence indicates that the applicant offered to meet with these local officials to discuss issues related to the impact to local infrastructure. The intent of the ODA rule is to open up the lines of communication between the applicant and local governments so that local officials can anticipate and discuss infrastructure needs with the dairy applicant, and so that the applicant can seek advice or information from the local officials. The documentation submitted by the dairy complies with the rule because it verifies that the operator, New IJsselstein Dairy, LLC, provided notice to, and invited communication from the local county commissioners and township trustees. New IJsselstein Dairy is not located within the jurisdiction of the Village of Woodville, and ODA does not possess any information that suggests the dairy will be using infrastructure of the Village as part of its operations.

**25. Self Reporting**

*“It seems to me that the ODA is satisfied with the dairy's self monitoring of millions and millions of gallons of raw sewage for all eternity, when does the ODA step up, where is the teeth in the process? ‘Quis custodiat ipsos custodes’, who guards the guards?”*

**Response:**

There is not a set percentage of self-monitoring versus monitoring conducted by ODA for each facility. Like most environmental programs, ODA relies on a combination of self-reporting obligations imposed by law upon the owner and operator of the dairy, and on

ODA data collected through its own routine inspections, follow-up inspections, and complaint investigations. The owner and operator are required to collect and document results about their own facility operations, such as manure analyses, water well tests, and the performance of routine and maintenance inspections. ODA uses its own inspections and investigations to confirm that each farm's records are being consistently and accurately maintained, and to compare ODA results with the facility's records to see if there are discrepancies. This practice is similar to other environmental programs in the state of Ohio. For example, NPDES permit holders sample their own discharges and self-report the data (including any violations) to Ohio EPA in discharge monitoring reports. Ohio EPA has the authority to conduct its own sampling at any time to confirm the accuracy of the discharger's sampling reports, although it can also bring enforcement against a facility based only on the self-reported data. Likewise, public water systems routinely collect samples from their own water taps for analysis by EPA-certified labs.

## 26. Inspections

*"How often will these farms be inspected? Will it be surprise inspections? Will these inspections be public knowledge and how would we get copies of these reports?"*

### Response:

Inspections are at least twice per year. If any violations are discovered, follow-up inspections are performed. Limited inspections are performed as needed: a limited inspection may be conducted for a check on construction or inspection records or for insect and rodent control. Surprise inspections may occur in some circumstances. All inspection reports and complaint investigation reports are maintained as public records.

## 27. ODA Inspectors

Concerns that the number of ODA inspectors will not be adequate to monitor the whole state of Ohio.

*"I don't believe four ODA inspectors can control and monitor this factory and I don't believe they care enough to do it themselves."*

*"At a previous meeting I asked Kevin Elder what the qualifications were of the people who actually go out and do the inspecting, and he said they take a couple of classes. I have taken a couple of geology classes so I asked him if I could apply."*

*"The frequency of inspections to be conducted by the New IJsselstein Dairy operator does not comply with best management practices as defined by OAC 901:10-1-01(O) and is wholly inadequate to minimize water pollution and protection of state waters as it fails to ensure proper management of dead livestock as required by rule 901:10-2-15."*

### Response:

ODA conducts routine inspections twice per year and will conduct additional inspections if there are compliance violations noted during routine inspections and/or complaints. Prior to ODA oversight, staff at Ohio EPA were only available to investigate complaints on permitted facilities and routine inspections were not performed on a regular basis. All of ODA's inspectors are highly qualified and skilled at what they do, and have education and experience with livestock production, nutrient management, and environmental and water quality training. The three agricultural engineers and the executive director of the

Livestock Environmental Permitting Program also can, and sometimes do, inspect farms for routine, compliance, and complaint related issues.

Not only do ODA staff review the farm's records, they visually inspect every aspect of the farm's operation and management that is required in the Permit to Operate. With their education and practical background, erroneous notations and computations in the Operating Records can be detected by the inspectors in the actual operation of the farm. If inspections reveal suspect information in regard to manure application, ODA can perform unannounced inspections at any time, including during periods of manure application.

U.S. EPA published on October 17, 2007, its "Clean Water Act National Pollutant Discharge Elimination System Compliance Monitoring Strategy for the Core Program and Wet Weather Sources." On page 2-6, at 2.D.1 (Large and Medium CAFOs with NPDES permits), "EPA recommends that states and regions inspect at least once every five years to determine compliance with the permit, including terms of the nutrient management plan." ODA's inspection frequency greatly exceeds the frequency specified in this U.S. EPA document.

## **28. Complaint Investigation**

*"What is your protocol for dealing with a complaint about a specific CAFO, for example if someone calls the ODA with complaints about flies or odor? What steps do you take at this point?"*

### **Response:**

LEPP contacts the inspector by cell phone and/or e-mail to assign the inspection or complaint investigation. As part of an investigation, the inspector will call the local soil and water conservation district and Ohio EPA to begin collecting any information available from those agencies. If ODNR's Division of Wildlife is involved, that Division will be contacted. The inspector will also contact the person filing the complaint directly if they leave their contact information and we will also send them a report on the investigation results if desired.

## **29. Clean up Costs**

*Why wasn't the dairy required to be bonded for any type of cleanup that will be needed?*

*"Who pays for a spill? Why not insist upon a state funded insurance program that each CAFO has to pay into, why not put their money where their mouth is, if not who? U.S. taxpaying masses. As a tax paying mass myself, I would be much less against this if I knew the failsafe method of a real problem. Where is the OSHA of the ODA?"*

*"Number one, who is liable and what liability coverage requirements are in place? The dairy will not be required by the State to carry any liability coverage related to contamination remediation."*

### **Response:**

The dairy owners and their insurance companies are responsible for cleanup costs. If necessary, ODA will use the Livestock Management Fund and then pursue enforcement measures to collect those costs from the farm.

**30. Closing Facility**

Concern over who pays for the closing and clean up of the facility should they not renew their permit in 5 years.

*“CAN THE OHIO DEPARTMENT OF AGRICULTURE HAVE THE CAFO BE BONDED OR SET UP A FUND TO TAKE CARE OF THE FUTURE UNSEEN PROBLEMS THAT MAY HAPPEN? LIKE AN INSURANCE POLICY THAT WOULD PROTECT THE CITIZENS IN THE AFFECTED AREAS.”*

**Response:**

Any facility that proposes closing must submit a closure plan as requirement of their permit (OAC 901:10-2-18). This specifies exact requirements to take the facility out of operation and to provide cleaning and closure to protect the environment. If a facility does not close properly or leaves the facility in place with manure still present, ODA has the ability to utilize funds in the Livestock Management Fund to properly address the closure and take enforcement actions on the facility to seek restitution for those funds expended.

**ODA HAS NOT RESPONDED TO THE FOLLOWING COMMENTS DUE TO THE FOLLOWING REASONS:**

- **THE COMMENTS ARE ON ISSUES THAT ARE NOT UNDER THE REGULATORY CONTROL OF THE DIRECTOR OF AGRICULTURE**
- **COMMENTS ARE ABOUT ODA RULES IN GENERAL NOT SPECIFIC TO DRAFT PERMITS**
- **REFERENCES TO NON-PERMITTED DAIRIES IN MICHIGAN AND/OR NON-PERMITTED FARMS IN OTHER STATES**
- **GENERAL COMMENTS OF NON-SUPPORT**
- **GENERAL COMMENTS OF SUPPORT**

**31. Comments Not Under the Regulatory Control of the Director of Agriculture****a. Roads**

Many comments concerning the roads and the financing of infrastructure needs.

*“The damage that their equipment will do to the road system will cost the people of this community more money in taxes that we can not afford.”*

*“Other than the presentation by Vreba Hoff, there has been no discussion with the Trustees as far as road uses, traffic flow for farm machine for manure and harvesting. What authority do trustees have in mud, manure, silage spilled on the roads because of this high volume?”*

**b. Property Values**

Comments that property values will decrease from the dairies coming in.

*“This Mega-Dairy would result in a decrease of our property value that we have worked to achieve our entire lives. We have always supported our local school, town and park levies to sustain our property values and make Woodville a great place to live and it is.”*

**c. Economics**

Many comments concerning who receives the monetary benefits and what are the economic benefits to the communities.

*“There is little to be gained on payroll taxes. Purchases in the local economy by the farm will be sales tax exempt for agriculture. There will be no sales tax revenues. There are no significant economic gains to this area to offset the tremendous risks we're taking.”*

*“Regardless the truth concerning the economic impacts of CAFOs on rural communities is very different from the propaganda of the promoters and their supporters. The truth can be seen most clearly in communities where CAFOs have been embraced or at least accepted as a promised strategy for rural economic development. After several decades of large-scale contract poultry and beef production, more than a decade of large-scale hog production, and the more recent proliferation of the CAFOs into dairy, not a single community where CAFOs exists represents a significant segment of the local economy is looked upon today as a model role of economic success or prosperity. Admittedly, corporations tend to locate CAFOs in areas where they are economically depressed, but CAFOs have consistently failed to bring about significant improvements in either unemployment or overall economic well-being of the local residents.”*

*“When you do the math, I believe you will find this a drain on the local economy, not a boost, especially when you factor in potential infrastructure costs that will likely be the responsibility of local government.”*

*“I believe an economic impact study should be done on how groundwater pollution from the New IJsselstein Dairy CAFO will affect the ONWR complex and the Lake Erie tourist industry.”*

**d. Air Quality**

Many comments received requesting that no permits be issued until the air quality studies being conducted by Purdue and others are completed.

*“What about our health, our breathing, our lungs. There are so many people on oxygen now. How will our air be after, if these factory farms come to our Sandusky County?”*

*“I am very concerned about a lot of things involving this Factory Farm. The quality of air that will surround this area will make it very difficult for very young children to breathe properly. It will also be harmful for the elderly that might already be on oxygen or just have a hard time.”*

*“How much methane gas will be given off from these pools? How much methane gas can be in the air before it starts affecting the health of area residents?”*

**e. Antibiotics**

Concerns over the use of antibiotics to control infections.

**f. Hormones**

Concerns over the use of growth hormones to increase milk production.

*“Perhaps one of my most important questions (after of course the fouling of the watershed for Woodville, Gibsonburg, Oak Harbor, etc) is to find out how much growth hormone they must give a cow to have to milk it three times a day. Young girls are now developing breasts at age 8 and 9 years. The average size of shoes for girls is now much larger than it used to be. I am a breast cancer survivor and I will never drink non-organic milk again.”*

*“I have questions about the use of hormones for cows to increase milk production. I have read frequently that there are 16 to 20 cautions on the labels of the hormones because of serious effects on the health of the cows. So these questions: if the additional hormones are given to cows, does that increase the amount of hormone in the milk from that cow? Do consumers receive higher levels of hormone from that milk? Does it cause health problems for the consumer? Can you regulate the amount of hormone in the milk? If not, how do you potentially protect consumer health?”*

**g. Pathogens**

*“Knowing that untreated manure from these industrial dairy farms is full of pathogens, why doesn't the ODA require pathogen treatment or at least monitoring of these dangerous pollutants?”*

**h. Bacteria**

*“The E coli problem has certainly not gone away. My question: are we to be concerned about E coli 0157:H7 developing in this community from the bodies of potentially challenged cows at these mega dairies - since it has been common around the country near other mega dairies?”*

*“Are bacteria levels required to be maintained or measured when they are close to a community?”*

*“There is definitely going to be the potential for large amounts of bacteria around these farms, and the bacteria isn't going to stay just in the immediate area.”*

**i. Health**

Comments received concerning general health problems caused by the dairies.

*“It is a travesty to believe that that much untreated sewage can be stored in one location without a health risk to something or someone sometime in the future!”*

*“What dangerous chemicals and dangerous pathogen microorganisms are in manure piles? Transmissible livestock diseases from pathogens do threaten humans. Examples*

*include Salmonella, E. Coli, Johne's, leptospirosis, listeriosis, TB, tetanus, anthrax, cryptospirosis. Dairy waste pressure not in liquid form contains highly concentrated form bacteria which is E. coli, which are potentially dangerous to human health and health of cattle."*

*"On June 19, 2006, Woodville Village Council passed a resolution opposing any permit of the construction of a large dairy farm until such time as the State can guarantee that the dairy farm poses no threat to public health and safety."*

**j. Milk Production**

*"What is the end use of this milk production?"*

*"Are these farms going to produce grade A or grade B milk? Where will the milk go and how will it be used? Will it go to southern states to be made into powdered milk, to be shipped overseas? We will be the ones stuck with the noise, stench, and pollution."*

**k. NPDES Permits**

*"Did the New IJsselstein Dairy apply for a General and a Discharge NPDES Permits?"*

**l. Illegal Immigrants**

*"Does the ODA monitor whether these factory farms use illegal immigrants?"*

*"What will the national origin of this dairy's work force be & are they citizens of the USA, & will they be checked by U.S. immigrations dept.?"*

**m. Fire Chief**

*"Do the trustees have any authority (Fire report to the trustee) to have our own monthly inspections? No one has talked to the Chief for needs to protect this plant or special training required."*

**32. Comments About ODA Rules in General and Not Specific to Draft Permits**

*"It also seems incredibly unfair for the public to get 30 days to review a permit, while ODA took two years with far more resources. Permitting consideration provides the permit applicant ongoing dialogue with the agency while not providing the public with any similar parity. The comment period is too short and ODA over the two year review should have provided periodic opportunities for input in the decisions to level the playing field."*

*"In addition, after having read a Toledo Blade article concerning a Vreba-Hoff confined animal feeding operation having illegally transported some of its Michigan manure to an unfinished Lyons, Ohio, facility, I'm dismayed to read that the Ohio Department of Agriculture only sent them a letter stating it reserves the right to consider enforcement action against Vreba-Hoff for unauthorized use of a Chesterfield dairy. What good are all of ODA's rules and regulations if they are not enforced? This is the exact reason people oppose these farms in this area. It's been proven over and over again that there's simply not enough adequate oversight of these types of operations in the State of Ohio."*

### **33. References to Non-Permitted Dairies in Michigan and/or Non-Permitted Farms in Other States**

*“These operations are constantly in the headlines regarding struggles with manure run-off, violations of every sort, court ordered clean ups, too many major legal problems resulting from the huge amount of manure, as well as the insects which spread disease that are sure to follow. It doesn't matter how many promises they make about following the current rules and regulations if they can't or won't follow through on them, which is the case in neighboring MI. According to the Environmental Protection Agency, hog, chicken and cattle waste has polluted 35,000 miles of rivers in 22 states and contaminated groundwater in 17 states.”*

*“Finally I would call your attention to the vast number of problems that the mega-farms are having in Michigan to try and meet the EPA requirements that they promised to comply with. Numerous warnings and fines have been dealt out to these farms and as far as I know they are still not in total compliance.”*

*“The operators of these plants have proven to be irresponsible and are cited and fined for abuse of environmental laws.”*

*“Michigan has clearly documented many of these Public Health problems in the area of their Factory Farms--people got sick, the area was subject to very foul odors and lots of flies and other insects, and this spread various kinds of disease. This totally affects the quality of life and the property values in the surrounding areas.”*

*“I find it quite disturbing to hear representatives of the Ohio Department of Agriculture state that all correspondence and testimony related to the Scott Township and Woodville Township proposed CAFO refer only to matters concerning CAFOs within the State of Ohio and not to similar operations in other states such as Michigan. The reading material provided to us on our Hudson, Michigan, CAFO tour is used as promotional material in the State of Ohio by Vreba-Hoff Dairy Development LLC. This Ohio-related CAFO material contains testimony from a Michigan business supporting CAFOs. If Vreba-Hoff can promote these CAFOs in Ohio, using testimony from Michigan sources, why are Ohioans prevented from using Michigan sources to oppose these operations?*

*The provided material also contains statistics from Wisconsin, Pennsylvania, South Dakota, Minnesota, Indiana, Texas, Georgia and Michigan sources as well as information from Canada, Great Britain, Australia, and Europe.”*

### **34. General Comments of Non-Support, Comments Not Specific to the New IJsselstein Dairy's Draft Permits and how They Comply with ODA Rules.**

Received many general comments of non-support for the proposed CAFFs in Sandusky County and the entire state.

*“I have read that there are regulations for the operation of the mega dairies to operate by. I have also read about the complaints from neighbors and violations from the dairies. I feel that the DOA is understaffed and can not check on them as much as they should be. I feel that checking records at least twice a year is not enough and checking the fields where the manure is spread checking every 3 years. There could be violations of over application of manure.”*

*“Who told Hillbex/IJsselstein that our very populated area would be a great place for their mega dairy factories? These Mega dairy factories bring nothing to our communities. Gibsonburg would be in the middle of a toxic waste dump and no matter how you do the calculations there is no way you could utilize all 61,000,000 gallons of untreated cow manure that Hillbex/IJsselstein will produce, let alone all of the pesticides and harmful poisons that will be used to control insect and varmint infestation.”*

*“By allowing these mega dairy factories you will strip away the charm & family living that people flock towards and you will make our area one of the least desirable places to live.”*

*“A development for 2,200 homes would be required to include a waste treatment facility fully compliant with state, local and federal clean water standards. Yet solely because of political legerdemain, an agency of the state that cares more about protecting its turf than the public interest is about to once again let those special interests it protects spread untreated waste on the ground. The notion that factory farms are somehow entitled to the traditional protections given true family farms cannot be accepted by honest people. It is human nature to hold onto one's power even as the real power base of family farms declines. Perverting the goals of this agency in order to preserve it does you no honor. In ten years when the factory farms have failed and seriously damaged the fresh water of our streams, rivers and lakes, the legacy of this intolerable action will be left to all of our futures. Will it really salve your conscience to claim that you were merely following the law? The law is intended to do justice, to protect a minority while serving the interests of the majority. No law gives anyone a right to place factory farms in locations that will damage irreplaceable resources that belong to all of us. In the long run the cost of this mistake will dwarf any claimed financial benefit from its approval, except for those corrupted by personal gain.”*

*“On August 3, 2006, the Council of the Village of Gibsonburg passed Resolution 2-2006 opposing the issuance of permits to establish confined animal feeding operations within Sandusky County, Ohio, and in support of a proposed moratorium on the issuance of permits within the state of Ohio.*

*Resolution 2-2006 urges the Department of Agriculture to withhold issuance of permits to establish confined animal feeding operations within Sandusky County, Ohio until all safety, air, and ground water quality issues have been fully addressed to the satisfaction of local government officials, thus allowing us to reassure our residents they will continue to enjoy clean air and water. We are not satisfied. We still have many unanswered questions.”*

*“We live directly in the middle of the areas proposed for the 2 dairy farms in western Sandusky County. We have attended information meetings, read numerous sources, and we were both raised on normal sized family farms. We are very alarmed at what may be in the future for us here. We have lived in Ohio our entire life and have worked hard to develop our residence and land surrounding it. It is a real shame that the Ohio Department of Agriculture is allowing farmers from another country to move here and destroy our quality of life.”*

*“Shouldn't the state be interested in a county commissioner who sold the land and is financing part of the deal? What about ethics? I know that Dan Liskai's name is not on the Black Swamp LLC, but only his family owns it nobody else.”*

*“At some time the state has to accept that anything over 700 cows is not a family farm enterprise but a full blown industry, and industrial rules and regulations need to apply.”*

*“Why were the owners/operators not at these public meetings proving they have nothing to hide and proving they want to be ‘good neighbors’ and good ‘family farmers’.”*

*“The ODA has an interest in agriculture not an interest in protecting the voting public, after all agriculture is the ODA's last name. What will we pay for this experiment in the long term 5, 10, 50 years from now. Is there any 50+ year experience in CAFOs in Ohio?”*

*“First, I don't see this as a dairy. I think it's more of a factory, it's not a family farm. It's not the commercial I seen about Wisconsin dairy that showed a cow in a green meadow with a pretty farm in the background. It's not that at all. It's a factory.”*

*“Now, my hope tonight would be that all these people that are opposed to the CAFO are all wrong. And my hope is that all those people that are proponents of it are all right. But I don't have a good feeling about either one of those, because I'm kind of thinking most of the people here are right. And it's wrong when we elect people that also appoint people, that those people then can't make a decision based on what a community wants. It's just wrong.”*

*“We need to be people of integrity who are held accountable for our actions. What is the legacy we are leaving our future generations by the decisions we make today? If we can't predict the long-term impact and the lasting repercussions this will have on our community, then we should not do it. Stand strong and stay united.”*

*“If Ohio's Department of Agriculture goes above and beyond what other states and the federal government requires, then shame on them and shame on us. And shame for everyone because where are the absolute assurances that the land-applied manure will not flow into the creeks and ditches that it is applied near as a run-off?”*

### **35. General Comments of Support**

Received general comments of support for the proposed New IJsselstein Dairy.

*“I am emailing you my support for the two mega dairies going into Sandusky county. We have lost Pioneer Sugar and will soon lose the Heinz Company. We need agribusiness back in the county. I live within 1/2 mile of the one going into Woodville. The only problem people have here with it is change. Gibsonburg drove out the Lime plants there and Woodville lost one due to people complaining now what does either town have to show for it except a lot less jobs and a loss of income.”*

*“We wanted to voice our support for the issuing of permits for the dairies in Sandusky County. We attended the permitting hearings that were held in Woodville and Gibsonburg. These public comment hearings had the threat of intimidation for those*

*requesting to be heard in support of the dairies and we felt it important to have our positive views heard. We live within 2 miles of where the proposed Woodville dairy will be built. We recognize the need to support agricultural development while supporting environmental responsibility. We feel confident with the ODA's permitting program and recognize that the agency has exceeded the established federal regulations. My wife grew up on a family farm and we still live on a farm. It is about time for people to understand NO FARMS = NO FOOD. Please remember there are people in these communities that support these dairies. Most of the farmers who support them are too busy to be heard because we are harvesting our crops to feed the same people who forget where their food originates.”*

*“I just wanted to voice our support of issuing the permits for the dairies in Sandusky County.*

*After attending the hearings and hearing some of the untrue comments that were made, it is more important than ever to voice our support of the dairies.*

*People just don't realize how these type of operations are regulated in Ohio.*

*‘There's no shortage of milk in Ohio, there's plenty on the shelves in the stores.’ ‘The reason the cows are so quiet is because they cut their vocal cord.’ These are just two comments that have been made. People are willing to listen to so many untrue facts. From fliers of dead cows lying around to fliers of swarms of flies, all kinds of negative literature has been circulated.*

*We are importing so many food items and other products that it is becoming a little scary. I would much rather have our milk and other food produced here.*

*The people from the state were treated very badly at both these hearings. At the meeting in Woodville, we noticed that if you would take out the people from Gibsonburg, Clyde, Fremont, Michigan, and dairy supporters, there was only a handful from Woodville.*

*I know that you are receiving many form letters opposing the dairies. Please remember that it is a small group that is opposing these dairies, but they are very vocal and very intimidating.”*

*“When you hear someone present fact without a source, ask yourself, from where does this information come. When someone talks about scores of alleged violations, ask yourself how many of these violations were confirmed, and what were the corrective actions.*

*Last week during a meeting concerning another large dairy, statements were made that the single dairy would pollute the entire Portage River watershed and Lake Erie. This is an interesting statement, given the fact that Sandusky County has only 32 percent of the number of beef and dairy cattle it had just 33 years ago in 1974. In that year, this county had 20,500 beef and dairy cattle. In 2007, only 6,500. And the surrounding counties in the Portage River watershed have similar reductions in cattle population. These statistics are from the USDA National Agriculture Statistic Service.”*

*“Now, let's talk about the application of manure. Liquid dairy manure is not spread on fields in open-air spreader. It is knifed into the ground similar to the way nitrogen is applied directly into the soil. This process reduces odors and significantly reduces the chances of run-off.”*

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

1. Added detail to Appendix K of the Groundwater Quality Monitoring and Assessment Program in the Geological Report, which included a Groundwater Assessment Plan.
2. Added condition in the Manure Management Plan (Section 3 of the Plan, titled “Manure Application Criteria”) that limits the maximum application rate and method of application on land application areas that are mapped as either Millsdale or Dunbridge. The Manure Application Plan was also revised to show single application rate at 5,000 gallons per acre on those fields identified with those soil types.
3. Watershed corrected to read Portage Watershed.
4. van Der Burgs phone number corrected.
5. The Sheriff, Health Department and NRCS phone numbers corrected.
6. Page 2 of the Subsurface and Siting Report has been changed to reflect the test pit investigation performed by Dragun Corp.
7. Sheet 10 of the Engineering Plans had the design engineer’s signature added.