

1 MS. MANNING: Good morning every one.  
2 Welcome to this our Illinois Pollution Control Board in  
3 the matter formally entitled: In the matter of:  
4 Livestock Waste regulations, 35 Illinois Administration  
5 Code 506. My name is Claire Manning and I'm chairman of  
6 the Illinois Pollution Control Board.

7 Before we begin formally our proceeding this  
8 morning, I would like to take the opportunity to explain  
9 a little bit about the Pollution Control Board, explain a  
10 little bit about our proceeding today and role of the  
11 government in this particular proceedings.

12 First of all, I'd like to take this moment to  
13 explain a little bit about the Pollution Control Board,  
14 it's comprised of seven board members, all of whom are  
15 acquainted with the consent of the senate. Four of ours  
16 are here today investigating really the importance of the  
17 regulations of the state of Illinois. It's rare we have  
18 four board members present at any one of our hearings.

19 To my left is Dr. Ron Flemal, who is  
20 presiding board member of this manner. To my right is  
21 Dr. Tanner Girard, Jerseyville. To Tanner's right,  
22 senior board member, Theodore Meyer. So the four of us  
23 are board members and we'll be making a decision  
24 ultimately in this matter proposed by the Department of

1           Agriculture. There are three others of us in our Chicago  
2           office who are busy today, but will be voting on the  
3           ultimate rules.

4                         This morning, I'd like to just explain also a  
5           little bit about what this proceeding is all about, who  
6           is here and that -- that sort of thing. Obviously, we're  
7           here to develop regulations pursuant to the Livestock  
8           Management Facilities Act. The livestock management  
9           facilities preciprative government within the Department  
10          of Agriculture, led by Chet Boruff and other state  
11          governments, the Illinois EPA, the Illinois Resources and  
12          Illinois Health Department. Those four representatives  
13          are here and will be testifying this morning and  
14          explaining the rule proposal to you.

15                        In addition to their proposal to the  
16          Pollution Control Board, we have various members of the  
17          board, and I'd like to explain to you a little bit about  
18          how we're going to deal with this proceeding.

19                        First of all, two really important women this  
20          morning, one is our court reporter. Our court reporter  
21          is probably one of the most important people because she  
22          is developing a record of what we do and say. We base  
23          our opinion on all the testimony, good sound science and  
24          questions from the public and that sort of thing. So

1 every word that we say is written down. It is very  
2 important when you want to question one of the witnesses,  
3 that you do so from the podium, that you make your  
4 question clear because she will be writing down  
5 everything that we say so that we can then understand it.

6 Those of you who are interested in our  
7 proceeding, our hearings in Galesburg, in Jacksonville  
8 and in Mr. Vernon, we have a web site on the internet and  
9 you can download our transcript from our proceeding from  
10 those hearings by contacting our web site. We have a  
11 blue folder, if you want to connect in to our web site.  
12 You can have information about this particular proceeding  
13 by doing that.

14 The other important lady I want to introduce  
15 this morning, our hearing officer. This woman controls  
16 the proceedings, Audrey Lozuk-Lawless, she's one of the  
17 attorneys with the board. She is the gatekeeper. She  
18 tells us whose turn it is to testify and that sort of  
19 thing. Audrey is our hearing officer.

20 The other people from the board, Marie  
21 Tipsord, attorney, assistant to Dr. Flemal. Cynthia  
22 Ervin, attorney to the chairman. Chuck Feinen, attorney.  
23 To his right, K.C. Poulos. Richard McGill. Anand Rao,  
24 one of our technical people. To his right, John Cross,

1 legislative liaison. And Mike Wallace, one of our  
2 hearing officers as well. The board is actually small,  
3 35 employees actually. So you can see with all the  
4 people that are here, we're really giving this a lot of  
5 attention because we have half of our office here today.

6 With those remarks, the final thing I would  
7 like to say, when we do develop this rule and act upon  
8 the proposal by the Illinois Department of Agriculture,  
9 the board has in recent years in all its rule making,  
10 attempted and strived for regulatory flexibility, while  
11 at the same time trying to provide for the utmost that's  
12 possible within the confines of regulatory. We'll do so  
13 in the parameters of the Livestock Facilities Act. We'll  
14 strive, as I said, for the utmost environmental  
15 protection, and that is our initiative today and that's  
16 what we'll be trying to do.

17 Those of you who have signed up to testify,  
18 we'll look forward to hearing your testimony. During  
19 your breaks, if you would like to talk to the hearing  
20 officer, feel free to do that. Thank you. You may  
21 begin, Audrey.

22  
23 MS. LOZUK-LAWLESS: Thank you, Chairman  
24 Manning. My name is Audrey Lozuk-Lawless, I am the

1 hearing officer in this matter. Today's regulation was  
2 proposed by the Department of Agriculture on November 22,  
3 1996. And what we'll do today, as far as the proceedings  
4 go, we'll start out with each of the agencies who are  
5 seated in the front, that would be the Department of  
6 Agriculture, the Department of Natural Resource, the  
7 Illinois Environmental Protection Agency and the  
8 Department of Public Health, give their summaries of what  
9 has happened over the last four hearings and their  
10 position on the proposal which is before the board today.

11 After each one of those agencies has given  
12 their summaries, then they will be entering exhibits  
13 which have been requested along these several hearings  
14 we've had in the past and entering other exhibits that  
15 are relevant. After they've entered those exhibits, I  
16 will ask if there are people in the audience that have  
17 questions of any of those witnesses that are up here  
18 today. And if you do have a question, please just raise  
19 your hand and wait till I acknowledge you. When I  
20 acknowledge you, I will ask you to come forward to that  
21 podium over there, and state in a clear voice so that the  
22 court reporter can accurately transcribe in the record  
23 what your name is, how you spell it, if you represent any  
24 group or agency, and then you can go ahead and ask a

1 question. At that time, we'll be allowing questioning of  
2 those agencies but we'll not allow testimony. So if you  
3 do start to give testimony, I will probably have to stop  
4 you and ask you to wait until later when we allow  
5 testimony from the members of the public.

6 After we have allowed that questioning, then  
7 we'll go to hear the testimony of those persons who have  
8 pre-filed testimony with the board, because the board's  
9 hearings are governed by procedural rules which are set  
10 out in the board's procedural rule book. So therefore,  
11 we allow pre-filed testimony, those who contacted the  
12 board to testify to go first, and then we go to everyone  
13 on the list. Just so that you know, that those people  
14 who then I will call will be sworn in. They will also be  
15 subject to cross questioning from any members of the  
16 audience or any of the agencies.

17 After we have finished with those people,  
18 then I will go in the back room and we have a sign up  
19 sheet if anyone wants to testify that didn't get the  
20 opportunity to pre-file their testimony, and then we'll  
21 get to all of those people, who will also be sworn in and  
22 subject to cross questioning.

23 If you want to participate today but you do  
24 not want to be sworn in or subject to cross questioning,

1           then I will encourage that you file a public comment with  
2           the board, and we give you the address later, and you can  
3           pick up anyone's card, file it with the board by November  
4           14th, before it has to be received. Oh, excuse me,  
5           February 14th, the board has to receive all public  
6           comments. So if you want to do that, certainly feel  
7           welcome to do so, and you wouldn't be sworn in today or  
8           subject to cross questioning.

9                        I'd also like to know if -- when I do  
10           recognize you, when you come forward to ask a question  
11           and you do start to give testimony, if it seems like I  
12           can stop you and wait for your testimony later, that's  
13           what I'm going to do. If it turns out you're giving some  
14           sentences, I just may swear you in right there, okay,  
15           just to let you know.

16  
17                        MS. FRITZ: I had a piece of paper over  
18           there.

19  
20                        MR. LOZUK-LAWLESS: Yes. Like I said before,  
21           we'll be getting to those people. But I understand what  
22           you're saying, you have pre-filed, I was just unaware  
23           that you were coming to this hearing. So we'll put you  
24           with the pre-filed people. I appreciate her bring that

1 up.

2 Please don't stand up and blurt out  
3 something. There's a lot of people here and I don't want  
4 it to get out of control. Thank you.

5  
6 MR. FLEMAL: I want to join in the welcome.  
7 It's good to see large interest for the subject we have  
8 before you today. I assure you it's important for us to  
9 have your input so we can make the best and most  
10 important decision on this that we can.

11 As it's been noted, this is our fifth hearing  
12 already. We're well into the subject matter on this  
13 proceeding. And to try to assist those of you who may be  
14 coming into the process at the moment, we've placed on  
15 the table behind us a number of documents, that as we  
16 progress through the day, you might want to be looking  
17 at.

18 I would like to call one of those in  
19 particular, board's first notice of opinion and order on  
20 this matter, it's a document that was dated December 5th,  
21 1996. On that date, the board, in compliance with  
22 regulations as to how we go about statute, about how we  
23 go about adopting regulations, produced for public  
24 awareness the text on proposed rule that we're talking



1 about today. You'll find, as we proceed through the  
2 hearing, people are going to be referring to, just for  
3 example, 506.301; if you're wondering what it is, in fact  
4 subject matter as documented has the full text of the  
5 rule and will let you know what that happens to be.

6 There are other items there as well the  
7 public participation that the board puts out, that will  
8 allow you to understand a little bit more about the  
9 board's situation. Today we're engaged in rule making,  
10 protesting several activities that the board engages in.

11  
12 MS. MANNING: Is there a state or local that  
13 would like to be introduced? Somebody from the Champaign  
14 County Board may be joining us later.

15  
16 AUDIENCE MEMBER: I am a board member.

17  
18 MS. MANNING: Okay, welcome again.

19  
20 MS. LOZUK-LAWLESS: I would like to refer --  
21 Mr. Flemal referred to the board's orders; I as the  
22 hearing officer, I will put up for -- a sign up for  
23 notice list. I'm sure several of you are on the notice  
24 list, but I will put that out if anyone would like to

1 receive any of the board's orders as part of the  
2 proceeding.

3 If you're sworn in and testifying, we'll  
4 accept all information, as long as it is relevant to the  
5 procedure and not repetitious according to the board's  
6 procedure rule. If you would like to swear them in.

7

8 (Panel sworn in.)

9

10 MR. BORUFF: Good morning, chairman Manning  
11 and members of the Illinois Pollution Control Board. My  
12 name is Chet Boruff and I am employed by the Illinois  
13 Department of Agriculture as Deputy Director for the  
14 Division of Natural Resources.

15 At today's hearing, I will be offering a  
16 summary of the written testimony which the Illinois  
17 Department of Agriculture entered into evidence with the  
18 Pollution Control Board at its hearing in Jacksonville.  
19 At that time, two other employees of the Illinois  
20 Department of Agriculture, Scott Frank and Warren Goetsch  
21 to my left, also presented testimony relative to the  
22 proposed rules. Mr. Frank and Mr. Goetsch will  
23 not be providing a summary today, but will be available  
24 for questioning as the hearing proceeds.

1                    Illinois has long been recognized as one of  
2                    the leading livestock producing states in the nation.  
3                    Due to its access to abundant feed supplies, strong  
4                    markets and a well developed infrastructure, the Illinois  
5                    livestock industry has been a major contributor to the  
6                    state's overall economy. Livestock production accounts  
7                    for a sizable portion of the state's total gross  
8                    agricultural economy, and several types of livestock  
9                    species are produced in the state.

10                    The livestock industry is undergoing major  
11                    changes in structure, due to economic and marketing  
12                    forces, which are not unique to Illinois. As a result,  
13                    it has become common for many operations to expand,  
14                    specialize and invest in capital intensive production  
15                    units in recent years. The livestock industry has been  
16                    faced with challenges regarding market structure, access  
17                    to capital, a limited supply of trained employees and  
18                    increased regulations. In many cases, in Illinois as  
19                    well as other states, traditional and long established  
20                    livestock producers have chosen to leave the industry  
21                    rather to address the challenges I just listed.

22                    In an effort to strengthen the industry and  
23                    position Illinois to be a continuing leader in livestock  
24                    production, Governor Edgar convened the Livestock

1 Industry Task Force in July of 1995. The task force has  
2 addressed a wide range of topics focusing on areas of  
3 economic development, marketing technology transfer and  
4 environmental concerns regarding livestock production.  
5 Its recommendations have dealt with a number of issues,  
6 including concerns addressed at today's hearing.

7           These recommendations were taken into  
8 consideration by the legislative sponsors of the bills,  
9 which eventually became the Livestock Management  
10 Facilities Act. This is intended to be preventive in  
11 nature, since Illinois currently has statutes in place to  
12 deal with situations once pollution has occurred. The  
13 act sets in place regulations providing for the proper  
14 siting, construction, operation and management of  
15 livestock management facilities and associated waste  
16 handling structures. It is the intent, and quoting from  
17 the act, "To maintain an economically viable livestock  
18 industry in the state of Illinois while protecting the  
19 environment for the benefit of both the livestock  
20 producer and persons who live in the vicinity of the  
21 livestock production facility."

22           Section 55 of the act established a Livestock  
23 Management Facilities Advisory Committee made up of the  
24 directors of the Department of Agriculture, Natural

1 Resources, Public Health and the Illinois Environmental  
2 Protection Agency or their designees. I was designated  
3 by Director Doyle to serve as the chair of the committee.  
4 The members of the committee were charged to review,  
5 evaluate and make recommendations to the Department of  
6 Agriculture for rules necessary for implementation of the  
7 Livestock Management Facilities Act.

8 The committee met five times during the  
9 Summer and Fall of 1996 to review, evaluate and recommend  
10 amendments to various draft proposals developed by the  
11 department. The departments and agency represented on  
12 the committee provided a vast amount of professional  
13 knowledge and experience on a broad spectrum of topics  
14 pertinent to this issue. The department recognizes them  
15 for their efforts and appreciates their recommendations  
16 and input throughout the rule proposal that they have put  
17 in this process. The committee considered several  
18 sources of information, such as technical papers,  
19 published design standards, pertinent information from  
20 other states and information provided by industry and  
21 private sources as it made recommendations to the  
22 department regarding rule proposal.

23 In the Fall of 1996, as the advisory  
24 committee was meeting to develop the proposed rules,

1 concerns were raised to the general assembly regarding  
2 the absence of regulations, since the permanent rules  
3 have not been adopted. As a result, our department  
4 developed and proposed to the board an emergency rule  
5 pertaining to portions of the Livestock Management  
6 Facilities Act, namely lagoon registration, livestock  
7 facility siting, waste lagoon design criteria, waste  
8 management plans and certified livestock manager training  
9 and certification. The board adopted these emergency  
10 rules on October 31st, 1996. These rules are currently  
11 in place until such time as the board adopts the  
12 permanent rules.

13 I want to briefly summarize the rules which  
14 we have proposed to the board. Subpart A sets forth the  
15 applicability, severability, definitions and  
16 incorporations by reference for the rule proposal. This  
17 subpart follows concepts developed and include in the  
18 emergency rules adopted by the board under Docket R97-14.  
19 All but six terms defined within the section have been  
20 taken directly from the Livestock Management Facilities  
21 Act. Definitions proposed in the rules will further  
22 clarify concepts necessary for the enforcement of the  
23 regulations. An important issue relative to the timing  
24 of the application of setbacks needs clarification, and

1 the department respectfully requests that the board  
2 consider a further clarification of this important  
3 matter.

4 Subpart B of the proposal is organized into  
5 eight major sections and outlines the approach required  
6 of owners and operators of new or modified livestock  
7 waste lagoons for the registration, design, construction,  
8 closure and ownership transfer of such facilities. The  
9 proposal closely follows the emergency rules adopted by  
10 the board. This subpart takes into consideration site  
11 specific investigation, which is to be performed by the  
12 owner prior to registration and construction. Design  
13 criteria is based upon recognized design parameters  
14 established by either the American Society of  
15 Agricultural Engineers or the United States Department of  
16 Agriculture Natural Resource Conservation Service. This  
17 subpart establishes criteria for lagoon berms, monitoring  
18 wells, liners, lagoon closure and ownership transfers.

19 Subpart C deals with waste management plans.  
20 The application of livestock waste to the land is one of  
21 the oldest forms of recycling, and livestock waste has  
22 been used for generations to supply nutrients for growing  
23 crops. When properly applied, livestock waste can be a  
24 valuable resource; however, improper application can have

1 a negative impact on surface and ground water, as well as  
2 detrimental effects to the soil. Subpart C outlines the  
3 factors to be considered by a livestock producer when  
4 preparing a waste management plan specific to their  
5 operation. Many livestock producers in Illinois have had  
6 waste management plans prior to the development of the  
7 Livestock Management Facilities Act in an effort to  
8 provide sound stewardship of soil resources while using  
9 animal manure as a valuable agronomic resource. The  
10 Illinois Department of Agriculture intends to further  
11 detail the criteria to be used by a livestock producer  
12 when developing their waste management plan. When  
13 completed, this subpart will outline the information  
14 necessary to complete a waste management plan by  
15 establishing criteria for crop nutrient values, crop  
16 yields, nitrogen availability and proper disposal methods  
17 for livestock waste.

18 Subpart D provides details for the  
19 establishment of certified livestock management program  
20 intended to enhance the management skills of the  
21 livestock industry in critical areas such as  
22 environmental awareness, safety concerns, odor control  
23 techniques and technology, and the development of manure  
24 management plans.



1                   Subpart E of the proposed rules deals with  
2 penalties associated with violations of three areas of  
3 the act, namely lagoon registration and certification,  
4 certified livestock manager status and waste management  
5 plans. This subpart is primarily devoted to cease and  
6 desist orders listed as penalties within the act.

7                   Subpart F deals with financial responsibility  
8 and relates to section 17 of the Livestock Management  
9 Facilities Act. The intent of this section to ensure  
10 that in the event of a closure of a lagoon associated  
11 with a livestock management facility, the cost of that  
12 closure shall be borne by the owner of the lagoon versus  
13 a unit of local government. Section 17 of the Livestock  
14 Management Facilities Act outlines surety instruments  
15 which may be used to ensure financial responsibility.  
16 With the concurrence of the Pollution Control Board, the  
17 Illinois Department of Agriculture intends to adopt rules  
18 and procedures in a separate rule making process pursuant  
19 to the Illinois Administrative Procedures Act.

20                   Subpart G deals with setback distances, which  
21 are intended to protect air quality and to control odors  
22 which result from livestock production, but may be  
23 offensive to neighbors of those individual operations.  
24 It's very likely that any livestock operation, regardless

1 of size, will generate some level of odor by the very  
2 nature of the operation. Many factors contribute to the  
3 level of odor resulting from a livestock operation. The  
4 intent of establishing setback distances is to provide  
5 for a dilution effect, which will lessen odors coming  
6 from a livestock operation before they reach surrounding  
7 persons or homes.

8 In summary, clearly the issues which we face  
9 are complex, have far reaching impacts and are not easy  
10 to resolve. As discussions have been held at several  
11 locations around the state over the last year and a half,  
12 two main themes have emerged regarding livestock  
13 production in the state of Illinois.

14 First, is one of providing protection for the  
15 environment and natural resources of our state. This  
16 concern is not unique to Illinois, and other states have  
17 dealt with the same issues in a variety of ways. The  
18 rules which we have proposed, will serve to reinforce the  
19 preventive nature of the Livestock Management Facilities  
20 Act as intended by the Illinois General Assembly. The  
21 proposed rules take into account the most current design  
22 standards and criteria, scientific information and  
23 production practices to ensure that the natural resources  
24 of Illinois are protected.

1                   Another theme has developed, which relates to  
2                   the social and economic changes occurring within the  
3                   livestock industry. Much has been said about protecting  
4                   the family farm and restricting the size of mega-farms as  
5                   they are being considered in Illinois. The rules which  
6                   we are proposing to the Pollution Control Board, do not  
7                   address these social and economic issues, but rather  
8                   provide for the protection of our natural resources.  
9                   However, there are many producers and industry experts  
10                  who would warn that the increased cost of regulations may  
11                  actually lead to an acceleration to small to mid sized  
12                  livestock operations leaving the industry. As a result,  
13                  the Illinois Department of Agriculture recognizes that  
14                  the rules to be adopted need to be fair in their  
15                  approach, economically reasonable in their implementation  
16                  and based on sound, scientific information.

17

18                   MS. LOZUK-LAWLESS: Thank you, Mr. Boruff.  
19                  Mr. Warrington, would you like to continue?

20

21                   MR. WARRINGTON: Good morning. My name is  
22                  Rich Warrington, I'm an attorney with the Illinois  
23                  Environmental Protection Agency. On behalf of our  
24                  director, Laurie Davidly and Chief Jim Park, we would

1           like to welcome you here and thank you for your interest  
2           in coming out today. I will be summarizing the testimony  
3           that Jim Park gave at the hearing in Jacksonville,  
4           Illinois on January 14th. Copies of his testimony are  
5           available on the side table by the door.

6                         The Illinois EPA supports the adoption of  
7           R97-15. The addition of operator certification and the  
8           mandate for livestock waste management plans for the  
9           largest of these facilities is a positive step to  
10          establishing consistent and responsible operation of  
11          livestock waste handling facilities in the state. We  
12          endorse and encourage the training and educational  
13          programs set forth in these rules, as a meaningful  
14          approach in making the agricultural community aware of  
15          the responsibilities and beneficial aspects of sound  
16          livestock waste management. This program, when fully  
17          developed, promises to allow for the communication and  
18          the evaluation of inch innovative technology, as it  
19          effects the development of the operators waste management  
20          plans. The expansion of the setback limits, as mandated  
21          under the Livestock Management Facilities Act, is also a  
22          necessary step in addressing the potential detrimental  
23          aspects of large livestock facilities.

24                         We would like to recommend three additional

1 provisions in the permanent rules to be adopted by the  
2 Illinois Pollution Control Board.

3 First, is that soil boring requirements are  
4 satisfactory for the vast majority of sites in Illinois,  
5 as prescribed under 35 Illinois Administrative Code  
6 506.202-B. However, the Illinois Department of  
7 Agriculture needs adequate flexibility to require  
8 additional borings in the case of disturbed or mined land  
9 that may have altered hydrology and soil conditions, or  
10 routes to ground water via abandoned shafts. In these  
11 circumstances, a single boring for a large four to six  
12 acre lagoon would be insufficient.

13 Secondly, we recommend a prohibition on the  
14 use of outlet piping through the lagoon berm. Section  
15 4.6.2 of the American Society of Agricultural Engineering  
16 standards states that an overflow device with a minimum  
17 capacity of 1.5 times the peak daily inflow may be  
18 installed at the lagoon surface level only if the  
19 overflow is to be contained in another lagoon cell or  
20 other treatment facility. Outlet devices should be  
21 installed in a way that allows effluent to be taken at a  
22 level 150 to 450 millimeters, six to 18 inches below the  
23 surface. This seems to suggest that a subsurface outlet  
24 may be approved. The Illinois EPA is aware of a recent

1 example in North Carolina where lagoon slope failure was  
2 related to, and possibly directly caused by, an outlet  
3 pipe design of this type. The National Resource  
4 Conservation Service recently changed the North Carolina  
5 guidance document, so that if any pipes are to placed  
6 through the embankment, the location and method of  
7 installation shall be approved by the designer of the  
8 embankment. The installation shall be certified by the  
9 inspector. It should be noted that this guidance  
10 document, although designated as a Natural Resource  
11 Conservation Service document, was developed specifically  
12 for and applies only to North Carolina. The National  
13 Resource Conservation Service reference document included  
14 in this proposal, does not contain this guideline.  
15 Therefore, the Illinois EPA recommends an addition to  
16 R97-15 that either: (a) prohibits the use of through the  
17 berm outlet piping, unless the piping discharges to  
18 another lagoon, or (b) requires the Illinois Department  
19 of Agriculture's specific approval, as called for in the  
20 North Carolina example.

21 And finally, we recommended a requirement for  
22 emergency spillway. The National Resource Conservation  
23 Service document very clearly specifies under what  
24 condition this is to be present: Lagoons having a

1 maximum design liquid level of three foot or more above  
2 nature ground, shall be provided with an emergency  
3 spillway or an overflow pipe to prevent overtopping.

4 Since this is not addressed in the American Society of  
5 Agricultural Engineer's document, a potential point of  
6 exists that could be corrected by adding a provision to  
7 R97-15 for the design to include an emergency spillway.

8 In conclusion, the Illinois EPA, acting in  
9 its role through the Livestock Management Facilities Act  
10 Advisory Committee, has evaluated and made  
11 recommendations on a wide variety of issues presented on  
12 the subject of livestock waste management in the course  
13 of our deliberations. Those on this committee, the  
14 Department of Public Health, the Department of Natural  
15 Resources and in particular, the Department of  
16 Agriculture are to be commended for their efforts in  
17 drafting a well reasoned set of proposed rules for the  
18 Illinois PCB's consideration. R97-15 represents a strong  
19 step forward in the effective management and prevention  
20 of pollution from large livestock facilities in Illinois.  
21 We encourage the Illinois PCB to adopt R97-15 and include  
22 the above noted modifications. Thank you.

23

24 MS. LOZUK-LAWLESS: Thank you Mr. Warrington.

1 Doctor Marlin, would you like to continue?

2

3 MR. MARLIN: Good morning. My name is John  
4 Marlin, I work for the Illinois Department of Natural  
5 Resources and represent its director on the Livestock  
6 Management Facilities Advisory Committee. We've  
7 testified extensively, and copies of our similar  
8 testimony are available on the table near the door.

9 The Department of Natural Resources supports  
10 the livestock regulation proposal before the board today.  
11 We realize, however, that it's limited by the constraints  
12 of the Livestock Management Facilities Act. The  
13 department believes design standards stability and design  
14 hydraulic capacity are consistent with today's design  
15 standards and public health from lagoon embankment.  
16 Proposed lagoon design standards reasonable of aquifer  
17 resources. To be consistent with standard dignitary  
18 methods used in these type of facilities. Manager  
19 certification and training sections provide the  
20 Department of Agriculture an opportunity to address  
21 operations not necessarily covered by the rules.

22 Proposed findings, the definition of  
23 populated area, to make it clearer. That lands managed  
24 for conservation or recreational purposes, including 4H



1 camps, and boy scout camps and girl scout camps are  
2 considered populated areas, as long as they meet the 50  
3 persons per week requirement. The Department of Natural  
4 Resources suggested property boundaries of such places be  
5 used when measuring the appropriate setback from  
6 livestock facilities. Millions of people visit our parks  
7 annually for family picnics, camping out, horse back  
8 riding, hiking and other activities annually. It is our  
9 view that the level of odors occurring adjacent to many  
10 livestock facilities is incapable with such outdoor  
11 experiences.

12 The department appreciates the opportunity to  
13 appear today, and thank those who participated in this  
14 process.

15  
16 MS. LOZUK-LAWLESS: Thank you, Dr. Marlin.  
17 Mr. Mudgett?

18  
19 MR. MUDGETT: I'm with the Illinois  
20 Department of Public Health and representative on the  
21 Livestock Management Facilities advisory committee. We  
22 support the rules as proposed.

23 Our primary concern of the proposed rule,  
24 protection of ground water, which may serve as drinking

1 water wells and believe that the requirements in this  
2 regard adequate and reasonable.

3 We also endorse the remainder of the rules as  
4 being the most appropriate in keeping with both the  
5 letter and spirit of the Livestock Management Facilities  
6 Act.

7 I would like to add at this point, we agree  
8 with the language as subject by the Department of  
9 Agriculture, section 506.303 for ground water  
10 contamination, and in 506.303-B pertaining to  
11 contamination of livestock waste and saturated soils.  
12 These recommendations were included in the department's  
13 Jacksonville -- well, in the Department of Agriculture's  
14 testimony in Jacksonville, and actually recommended by  
15 the rules advisory committee and endorsed by the Illinois  
16 Department of Public Health.

17 I too have copies of my written testimony on  
18 the table near the door. We appreciate the opportunity  
19 to participate in the rule making. Thank you.

20  
21 MS. LOZUK-LAWLESS: Thank you, Mr. Mudgett.  
22 And thank you for all the agencies for their testimony.

23 Proceed and enter any exhibits that any of  
24 the agencies have that they would like to enter at this

1           time. First, begin with the Department of Agriculture,  
2           and move on to the Illinois Environmental Protection  
3           Agency and finally the Department of Natural Resources.

4  
5                       MR. BORUFF: Over the course of the last few  
6           years, there have been from time to time requests for  
7           additional information to the board, as well as some  
8           points of clarification that the board or others have  
9           requested that our department might consider as  
10          amendments to our proposed rules. I'm going to give you  
11          several documents in light of those amendments or point  
12          of clarification that were asked by board members or  
13          others.

14                      What I think we'll do, we have a rather large  
15          pile here, Mr. Goetsch and Frank will be handing these to  
16          you as we go through these.

17                      First exhibit I would offer to you, one is a  
18          letter attached to a bulletin. The letter is from our  
19          department to the Natural Resource Conservation Service,  
20          adding clarity to a difficult national situation, which  
21          arose on the definition of holding ponds versus lagoons.  
22          So in this exhibit is a letter from our department dated  
23          November 22nd to the state conservationist at NRCS. And  
24          then subsequently attached to that is their bulletin sent

1 to field staff across the state, which allows for them to  
2 make that modification in their definition. That would  
3 be the first exhibit to you.

4

5 MS. LOZUK-LAWLESS: I would like to show for  
6 the record, a letter dated November 22nd, attached to the  
7 bulletin IL 210-7-3, dated December 3rd, 1996, has been  
8 entered into the record as Exhibit Number 47.

9

10 MR. BORUFF: The next exhibit is a large  
11 number of documents here. The board requested, if  
12 possible, for your department to provide them with  
13 regulations and laws pertaining to livestock waste  
14 management in other states. And what we have entered is  
15 a composite of regulations taken from the states of  
16 Missouri, Iowa, Wisconsin, North Carolina, Kansas and  
17 Minnesota. And to our best knowledge, these are the  
18 current rules and regulations that pertain in these six  
19 states.

20 We had also -- I think in a little bit longer  
21 here, you'll be getting an exhibit from the Illinois EPA,  
22 and they have done a summary of these, so you need not go  
23 through each one of these documents. So this would be  
24 our next exhibit.

1 MS. LOZUK-LAWLESS: Let the record reflect  
2 the submission by the Department of Agriculture,  
3 documents from Missouri, Wisconsin, Iowa, Kansas and  
4 Minnesota and North Carolina. Is that the complete  
5 states?

6  
7 MR. BORUFF: Yes, six states.

8  
9 MS. LOZUK-LAWLESS: That has been marked as  
10 Exhibit Number 48, for the record.

11  
12 MR. BORUFF: Thank you. The next exhibit we  
13 would be offering to you, Illinois Department of  
14 Agriculture's report for the Illinois General Assembly  
15 relative to the section of the act dealing with financial  
16 responsibility. The act specified that our department  
17 was to report to the general assembly, and this, as it  
18 was introduced by the director, Becky Doyle, Director of  
19 Agriculture to the Illinois Senate and House of  
20 Representatives. That would be our next exhibit.

21  
22 MS. LOZUK-LAWLESS: Let the record reflect, a  
23 letter from dated February 5th, 1997, has been marked as  
24 Exhibit number 29 -- 49, excuse me.

1                   MR. BORUFF: The next exhibit that we would  
2 offer to you pertains to livestock waste management  
3 plans. There has been quite a large amount of discussion  
4 to how these plans would actually be developed by  
5 livestock producers, what one would look like and what  
6 they would include.

7                   What we did on paper, the Illinois Department  
8 of Agriculture went into the livestock business, and we  
9 now have the IDA Livestock Farm, which is a fictitious  
10 livestock farm, and we have gone through on paper  
11 managing this, our on size paper farm, and how we would  
12 develop the livestock waste management plan, taking into  
13 consideration what we have proposed within the rules.  
14 So that would be our next exhibit.

15  
16                   MS. LOZUK-LAWLESS: Let the record reflect  
17 that the Department of Agriculture sample waste  
18 management plan has been marked as Exhibit Number 50 and  
19 entered into the record.

20  
21                   MR. BORUFF: Thank you. The next series of  
22 documents which we would offer as exhibits pertain to the  
23 sample analysis and field application of livestock waste.  
24 There has been discussion and questions in earlier

1 testimony and hearings regarding this issue, so we made a  
2 search of several different states, and what we found  
3 primarily cooperative extension service of publications  
4 pertinent to this issue of waste management. That would  
5 be our next exhibit which was just handed to you.

6  
7 MS. LOZUK-LAWLESS: Let the record reflect  
8 that the Department of Agriculture's further submission  
9 of various co-op extension publications has been marked  
10 as Exhibit Number 51 and entered into the record.

11  
12 MR. BORUFF: The next exhibit refers to a  
13 clarification of the definition of the licensed  
14 professional geologist. At the request of the board, the  
15 department contacted the Illinois Department of  
16 Professional Regulation relative to the application of  
17 the term licensed professional geologist. The following  
18 definition, which is included in our exhibit is found --  
19 contained with the Illinois Professional geologist  
20 licensing act found at 225 ILCS 745/1. And on the  
21 exhibit, we have italicized language as taken from there.  
22 Based on that definition, the department respectfully  
23 suggests that the following be added to the evaluation or  
24 R97-15.

1                   Also, the department has attached a copy of  
2                   the professional geologist professional licensing act for  
3                   your consideration.

4  
5                   MS. LOZUK-LAWLESS: Let the record reflect,  
6                   definition of licensed professional geologist -- licensed  
7                   professional geologist, along with the department's  
8                   suggestion of additional language attached to the actual  
9                   professional geologist license act has been marked as  
10                  Exhibit Number 52 and entered into the record.

11  
12                  MR. BORUFF: The next exhibit would pertain  
13                  to the concept of continuing of setbacks after damage by  
14                  a natural occurrence. At an earlier hearing, the  
15                  Illinois Department of Agricultural responded to a  
16                  pre-filed question from an industry of coalition  
17                  representative. The issue dealt with livestock  
18                  facilities destroyed by natural occurrence would be  
19                  allowed to contain its original setback until such time  
20                  as its facility was rebuilt. We submit the following  
21                  language, and I'm going to provide comments of operations  
22                  at a facility reconstructed after partial or total  
23                  destruction, such as a tornado, fire, flood or earthquake  
24                  shall not be considered the location of a new livestock



1 facility or waste handling facility for setback purposes.  
2 Like a residence partially or totally destroyed, such as  
3 tornado, fire, flood or earthquake shall obtain its  
4 original setback no greater than two years for a said  
5 reconstruction of such residence.

6 In our original answer to this, we had not  
7 included and offered it as amendment for clarification.  
8 Also a question from a board member prompted our addition  
9 of the final sentence regarding the availability of a  
10 residence when constructed within a specific period of  
11 time to maintain the original setback.

12 The Illinois Department of Agriculture  
13 respectfully submits these as amendments to our proposed  
14 rules.

15  
16 MS. LOZUK-LAWLESS: Let the record reflect  
17 continuation of setbacks after damage by a natural  
18 occurrence, along with the department's invested language  
19 changes and addition has been marked as Exhibit Number  
20 53.

21  
22 MR. BORUFF: Our next exhibit would pertain  
23 to the concept of applying livestock waste to a grass  
24 waterway. The Mt. Vernon hearing didn't consider

1 language clarification to livestock waste through  
2 irrigation systems onto grass areas, which could be  
3 coincidental with waterways. The department respectfully  
4 submits the following language as to our rule of  
5 proposal. This would be changed to section 506.303,  
6 waste management plan contents, letter R, and amendment  
7 would read as follows: Provision that livestock waste  
8 will not be applied in waterways for the purposes of this  
9 part, a grass area serving as a waterway may receive  
10 livestock waste through an irrigation system, if there's  
11 no run off. The distance from applied livestock waste to  
12 surface water is greater than 200 feet. Distance from  
13 applied livestock waste to pot whole water supplies --  
14 excuse me, water supply wells is greater than 150 feet  
15 and precipitation not expected within 24 hours.

16  
17 MS. LOZUK-LAWLESS: Thank you. Let the  
18 record reflect grass waterway proposal regarding section  
19 506.303-R has been marked as Exhibit Number 54 and  
20 entered into the record.

21  
22 MR. BORUFF: Thank you. Next exhibit we  
23 would enter, introduction of setback land directly from  
24 the Livestock Management Facilities Act into proposed

1 permanent rules. At previous hearing, discussion held  
2 benefit of including language, including to setbacks as  
3 it appears within the Livestock Facilities Act, and  
4 include that into a portion of the permanent rules.  
5 After reflection upon this discussion, the Illinois  
6 Department of Agriculture would respectfully propose to  
7 Illinois Pollution Control Board that section 35 of the  
8 Livestock Management Facilities Act, entitled Setbacks  
9 For Livestock Management and Livestock Management  
10 Facilities be include in the permanent rule at subpart G,  
11 entitled setbacks, section 506.701. With the inclusion  
12 of this language, it will become necessary to remove  
13 section 506.702-A and B in order to avoid redundancy.  
14 Section 506.702-C should be retained in the letter F of  
15 the new section as proposed.

16  
17 MS. LOZUK-LAWLESS: Let the record reflect  
18 introduction of said language from the Livestock  
19 Management Facilities Act into the proposed permanent  
20 rules, has been marked as Exhibit Number 55 and entered  
21 into the record.

22  
23 MR. BORUFF: Next exhibit, based on the  
24 concept of nutrient management plans based upon nitrogen.

1           At an earlier hearing, discussion of the merits of waste  
2           management based on nitrogen content versus phosphorous  
3           content took place. Board member Gadsore comments at a  
4           later date regarding this issue. Later during that same  
5           hearing, testimony was provided to the board relative to  
6           the issue of nitrogen versus waste management plans.  
7           Illinois Department of Agriculture refer to publications  
8           from the University of Illinois Cooperative Extension  
9           Service provided as testimony and exhibits at earlier  
10          hearings. Livestock Management Facilities Act states  
11          manure, based on nitrogen, and previous testimony and  
12          exhibits, Illinois Department of Agriculture has chosen  
13          not to provide additional testimony relative to this  
14          issue at this time.

15

16                           MS. LOZUK-LAWLESS: Thank you, Mr. Boruff.  
17           Let the nutrient management plans, based upon nitrogen,  
18           has been marked as Exhibit Number 56 and entered into the  
19           record.

20

21                           MR. BORUFF: Our next exhibit, held relative  
22           lagoon should be emergency spillways and Illinois  
23           Department of Agriculture's spillway position on that  
24           issue. Illinois Environmental Protection Agency has

1 presented as part of their pre-filed testimony  
2 requirement for emergency spillway be added to the  
3 proposal. NRCS reference document include language  
4 regarding emergency spillways, and American Society of  
5 Agricultural Engineering reference document does not.  
6 The agency suggests that a potential point of confusion  
7 exists that could be corrected by the R97-15 for the  
8 design to include an emergency spillway.

9 At Mt. Vernon, hearing agency counsel  
10 suggested it was the position of IEPA emergency spillway  
11 recommendation was intended to protect the lagoon from  
12 general overtopping and possible berm failure should the  
13 lagoon be exhausted and a large precipitation occur.

14 Our department understands the agency's  
15 position, but does not believe an emergency spillway  
16 should be to every lagoon. Requirement for contain of 67  
17 inches of rain fall involve in addition to eight minimum  
18 design volume, livestock waste volume and sludge  
19 accumulation volume.

20 35 AOC 506.204 letter G, number four, a  
21 freeboard is required of either 12 inches or 24 inches,  
22 depending on the maximum design capacity of the livestock  
23 facility. Current proposal liquid level board or star  
24 gauge within the entire to serve as a visual remainder of

1 the start pumping and pumping elevations and assist in  
2 running off and freeboard volumes. Take it together,  
3 freeboard and run off volumes should provide at least 18  
4 to 30 inches of the lagoon volume, depending on facility  
5 size, to serve as emergency support of unusual weather.  
6 This assumes the lagoon has been filled to significant  
7 capacity at the onset of the unusual weather pattern  
8 which should not normally be the case. Design criteria  
9 contained in the proposal appropriate level to lagoon.

10 Further, the department suggests addition of  
11 spillway reduction freeboard volume if overall volume is  
12 not increased or substantial increased if the overall  
13 height of the berms is increased. This would also send  
14 the wrong message to producers by applying discharge from  
15 this zero discharge facility should be appropriate. Thus  
16 department suggests if board deems there to be an  
17 adequate conflict in the design standards to require  
18 clarification of the rule, a provision be added -- a  
19 provision be added to 35 AOC 506.24-G which makes  
20 inclusion of the design of the lagoon voluntary and  
21 requires spillway contained in 35 AOC 506.204-G-4.

22

23 MS. LOZUK-LAWLESS: Thank you, Mr. Boruff.

24 Let the record reflect, Department of Agriculture,

1 department emergency spillway position has been marked  
2 and entered into the record as Exhibit Number 57.

3  
4 MR. BORUFF: Our next exhibit refers to  
5 interior berm slope and change in our proposal in the  
6 rules. The proposed design standard relative to berm  
7 slope found at 35 AOC 506.204-G-2, and reads as follows:  
8 Any livestock waste lagoon subject to the provision of  
9 this shall meet or exceed the following. Number one,  
10 minimal berm shall be 78 feet. Number two, interior and  
11 exterior wall shall have side slopes not steeper than  
12 three to one ratio and vegetative cover. Any berm areas  
13 and maintain eliminate erosion or other berm  
14 deterioration.

15 Remarks provided at the Jacksonville hearing  
16 provide the following: Department believes somewhat more  
17 restricted -- restrict overall size of the lagoons and  
18 importantly, all portion of the lagoons are mowing and  
19 other appropriate maintenance. Enhance facility managers  
20 to continually monitor the condition of lagoon berms  
21 properly. Maintain the structures and thus prevent  
22 possible berm failures.

23 At that same hearing, professional evaluation  
24 at the University of Illinois Agriculture Engineering

1 Department, suggested that that requirement be modified  
2 for steeper berm slopes on the submerged portion of the  
3 lagoon berm. Our department has considered department  
4 function, suggested and believes, that some refinement to  
5 the proposal to meet both goals. We believe interior  
6 berm slope will greatly reduce the lagoon while not  
7 backing of lagoon berms only below the elevation where  
8 liquids would be present during most of the year and  
9 proper maintenance to exposed berm surface. This  
10 elevation would coincide with the start pumping elevation  
11 as I mentioned a moment ago. The department support of  
12 changing the proposal 35 AOC 506.204-G as follows with  
13 our proposed change: Any livestock weights subject to  
14 the provisions of this park shall meet or exceed the  
15 following: Number one, the minimum berm top shall be  
16 eight feet. And number two, with the new language  
17 exterior and normally exposed interior above the liquid  
18 level elevation corresponding to the elevation of the  
19 sludge volumes and minimum design volumes. Earth and  
20 wall, three to one ratio horizontal to vertical and  
21 vegetative cover on any exposed berm area to maintain or  
22 eliminate erosion and adding new language. Below the  
23 liquid level of elevation, corresponding to the elevation  
24 of sludge volumes and design volumes may have side volume



1 two to one ratio horizontal to vertical, and shall be  
2 maintained to eliminate berm deterioration. And that  
3 would be the end of that exhibit.

4

5 MS. LOZUK-LAWLESS: Thank you, Mr. Boruff.  
6 Let the record reflect, interior berm slope proposal  
7 regarding 506.204-G, marked as Exhibit Number 58 and  
8 entered into the record.

9

10 MR. BORUFF: Livestock waste sampling.  
11 Testimony in question from previous hearings before the  
12 board, has raised a concern dealing with the timing and  
13 practicality of livestock waste sampling for determining  
14 by laboratory analysis. The proposed rule requires  
15 livestock waste to be sampled prior to the application  
16 for that year, and the nutrient content results be  
17 incorporated into the waste management plan prior to that  
18 year's application. This approach was taken to  
19 incorporate the most up-to-date information into the plan  
20 in the departments pre-filed testimony reference was  
21 played to potential problems, such as obtaining a  
22 representative sample of livestock waste.

23 Other problems discussed, including odor  
24 generated vegetation was used in the process and

1 pre-filed testimony. Another option during the  
2 application process performed on that representative  
3 sample and using a nutrient for undated during the next  
4 application process. Cooperative have indicated nutrient  
5 content of the waste may not change dramatically from  
6 year to year in planning other changes that have not  
7 occurred. According to planning, using actual lab  
8 analysis results or published of livestock waste. This  
9 is already allowed in 35 Illinois Administrative Code  
10 506.305-A. Samples for analysis would be obtained during  
11 waste application, and results would be used for the next  
12 application process. The department would support  
13 changes to our proposal as outlined in the exhibit, which  
14 has been given to you.

15

16 MS. LOZUK-LAWLESS: Thank you, Mr. Boruff.  
17 Let the record reflect, livestock waste management  
18 proposal is marked as Exhibit 59.

19

20 And let members of the public know, the  
21 majority of these proposed languages Mr. Boruff has read  
22 to you, so you're seeing primarily what I'm seeing up  
23 here today.

23

24

Is there anything else the Department of  
Agriculture wants to submit at this time?

1 MR. BORUFF: That's all I have.

2

3 MS. MANNING: Have the others had an  
4 opportunity to review --

5

6 MR. WARRINGTON: We have considered those  
7 matters and we have some witnesses to address those later  
8 in the day, if you wish.

9 As Mr. Boruff indicated, we have a summary of  
10 the regulations of other states, condensing that rather  
11 large thing into a few pages, mainly by shrinking the  
12 type.

13 The remaining issues go to the question of  
14 the enforcement history of the existing board and the  
15 duration of the term animal unit. And lastly, the  
16 background and some of the equipment program that the  
17 board asked about. In order to introduce these exhibits,  
18 I'm going to ask for the assistance of A. G. Taylor,  
19 adviser for the Illinois Department of Agriculture  
20 Agency.

21

22 (Witness is sworn in.)

23

24 MR. WARRINGTON: We have two exhibits for the

1 question. One is a listing of cases that had been  
2 decided by the court or the Pollution Control Board  
3 regarding either water pollution incidents or odor  
4 pollution incidents since 1973.

5 And another one that A. G. will be talking  
6 about directly is a ten year summary of statistics about  
7 enforcement activities by the Environmental Protection  
8 Agency.

9  
10 MS. LOZUK-LAWLESS: I would like to enter  
11 into the record the Illinois EPA of various states'  
12 requirements of livestock waste facilities, which has  
13 been marked as Exhibit Number 60.

14  
15 MR. WARRINGTON: Could you give a brief  
16 summary of the ten year summary?

17  
18 MR. TAYLOR: I'll try to summaries what's  
19 here, and you can try to digest the tables and the other  
20 data, so that when you go home you can use it for good  
21 bedtime reading, as if you don't have enough already to  
22 begin with.

23 I do want to qualify this data and explain  
24 how we do gather the data and why it's put together. In

1           September '78, the Pollution Control Board adopted what  
2           we consider the present day livestock waste regulations,  
3           and they were calling for livestock facilities to be in  
4           compliance of June 30th of 1979. At that time, we began  
5           hiring special field staff to administer livestock waste  
6           management program, and we brought five people on board  
7           and assigned them to some of our local offices throughout  
8           the state.

9                               Now since that time, we have had periods  
10           where some of the positions have been vacant, and also  
11           these individuals have become involved in other programs  
12           or in other areas that we have to deal with, such as the  
13           AG chemical problems, spills and cleanup problems that we  
14           have with AG chemical facilities. So 100 percent of  
15           their time is not necessarily spent on livestock waste  
16           and management, but we still have at the present, five  
17           people in the regional offices. These individuals  
18           respond primarily to complaints; although, from time to  
19           time they do observations and follow up on those where  
20           they suspect a falsity maybe out of compliance. The  
21           majority though are based upon citizens' complaints.  
22           They try to work cooperatively with the producers,  
23           identify for the producer what the problem may be. Give  
24           the producer reasonable amount of time to come into

1 compliance. If that doesn't work, we may follow up with  
2 a letter explaining what the potential violations are and  
3 ask for response to the letter. If that does not work,  
4 we may bring them in for pre-enforcement conference, and  
5 at that point there's either agreement or resolution to  
6 the problem, or we have the option of referring the case  
7 to the Attorney General's Office.

8 Now records of our field investigations have  
9 been kept since 1979. Initially, these were done by  
10 hand. I actually went through field memos that the  
11 livestock field staff provided to me. We next developed  
12 an area for a survey sheet for each of the facilities,  
13 they submitted those to me and I would review them and  
14 compile the data.

15 And then for 1985, we developed a computer  
16 program and they were able to fill out the data for each  
17 facility that they had visited during any given year, and  
18 then all that data is combined into one report. And the  
19 tables that we have presented here are 10 years worth of  
20 using that data that's compiled by our computer program.

21 Just a little bit of information on here.  
22 Oh, the basic reason that we compile this data is to get  
23 a good idea of what our workload is with livestock  
24 facilities and identify the most prevalent problems. By

1           doing so, we can go to extension engineers, the  
2           university or we can go to Natural Resource Conservation  
3           Service and try to find resolution to those type of  
4           problems and get the word out through the extension  
5           programs and other contacts, so that farmers have the  
6           opportunity to prevent these problems from occurring.  
7           That is a primary purpose of this data.

8                         To go over this just a little bit, the total  
9           number of livestock operations that we have visited, and  
10          I have to do it from 1979 through '94, is 2,639. The  
11          data aren't compiled in a way that we can really say for  
12          that specific ten year period exactly how many facilities  
13          we had gone to. If I were giving an estimate, I would  
14          say that 1400 facilities between 1985 and 1994 would be a  
15          legitimate estimate. The average number of operations  
16          that we investigated a year, 222. The average field  
17          surveys 333. So we go to some facilities more than once  
18          in a given year. Average number of livestock operations  
19          investigated each year that had not been contacted in  
20          previous years; in other words, these are new contacts  
21          for us, 108. The yearly average number of livestock  
22          operations investigated for the first time due to a  
23          citizen's complaint was 87.

24                         All right. Regarding odor investigation, the

1 average number of odor complaints was 74 per year. The  
2 percentage of those, where there's an apparent odor or  
3 potential violations of the act or the Pollution Control  
4 Board's regulation is 87 percent. The percent that we  
5 attribute to land application are 42 percent, and the  
6 percent due to stationary sources, such as a lagoon or  
7 feed lot is 48 percent.

8 Water pollution, average number of water  
9 pollution complaints investigated per year are 94. The  
10 percentage of water pollution complaint investigations  
11 conducted where apparent or potential violations occur  
12 are 88 percent. The percentage water pollution problems  
13 related to feed lot run off, 37 percent. Those  
14 attributable discharges and overflows from pits or  
15 lagoons is 28 percent. In regard to compliance and  
16 enforcement, we note that 67 percent of the facilities we  
17 feel have had an apparent or potential violation of the  
18 act or board's regulations. Now this doesn't calculate  
19 if you go one on one, but we have to note a number of the  
20 facilities we go to have complaints alleged against them  
21 both in regard to odor and water pollution. So these  
22 numbers are intermixed. And for a person who doesn't  
23 know how they're put together, they're somewhat difficult  
24 to interpret. And a hazard that I want to caution you



1           against is not to misinterpret or over interpret what is  
2           here.

3                               Now we've had an example of that, and let me  
4           elaborate a little bit. Jim Frank, who gave testimony  
5           last Friday had one of these tables. It has been given  
6           to some people upon request in the past, and he was using  
7           it to analyze problems related to field application,  
8           water pollution problems related to field application of  
9           livestock waste. And he noted that there was 155  
10          problems that we have identified during this ten year  
11          period. Subsequently, he attempted to extrapolate this  
12          to the entire universe of livestock facilities in  
13          Illinois, and he noted on the average there was, during  
14          those years, 47,140 facilities, and he noted that we had  
15          155 problems related to field application. You could  
16          divide that by 10 and that would be 15.5 problems per  
17          year. So he divided the 15.5 by 47,100 facilities in  
18          these given years. That's .003 percent of the facilities  
19          had problems related to livestock, and water pollution  
20          problems related to livestock waste application.

21                              On the other hand, another person could pick  
22          up this information and knowing my estimate, that during  
23          this period we probably went to 1400 facilities and we  
24          had 155 problems related to land application of livestock

1 waste, to come up with a fact that 12 percent of the  
2 facilities could extrapolate that to the whole 12 percent  
3 of the facilities in the state have problems related to  
4 land application of livestock waste. Now in reality,  
5 neither one of these analyses would be correct or  
6 accurate. I just give that example, not to be overly  
7 critical of Mr. Frank, but just to caution people not to  
8 over interpret what this information provides.

9

10 MR. WARRINGTON: Would you want to entertain  
11 questions now?

12

13 MS. LOZUK-LAWLESS: We'll wait till later.

14 Second group of exhibits, Mr. Warrington, I  
15 will actually enter into record as Exhibit Number 62, the  
16 IEPA livestock waste program data ten year summary.

17 And while you're addressing the odor related  
18 cases, we'll mark that as Exhibit Number 61 into the  
19 record.

20

21 MR. WARRINGTON: The second question we were  
22 asked of the origin and derivation of the term animal  
23 unit as it's used in board regulation. We have Mr.  
24 Taylor to go back to the original federal registers that

1 discuss that, and he has copies of those for the board,  
2 but for the record, federal registers of May 3rd 1973,  
3 July 5th, 1973, November 28th, 1975 and March 18th, 1976.  
4 And Mr. Taylor has a summary of what these federal  
5 registers have discussed relative to the meaning of that  
6 term, if you would like to use those as an exhibit.

7 A. G. could you give us a summary, a very  
8 short summary?

9  
10 MR. TAYLOR: I will try to. Why on earth  
11 does anyone want to do any research on animal units in  
12 preparing a paper for an upcoming conference and trying  
13 to explain some myths and misconception that we've  
14 encountered over the past couple of years, and one of the  
15 terms for which there's grave misconception is the term  
16 animal unit, so I thought I would go back and just find  
17 out how it came about, at least in terms of the  
18 Environmental Protection Agency and their NPDS program  
19 and the regulations that we have here in Illinois.

20 And I found that the definition of animal  
21 unit first appeared in the federal register in March  
22 18th, 1976, which concerned rules and regulations for  
23 state program elements necessary for participation in the  
24 National Pollutant Discharge System, and here is where

1 the EPA first defined the term animal unit. You'll see  
2 the definition written in the handout. This definition  
3 was developed from numbers put forth in the definition of  
4 another term called concentrated animal feeding  
5 operation. And basically what they did was developed  
6 ratios of these numbers for the purpose of -- well,  
7 defining concentrated feeding animal, they actually  
8 designated how many animals of the different species  
9 would have to be on site for it to be defined as a  
10 concentrated animal feeding operation. But they also had  
11 other situations where they may have been more than one  
12 species and how could they add the two. What they did  
13 come up with these multiplier ratios, comparing the  
14 numbers that they had assigned for swine and the other  
15 species to 1000 slaughter and feeder cattle. And USEPA  
16 had only come up with four of these multiplier ratios,  
17 and those were for slaughter steers and heifers as one,  
18 because 1000 -- over 1000. Mature dairy cattle was 1.4.  
19 Swine, over 55 points was .4. And sheep was .1. Now we  
20 note that the Illinois regulations have additional ones,  
21 and this is explained in the rationale for this or the  
22 reasoning for this was explained by Dr. Sashell in his  
23 opinion and order from the R76 R15 procedures dated June  
24 22nd, 1978. That definition of animal unit is quite

1 similar to that promulgated by the USEPA. His more  
2 complete agency proposed to add multiplier numbers for  
3 young dairy stock weighing under 55 pounds, turkeys,  
4 laying hens or broilers and ducks. During the course of  
5 the term breeder cows was added to slaughter and feeder  
6 category and -- was added to the sheep category. Ease of  
7 understanding in computer animal units was one thing I  
8 explained is how USDA came up with the numbers of  
9 concentrated animal feeding operations, and that I think  
10 is the heart of the issue. It had nothing to do with how  
11 much waste the livestock produced. It had nothing to do  
12 with the live weight of the livestock. It had to do with  
13 the projectional number of permit applications that they  
14 would receive. What they did was to gather information  
15 from USDA and from the states, and determine how many  
16 feed lots there were of what size, and then determine the  
17 cut off point where they felt they would receive a  
18 manageable number of permit applications.

19 Now as I just mentioned, in the Illinois  
20 regulations we have additional multiplier ratios in the  
21 definition of animal unit. Some of those, it appears as  
22 if we use the same procedure as USEPA and just comparing  
23 the numbers that they had assigned for some other species  
24 to the 1000 slaughter cattle. However, for the swine

1 under 55 pounds and the young dairy stock, the history or  
2 the records in the R76-15 proceedings and also going back  
3 in the R72-9 proceedings, suggest that they may have used  
4 live animal weight as a means of doing that.

5 Initially, in the first proposal put forth by  
6 the Pollution Control Board, there was a definition  
7 called the annual animal unit, and that was 1000 pounds  
8 of live weight on the premises per year. Now one could  
9 realistically assume that the swine under 55 pounds, the  
10 average weight of those would be 30 pounds. And we could  
11 realistically assume that the average live weight of  
12 young dairy stock was around 600 pounds. And if we use  
13 1000 pounds as a common dominator, we come up with .03 as  
14 a multiplier ratio, and .6 as a multiple ratio for the  
15 dairy.

16 Now these records are not clear in regard to  
17 specifically saying that's the way they developed those  
18 latter two numbers, but they certainly do support the  
19 assumption that such logic was used.

20 One thing that is important here to note,  
21 however, that it is evident that the state has exercised  
22 its authority to apply multiplier numbers, that was not  
23 found in the federal regulations. But also very  
24 important and necessary to maintain consistency with the

1 numbers that were promulgated by USEPA, so not to  
2 jeopardize the state's authority to implement feeding  
3 programs in Illinois.

4

5 MR. WARRINGTON: Thank you, Mr. Taylor.

6 Last question that the board would like to  
7 respond to description of the EQIP program.

8

9 MS. LOZUK-LAWLESS: Let me go ahead and admit  
10 these two exhibits into the record. That would be the  
11 federal register as Exhibit Number 63 and entered into  
12 the record. As well as the term animal unit marked as  
13 Exhibit Number 64, submitted by the Illinois  
14 Environmental Protection Agency. Thank you, Mr.  
15 Warrington.

16 MR. WARRINGTON: We were asked the question  
17 about what this federal program was about. Mr. Taylor  
18 started getting some phone calls, and he has located a  
19 representative that is more knowledgeable about it than  
20 any of us. So with the board's indulgence, we would like  
21 to have Mr. Taylor introduce him and have him sworn in.

22

23 MR. TAYLOR: The question arose in the Dekalb  
24 hearing regarding the EQIP program and what we may see in

1 the future with regard to the livestock facilities, and I  
2 think the board requested this information, and I  
3 suggested we get the most authoritative person in the  
4 state to provide that, and that is Gary Kabillski, who is  
5 the Deputy State Conservationist for the Natural Resource  
6 Conservation Service here in Illinois. Gary has informed  
7 me that he is prevented from testifying for or against  
8 the proposed regulations, so his statement basically will  
9 be just providing us updated information on the EQIP  
10 program or Environmental Quality Incentive Program.

11

12 MS. LOZUK-LAWLESS: Would you come forward  
13 and we'll have the court reporter swear you in.

14

15 (Witness sworn.)

16

17 MR. KABILLSKI: Good morning. Thank you very  
18 much. I appreciate the opportunity to share with you  
19 about this new EQIP provisions of the farm bill. We see  
20 that this new farm bill and some of the new provisions  
21 really offer some great opportunity for land owners and  
22 land producers across Illinois, particularly the EQIP  
23 program. This particular program is brand new for 1996  
24 and for the years ahead.



1                   There used to be an annual cause program, but  
2                   the program pretty much provided funds across the states  
3                   and didn't focus really on where the natural resource  
4                   concerns and problems were at the county levels. Under  
5                   the EQIP program, what's happened is that the Illinois  
6                   state tech committee, which is an organization that  
7                   represents a multitude of agencies, private individuals  
8                   and organizations across the state of Illinois, they  
9                   meet -- they identified what we would call conservation  
10                  priority areas within the state of Illinois.

11                  There was 10 priority areas that were  
12                  submitted to national headquarters, which is what the  
13                  EQIP provisions call for. These 10 priority areas would  
14                  be areas that would be funded land owners go in and make  
15                  application for technical assistance as well as financial  
16                  assistance. Within the 10 priority areas that were  
17                  submitted in Illinois, there were two of them that really  
18                  dealt with animal waste management systems. We had  
19                  approximately, if I remember, about 54 counties that were  
20                  submitted, that would include a large portion of the  
21                  Northwest section of the state down through the central  
22                  part, and then the Southwest portion of the state. Those  
23                  two conservation priority areas, the provisions of the  
24                  law require that 50 percent of all the EQIP funds that

1           come down to the states be spent on providing assistant  
2           for animal waste management systems.

3                         Then in addition to that, there was what we  
4           call natural resource priority concerns that would be  
5           eligible for funding, also which would be providing  
6           assistance to land owners within every county of the  
7           state of Illinois. And that particular program went  
8           through a water quality initiative type practices would  
9           provide cost share up to 85 percent to land owners for  
10          installing various conservation measures to protect and  
11          to implement animal waste management systems. The  
12          maximum for the priority areas is 75 percent.

13                        We expect to hear within a week, hopefully  
14          not more than two weeks, Secretary of Agriculture will  
15          announce the conservation priority areas that will be  
16          funded across the nation, and we here in Illinois will be  
17          getting that word and at that time we'll be utilizing  
18          local work groups at the county levels.

19                        Land owner operators would go into those  
20          counties and make application as they have in the past,  
21          but the difference is they would be making application  
22          only within these priority areas for the majority of  
23          those funds. Those land owners then would be ranked  
24          against other land owners. But as a result of having two

1 priority areas that really tie directly to the animal  
2 waste management systems, they will score out and rank  
3 much higher; meaning, there be would more funds allocated  
4 to those two priority areas.

5 The water quality concern, which is also  
6 another part of it, that would allow land owners across  
7 the state to apply. The costs are the same; however, the  
8 percentage of dollars made available to any counties for  
9 this particular concern would be a less percentage. 65  
10 percent of all the funds spent under the EQIP program,  
11 which is approximately 200,000,000 across the nation, we  
12 would get a percentage of that in Illinois, and 65  
13 percent of that would have to be spent within these 10  
14 priority areas. Now that was 50 percent has to be spent  
15 on animal waste, so you can see there's a tremendous  
16 target area. The remaining are spent on the recourse  
17 concerns identified in the counties across the state of  
18 Illinois. There again, those land owners not within  
19 priority areas would be available to the remaining funds  
20 available.

21 I guess that would probably give you an  
22 update on the EQIP program itself. And if there's any  
23 question --

24

1 MS. LOZUK-LAWLESS: We'll take questions  
2 after the agencies have finished their testimony. So if  
3 you could, sit down.

4

5 MR. WARRINGTON: That concludes our  
6 presentation this morning.

7

8 MS. LOZUK-LAWLESS: Thank you very much.  
9 Doctor Marlin?

10

11 MR. MARLIN: Before we call any witnesses, I  
12 would like to introduce into the record the livestock  
13 registration of the state of South Carolina, which I  
14 don't believe is introduced yet. And it's a document  
15 that begins 1996 regular section, act 460, but the word  
16 South Carolina appears in the cross.

17

18 At this time, I believe it's appropriate that  
19 we have two of our people discuss some of the issues that  
20 have recently been raised, the testimony of Sally  
21 McConkey on flood plains, and myself on the map issue can  
22 be done at your convenience.

22

23 MS. LOZUK-LAWLESS: Thank you, Dr. Marlin.  
24 We'll mark as an exhibit for the record, the act 460

1 which has been entered as Exhibit Number 65.

2 Mr. Marlin, would you like to give you  
3 summary?

4

5 MR. MARLIN: Okay, the first person we would  
6 like to appear, Don Keefer, from the Illinois State  
7 Geological Survey.

8

9 (Witness sworn.)

10

11 MR. KEEFER: As John mentioned, I'm Don  
12 Keefer with the ground water resources and protection  
13 section at the Illinois State Geological Survey division  
14 of the Illinois Department of Natural Resources.

15 In his testimony to the board on January 29th  
16 of this year, Dr. Saterly proposed a change in the  
17 minimum thickness of earth and liners from two feet to  
18 one foot, or one and one-half feet. As stated in prior  
19 testimony, there are several mechanisms for failure of  
20 earth liners. It's the position that this proposed  
21 change would significantly increase the frequency of  
22 liner failures that would cause in these mechanism.

23

24 Also concerned that this change would provide  
less tolerance for irregularities in the liners that

1 would be introduced during construction. A one foot  
2 thick liner would consist of only two lifts. Failure in  
3 one of these lifts would present a much larger threat to  
4 the integrity of the interior liner.

5 This department believes unacceptable risk  
6 and continues to support the Department of Agriculture's  
7 proposal. Thank you.

8

9 MS. LOZUK-LAWLESS: Thank you. Mr. Marlin?

10

11 MR. MARLIN: Continue with the Department of  
12 Engineering Water Resources.

13

14 (Witness is sworn.)

15

16 MR. STRALOW: As John introduced, I'm Martin  
17 Stralow, I'm the division manager of the Division of  
18 Water Resources Management of the office of Water  
19 Resources of the Department of Natural Resources. I'm a  
20 licensed professional engineer with 22 years of  
21 experience in water resources engineering, the last 13  
22 involved with the state's safety program.

23

24 My testimony this morning will be basically  
in support of the Department of Agriculture's proposed

1 amendments to the rules, specifically to emergency  
2 spillway, freeboard and slope stability. The proposed  
3 rules provide for containment of reasonably anticipated  
4 rainfall events. A specified freeboard above the total  
5 design volume of two feet which may be reduced to one  
6 foot for lagoon, providing capacity for less than 300  
7 units. Recommend freeboard provide for additional  
8 rainfall storage in excess of the required six inches  
9 included in the total design body. Six inches roughly  
10 correspond to the 25 year, 24 hour rainfall, the criteria  
11 in the ASAE standard. The proposed freeboard provides  
12 for containment of greater rainfall accumulations that  
13 may occur specifically for longer duration storms.

14 The Illinois State Water Survey miscellaneous  
15 publication 151 1993 flood on the Mississippi River shows  
16 that the two month's rainfall totals in excess of 11.5  
17 inches have occurred 10 times since 1895 or about once  
18 every 10 years. The Illinois State Water Survey  
19 bulletin, 70 frequency distribution of hydroclimatic  
20 characteristics of heavy rainfalls in Illinois. 25 year,  
21 10 day rainfall event being approximately 10 inches. And  
22 the 110 day rainfall being approximately 13 inches. A  
23 prescriptive freeboard of two feet on the larger lagoons  
24 to provide for both additional impoundment storage and

1 wave run up is certainly reasonable and appropriate.

2 And second item with regard to emergency  
3 spillways properly designed, constructed, operated and  
4 maintains emergency spillways, are certainly beneficial  
5 for any impoundment structure. For the typical  
6 structures being addressed by the proposed rules, it is  
7 more critical to be designed for and operate with an  
8 adequate amount of freeboard as previously discussed. I  
9 agree with the EPA's position that emergency spillway  
10 means pipes through this type of embankment may create  
11 more opportunity for problems than solved and not  
12 recommended by the Department of Natural Resources.

13 Finally, regarding embankment slope  
14 stability, three to one in the proposed rules is an  
15 adequate non-design minimum. One of the major reasons  
16 for choosing this slope was for ease of maintenance.  
17 Steeper slopes may be adequate, especially the fluid line  
18 where maintenance is not regularly performed. Such  
19 steeper slopes should be designed by a licensed engineer,  
20 as Mr. Boruff indicated this morning.

21 In summary, Department of Natural Resources  
22 supports the Department of Agriculture's proposed  
23 amendments to the proposed rules, specifically to  
24 emergency spillway, freeboard and slope ability. Thank



1           you.

2

3

MS. LOZUK-LAWLESS: Thank you, Mr. Stralow.

4

Doctor Marlin, would you like to call Sally McConkey?

5

6

MR. MARLIN: Yes. Sally McConkey of our

7

division known as the Illinois State Water Survey.

8

9

(Witness sworn.)

10

11

MS. MCCONKEY: I'm Sally McConkey, I'm a

12

professional scientist employed by the Illinois State

13

Water Survey since 1984. For the past four years, I've

14

been manager of the surface water and floodplain

15

information services. I'm a state water survey

16

registered professional engineer in Illinois, and I have

17

a masters of science degree in civil engineering from the

18

University of Illinois. As manager of surface water and

19

floodplain information services, I interact with the

20

public on a daily basis. I work with other state and

21

federal agencies involved in floodplain management. I

22

use the current regulatory 100 year floodplain maps, and

23

much of my work involves estimating 100 year flood

24

elevations using various engineering calculating methods

1 and computer modeling techniques.

2 I would like to offer some basic definitions  
3 and concepts related to floodplains and floods. The  
4 ten year flood is a flood event that on the average has a  
5 10 percent chance of occurring in any given year; this is  
6 on a long term average. A 25 year term flood event, that  
7 a flood on the average has a four percent chance of  
8 occurring in any given year. And similarly for the 100  
9 year event, it has a one percent chance of occurring in  
10 any given year.

11 The floodplain associated with particular  
12 frequency of flooding is that area that's expected to be  
13 inundated during that event and thus a ten year flood  
14 event. On the average, the floodplain would be -- the  
15 floodplain has a 10 percent chance of being inundated in  
16 any given year and so on. To give you some perspective,  
17 a two year flood has a 50 percent chance of occurring at  
18 any year. And for streams, that would be the bank full  
19 event. The water fills the top to find chattel. That's  
20 tied either to the magnitude of the discharge or the  
21 rainfall event.

22 And finally, a flood profile, which I'll  
23 refer to later, is a plot of flood elevations versus  
24 distance along the stream or river. In order to

1 delineate floodplain boundaries associated with a  
2 particular floodplain event, it's a three part process.  
3 First, the peak discharge for the particular location on  
4 the stream is determined for that frequency of event.  
5 Second, the channel and floodplain capacity at that  
6 location must be assessed to determine how high the water  
7 may rise; or in other words, the floodplain elevates.  
8 And third, that flood elevation must be translated to  
9 boundaries on the land defined by the topography.

10 Now currently available, floodplain  
11 information is the next topic that I would like to  
12 address. Through the national flood insurance program,  
13 100 years have been delineated for the entire state. And  
14 the map I brought, depict those floodplains that have  
15 been delineated for the national insurance program.

16  
17 MS. LOZUK-LAWLESS: Let the record reflect  
18 that the witness is referring to a map of the state of  
19 Illinois.

20  
21 MS. MCCONKEY: Produced by the federal  
22 management agency and have the power to modify those maps  
23 when petitioned. Many of the maps for Illinois are 20 or  
24 more years old, and 100 year floodplains and some limited

1 cases of 500 year floodplains are actually mapped.  
2 There's a significant variance in the quality and  
3 accuracy of the maps from county to county. Typically,  
4 floodplains are not shown for streams that drain an area  
5 of less than one square mile. Very few detailed profile  
6 calculations are developed for rivers and streams in  
7 rural areas, with the exception of some major rivers,  
8 such as the Illinois or Mississippi River.

9 Typically, detailed studies and model  
10 development have only been performed by urban areas.  
11 Only a subset of these study streams have ten year  
12 profiles published and none of these are in map form. In  
13 some area studies for the national flood insurance  
14 program do include 10, 50, 100 and 500 year discharges  
15 and profiles. The 25 year event though is not typically  
16 specified in flood analysis or assessment. At the scale  
17 of one is equal to 1000 feet, it will take literally  
18 thousands of maps measuring about two feet by three feet  
19 to show 100 year floodplains for just the unincorporated  
20 areas of Illinois. The current regulatory floodplain  
21 maps are a product of several decades of work and  
22 endeavors to improve their accuracy.

23 I would like to offer now some considerations  
24 and options for mapping floodplains, other than the 100

1 year event. There's a broad spectrum of procedures and  
2 models for calculating both discharge and flood  
3 elevations. The more accuracy needed and more data  
4 needed, the more time needed for the calculations and  
5 modeling, and hence the greater cost. The standard of  
6 accuracy that is required for the determination of the  
7 flood event and the boundary of the floodplain will  
8 significantly effect the cost of developing this  
9 information. Delineating approximate 10 or 25 year  
10 floodplain boundaries on the basis of topography shown on  
11 existing maps is not a likely option. In areas where  
12 engineering studies have not been performed, the  
13 boundaries of 100 year floodplain, such as shown on this  
14 map, were estimated using approximate methods. With as a  
15 base mount and boundaries of approximate 100 year  
16 floodplains, we're dealing with estimated features.  
17 However, lesser flood events do not leave a signature on  
18 the landscape and their boundaries may not be discerned  
19 from standard topography showed with 10 foot contour  
20 intervals. During significant flood events like the 100  
21 event, land cover may -- flow patterns during lesser  
22 flood events such as the 10 year or 25 year flood. The  
23 channel carries larger portion of the flood volume and  
24 will have a more significant role in defining flood

1 elevations. Channel geometry may vary significantly from  
2 one occasion to another along the river. Calculations  
3 and floodplain elevation and transferring that  
4 information to maps or boundary on property will require  
5 services of qualified civil engineers and land surveyors.  
6 It would include calculations or other frequency  
7 discharge of the site. A survey of the site to measure  
8 land evaluations, the cross section geometry and keeping  
9 in mind that the longer -- or longer the stream or river  
10 involved, the more cross sections would have to be  
11 measured. Third, for the development of models -- sorry,  
12 for the development of model stream -- for the  
13 development of a model to calculate flood elevations or  
14 the flood profiles, standard computer programs WSP 2 or  
15 Wispo or Heck, two national flood insurance programs  
16 could be used for the ten year or other frequency flood  
17 evaluations estimated along the stream or river course  
18 would then have to be translated to the land elevation to  
19 determine that actual boundary of the floodplain on the  
20 property.

21 A few other comments and observations, flood  
22 elevations vary along a stream or river, and a range of  
23 elevations may be needed depending on the length of the  
24 property adjacent to a stream or river. The cost of an

1 elevation survey of a property will be effected, whether  
2 or not it is, must be tied to a monumented data, such as  
3 NGB 1989 used by the geological survey, or if it's deemed  
4 on a local landmark. Topographic contours showed on  
5 topographic maps are becoming less frequent. They have  
6 not been updated for as many as 20 years, and specific  
7 funding at state or local levels will be needed to  
8 continue updates on those maps. Other options for  
9 delineating floodplains, debris lines or high watermarks,  
10 might provide a rough guide for a two or three year  
11 frequency event; however, without some measurement of  
12 discharge or engineering calculations, there will be  
13 little basis of the frequency of that flood event.

14 And I would like to offer this summary of my  
15 comments, state wide floodplains exist only for the one  
16 year floodplain. State wide floodplain mapping for other  
17 frequency events does not exist. The 100 year floodplain  
18 is the standard used by the federal and state government  
19 in Illinois for floodplain management. The calculations  
20 of floodplain evaluations and development of  
21 corresponding maps require data flexion and services of  
22 qualified engineers and land surveyors. And finally,  
23 cost and effort to develop floodplain elevations is  
24 significantly effected by the standards of -- standards

1 of accuracy and the methods it will be specified.

2

3 MS. LOZUK-LAWLESS: Thank you, Ms. McConkey.

4

5 MS. MCCONKEY: I do have an eight and a half  
6 by 11, if you would like a copy of it?

7

8 MS. LOZUK-LAWLESS: Yes, if you would like to  
9 bring it forward. Let the record reflect, Ms. McConkey  
10 has the eight by 11 flood area, and has been marked as  
11 Exhibit Number 66 for the record.

12 Doctor Marlin, would you like to make your  
13 final comments, or do you have anything else?

14

15 MR. MARLIN: I believe the only thing we have  
16 left is testimony on the map, the amount of area effected  
17 by setbacks. Do you want to do that now?

18

19 MS. LOZUK-LAWLESS: All right. I think we'll  
20 do it then after break, how does that sound? Because  
21 what we would like to do then is go in and we're going to  
22 start to see if there's any questions from the members of  
23 the audience. And like I said earlier, if you have a  
24 question for anyone, all you need to do is raise your



1 hand, wait till I acknowledge you and then we'll ask you  
2 to come forward. So what we're going to do now is take a  
3 five minute break. If you have any informal questions  
4 that you would like to approach the agencies about, I'm  
5 sure they're more than willing to talk to you. Thank  
6 you.

7

8

(At this time a break was taken.)

9

10 MS. LOZUK-LAWLESS: I would like to go back  
11 on the record. What we're going to do now is, going to  
12 start direct questions of agencies who have now  
13 testified. I'll start with some initials questions with  
14 the board, and some of the attorneys, and then we're  
15 going to look to the audience and we'll start with if you  
16 have any questions for any of the members of the panel or  
17 anyone who has testified. So if we could just begin.

18

19

Are there any questions from the members of  
the board?

20

21

22

23

24

MS. MANNING: Mr. Warrington, thank you for  
your summary of the laws and programs in the other  
states. Particularly, my question was: On part of your  
table, you have listed whether a permit is required or

1 not, and you use the word, I think, Missouri on construct  
2 or operate -- I guess in Minnesota. My question is:  
3 When you use the term permit, are you generally referring  
4 to a state permit program specific to the use of animal  
5 waste facilities or a federally developed permit here?

6

7 MR. WARRINGTON: I believe it refers to both  
8 or either. If there's any permit required, either  
9 federal or state.

10

11 MS. MANNING: And we can crosscheck reference  
12 these with the regulations themselves. I was just  
13 wondering what you were cross referencing there. Thank  
14 you.

15

16 MS. LOZUK-LAWLESS: Mr. Meyer.

17

18 MR. MEYER: First of all, I would like to ask  
19 permission to introduce a document. I'd like to  
20 introduce waste treatment odors energy, which was held in  
21 Oklahoma in March of this year. I would like to briefly  
22 speak about this document. It was cosponsored by  
23 National Resources of the state of Oklahoma, Oklahoma  
24 Association Cooperative, Oklahoma Department of

1           Agriculture, Oklahoma consult the western regional  
2           biomass energy program, Oklahoma Agriculture  
3           Experimentation, Oklahoma State University and Oklahoma  
4           Cooperative Service, Oklahoma State University.

5                         In this document, it indicates that recovery  
6           methane is economically productive. I have -- I have  
7           some copies of this, Ms. Chairman, that we can make  
8           available. But I -- it just seems to me that we're not  
9           taking advantage of natural resource, which is methane,  
10          which is produced by the hogs and their livestock. And  
11          the only thing that has to be done is rudimentary  
12          engineering, consists of putting a cover on the -- on the  
13          lagoon and then transferring the gas to some use in  
14          heat -- be it heating or some sort of boiler. And if  
15          there's a greenhouse effect, methane is 22 times more  
16          reactive than carbon dioxide. And if there's an odor  
17          problem associated with swine production, collection of  
18          the gas would eliminate the production of odor.

19                        Now it seems to me that the only solution  
20          that there is to the odor problem as presented to date is  
21          a setback. And a setback is a prohibition. And the use  
22          of digestives is an alternative. And I believe -- I  
23          haven't read any testimony, say one person who -- who has  
24          even mentioned odor. Now you can take a cross section of

1 the public that is here that isn't represented by  
2 ourselves and other governmental officials, I don't think  
3 there's a person here that is interested in water  
4 pollution problems, that they're all interested in odor  
5 problems.

6 And I wish that the Illinois EPA, the  
7 Department of Agriculture, and Department of Natural  
8 Resources would respond to me in writing concerning  
9 methane production per unit in any information that you  
10 can find concerning the production and use of digestive  
11 gas, and any associated material that would be -- that  
12 would be available. Now I realize that this is -- this  
13 is a quote/unquote sacred cow that no one wants to talk  
14 about, just because of the natural production of methane.  
15 No one wants to regulate that.

16 But as I said, if there's a greenhouse  
17 effect, livestock production of swine probably, I would  
18 guess, produces more methane than the state of Illinois,  
19 than landfills do which are regulated. And the trick is  
20 to regulate the facilities that could not afford it.  
21 Those that can not economically afford it. I don't see  
22 no reason why we don't require them to collect -- collect  
23 digestive gas. And according to this report, there's a  
24 cutoff where you make money. And I'd just like to hear

1           your comments on it. Thank you.

2

3                           MS. LOZUK-LAWLESS: Thank you, board member  
4 Meyer. I would like to show for the record, that the  
5 document that Mr. Meyer was referring to, swine waste  
6 treatment, odors, energy and economic workshop has been  
7 marked and entered into the record as Exhibit Number 67.

8                           And members of public, if there are any  
9 exhibits that you would like a copy of, please contact  
10 the board and note what number it is or the title, what  
11 you can remember of it, and then you can request a copy  
12 of it from the board. I only have usually one copy up  
13 here. Sometimes we have a few for the agencies. But if  
14 you would like a copy of anything, of course, you can  
15 request it at the board's address.

16                           Would any of the agencies like to comment now  
17 or reserve their comments in writing?

18

19                           MS. MANNING: Other testimony in the record,  
20 as you recall, on the issuing of methane from Dr.  
21 Schafling there at our Galesburg hearing, if I'm not  
22 mistaken.

23

24                           MS. LOZUK-LAWLESS: Yes.

1                   MR. WARRINGTON: We've looked at that and put  
2 them in ours.

3

4                   MR. BORUFF: Department of Agriculture will  
5 do the same. We'll review the literature what we'll have  
6 and meet board member Meyer's request.

7

8                   MS. LOZUK-LAWLESS: Any other questions from  
9 members on the board?

10

11                   MS. MANNING: For Mr. Kabillski, if I could  
12 ask you questions on the EQIP? Thank you very much for  
13 coming today. It was very nice for you to be here. It's  
14 not often that we get a federal government official to  
15 offer your sort of statement going on in our proceeding.  
16 Thank you for that.

17

18

19

20

21

22

23

24

                  MR. KABILLSKI: When the program was set up,  
it called for conservation priority areas, and then it

1 called for what we call natural resource priority,  
2 concerns two separate entities. And when that was set  
3 up, it was established funding of 65 percent of all the  
4 money to go for the conservation areas, and 35 percent to  
5 go to these resource concerns. 35 percent covers all  
6 counties in the state. The 65 percent only covers the  
7 conservation priority areas that are identified.

8  
9 MS. MANNING: Okay. And you identified two  
10 of them being livestock management, livestock waste  
11 issues?

12  
13 MR. KABILLSKI: That's correct.

14  
15 MS. MANNING: Are those two separate areas of  
16 the state then?

17  
18 MR. KABILLSKI: Yes.

19  
20 MS. MANNING: Where are those areas?

21  
22 MR. KABILLSKI: Those cover about 35 counties  
23 in the Northwest to the central part of the state, and  
24 then another 17 counties or a little more than that in

1 the Southwest section of the state. Those were the  
2 conservation priority areas identified that were  
3 submitted that had the greatest number of animal numbers  
4 within those counties, where we thought the problems  
5 would be the greatest.

6  
7 MS. MANNING: Is there an issue in terms of  
8 direction of federal dollars in terms of size and  
9 facility, and is there -- is there some sort of movement  
10 going on within the federal government to delineate a  
11 specific size and facility that would or would not be  
12 eligible for funds?

13  
14 MR. KABILLSKI: Last Fall, there was a  
15 proposal coming from Washington that asked each of the  
16 state technical committees at the state level to make  
17 recommendations for defining what a large livestock  
18 facility would be. And at that time, there was a lot of  
19 inconsistencies among the states across the country. We  
20 here in Illinois called a task force together to try to  
21 bring various sides from one end to the other end of the  
22 spectrum to come to some consensus. At this time, we --  
23 that group had not come to a one number figure, and in  
24 the process of that task force, we received word from



1 national headquarters that the secretary of agriculture  
2 asked the state technical committees not to make  
3 recommendations to the state conservation at this time.  
4 In the final rules, we may have further guidance as to  
5 range. We don't know exactly what the secretary will  
6 propose. At that time then, maybe there will be a  
7 proposal that the states then would identify a specific  
8 number, and we do not have that at this time.

9

10 MS. MANNING: Okay. Thank you.

11

12 MS. LOZUK-LAWLESS: Okay. Thank you. You  
13 can sit down. Now I ask if there's any members of the  
14 audience that have a question? Yes, sir, come forward,  
15 and if you know who your question is directed to, that  
16 would be helpful.

17

18 MR. THEESFED: Thomas Theesfed, and I  
19 would like to ask a question of the gentleman from the  
20 Illinois EPA on the setback of the facilities. I would  
21 like to know what size those units were, and how you  
22 arrived at the distance for the setback and when those  
23 figures were compiled.

24

1                   MR. WARRINGTON: Are you referring to the  
2 setback numbers on the livestock facility?

3

4                   MR. THEESFED: Yes.

5

6                   MR. WARRINGTON: I didn't directly  
7 participate in the advisory committee, my boss did, so I  
8 think I'm going to have to pass this one to you, Chet.

9

10                  MR. BORUFF: Number one, if I could restate  
11 what I heard you ask: You would like to know what  
12 specifically are the setback distances as outlined in  
13 Livestock Management Facility Act?

14

15                  MR. THEESFED: No, I would like to know how  
16 you arrived at those particular figures, and what figures  
17 were used and how they were compiled.

18

19                  MR. BORUFF: Actually, distances themselves  
20 as in the act, were arrived as part of the legislative  
21 process that came to us as the final bill then for the  
22 Illinois General Assembly. And so what we have been  
23 dealing with here with the proposed rules is working  
24 within that framework of the General Assembly set out in

1           those guidelines. I can restate to you what those  
2           distances are, but evidently you want more than that.  
3           But I really can't -- I don't feel qualified to speak to  
4           how those evolved over a period of time, but what you're  
5           dealing with here in the proposed rule.

6  
7                         MR. THEESFED: I was generally aware of the  
8           distances, I was just wanting to know how they were  
9           Arrived at and what figures were used to derive those.

10  
11                        MR. BORUFF: As a basis, since there was  
12           already a setback provision, title 35 of the Illinois  
13           Environmental Protection Act that was used as a basis,  
14           but I know some discussions later on through the  
15           legislative process, there was a feeling that units would  
16           increase in size, operation would increase in size, there  
17           should be incrementally larger setbacks, and that was  
18           provided for in this new act, which would expand. Shows  
19           setbacks for larger operations. I guess I could speak  
20           that the existing setbacks were -- entitled 35, were used  
21           as a base in which the General Assembly worked off of.

22  
23                        MR. THEESFED: Okay. Thank you.

24

1                   MS. LOZUK-LAWLESS: Thank you, sir. Anyone  
2 else in the audience who has a question? Okay, sir, come  
3 forward.

4  
5                   MR. LEONARD: My name is Jack Leonard, I have  
6 a question for any member of the -- on the board  
7 submitting testimony, and that question is: Do you or  
8 your immediate superior or any member of your immediate  
9 family have a financial interest in the operation of a  
10 life stock facility?

11  
12                   MR. BORUFF: I currently, besides my  
13 involvement with the Illinois Department of Agriculture,  
14 operate a cash grain operation in Rock Island County. At  
15 one point in time in my career, from the period of 1980  
16 to 1990 -- or excuse me, 1984, I did in fact raise  
17 livestock, both corn and hogs. I no longer have any  
18 financial interest in any ownership of any livestock,  
19 either in the state of Illinois or anywhere else. My  
20 farming interests are confined only to production of cash  
21 corn and cash soybeans.

22  
23                   MR. LEONARD: Would that also apply to your  
24 superior, to the best of your knowledge?

1

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MR. BORUFF: I don't feel qualified to speak for my superior's ownership in any operations or businesses outside of the department. I have no knowledge that I would feel qualified to speak to that.

MR. WARRINGTON: I know for myself, and to the best of my knowledge, not any of my superiors.

MR. MARLIN: No, my wife grew up on a farm, which is still in the farm with a handful of chickens, and I believe currently they have one donkey.

MS. LOZUK-LAWLESS: Thank you, sir. Anyone else in the audience that has a question of any of the witnesses that testified? Yes, Mr. Harrington.

MR. HARRINGTON: This question is going back --

MS. LOZUK-LAWLESS: Introduce yourself, please.

MR. HARRINGTON: Jim Harrington, for the Illinois pork producers, Illinois Beef Association,

1 Illinois Farm Bureau, and I just have a question of  
2 clarification on one of the definitions in the  
3 regulations that we didn't pick up on before, and the  
4 definition in particular we're talking about is livestock  
5 pasture operation. I believe -- believe it is on seven  
6 of 26 of the board's --

7

8 MS. LOZUK-LAWLESS: Actually, page eight of  
9 36.

10

11 MR. HARRINGTON: I have a copy off the Net.

12

13 MS. LOZUK-LAWLESS: Page eight of 36.

14

15 MR. HARRINGTON: And I'm wondering if -- I  
16 apologize for not having this in pre-filed question. If  
17 the department could comment on this definition and how  
18 it would apply to such things as winter pasturing, where  
19 the cattle are fed in field, or where the grass or soil  
20 or other vegetative cover may not be in place, and also  
21 how it would apply to such things as barnyards where  
22 animals are held prior to dairy farm, perhaps prior to  
23 milking?

24

1                   MR. BORUFF: I'll try as best I can to answer  
2 your question, referring to different sources in the act  
3 and also in the rules and your -- at least my  
4 understanding of what you're asking.

5                   First of all, I guess referring to section  
6 10.30 of the act itself, where it talks about Livestock  
7 Management Facility, but then it also says that livestock  
8 pasture operations, where animals are housed on a  
9 temporary basis, then it talks about several different  
10 areas that may be temporary are not subject to this act.

11                   So in answer to your question, you may want  
12 to clarify for me, but if it would be a pasture operation  
13 where those animals were being housed temporarily, it  
14 would be our feeling that it would be applicable to this  
15 act because of that section.

16                   Then, you know, I guess I would also refer to  
17 the post rule itself, and this would be at section --  
18 under the definitions but at 506.103, referring to  
19 definitions. And let me just read it outloud, that  
20 livestock pasture operation means a lot or facility other  
21 than aquatic animal production facility where crops,  
22 vegetation, forage growth or post harvest residues that  
23 are grown in place are sustained in the normal growing  
24 season over a substantial portion of the lot or facility,

1 and animals are not continuously confined or enclosed in  
2 a covered structure.

3 So I don't know if either one of those goes  
4 towards answering your question; probably I haven't. Not  
5 that I meant to avoid it, but I'm not sure what the  
6 question was.

7  
8 MR. HARRINGTON: Starting with subpart A of  
9 the definition in the regulations, I do not believe  
10 that's contained in the act, is that correct? Where it  
11 says crops, vegetation, forage growth.

12  
13 MR. BORUFF: I don't believe that it is.  
14 We're going to look here and see. That would not be in  
15 the act. The act itself did not include those specific  
16 definitions, so it was our feeling, in order for  
17 clarification, to work toward that.

18  
19 MR. HARRINGTON: I'm trying to clarify this  
20 for clarification: If livestock was left in a pasture or  
21 in the field during the winter and the crop coverage is  
22 worn down, it can still be a pasture operation, is that  
23 correct?

24



1                   MR. BORUFF: I believe it would, because in  
2                   the rule it talks about crops, vegetation, forage growth  
3                   or post harvest residues, so I believe it would include  
4                   that as well.

5  
6                   MR. HARRINGTON: It says, sustained in the  
7                   normal growing season, so that would mean outside the  
8                   normal growing season they would not have to be  
9                   sustained?

10  
11                   MR. BORUFF: Correct, it would be possible to  
12                   sustain under those situations.

13  
14                   MR. HARRINGTON: And then in subpart B, it  
15                   says animals are not continuously confined or enclosed in  
16                   a covered structure; does continuously confined refer  
17                   also to be in a covered structure?

18  
19                   MR. BORUFF: I believe the concept would  
20                   not -- continuously confine would refer to those animals  
21                   which are free to roam from time to time outside the  
22                   building that provides them shelter or may be from time  
23                   to time turned out as part of management. But as opposed  
24                   to that, continuously confined would be livestock that

1 day in and day out are under cover within that building.

2

3 MR. HARRINGTON: So if the livestock are not  
4 continuously under cover and are free to roam in the  
5 field, then that would be a livestock pasture operation?

6

7 MR. BORUFF: That would be my interpretation  
8 of the rules as were posed.

9

10 MR. HARRINGTON: Are there any other  
11 differing interpretations from any others of the panel?

12

13 MR. WARRINGTON: I think the definition has  
14 been placed for a long time, 521.0225. I believe that's  
15 probably taken from the federal register definition of  
16 concentrated effort. So I probably suggest, check some  
17 of the case law and preambles to that regulation to get  
18 some more detail.

19

20 MR. HARRINGTON: I'm sure that's probably  
21 where it's come from, but I'm trying to determine what is  
22 intended under the Livestock Management Act under these  
23 regulations today, so that the record will be clear when  
24 we go forward in the future. And I'm not here

1 necessarily to argue what the definition is, I'm trying  
2 to make sure we understand it.

3

4 MS. LOZUK-LAWLESS: Mr. Warrington, do you  
5 have anything further?

6

7 MR. WARRINGTON: No.

8

9 MR. MARLIN: We're not prepared right now to  
10 get into great detail about this, but pasture does  
11 include the vegetative live component. And as I heard  
12 the last part of your question, whether or not the  
13 animals are under cover and free to roam, and if free to  
14 roam includes a vegetative live cover, probably wouldn't  
15 have a problem.

16

17 MR. HARRINGTON: Would you agree, vegetative  
18 live cover is maintained during the growing season, that  
19 is sufficient under this definition?

20

21 MR. MARLIN: I'm not really prepared to  
22 comment on that at this point in time.

23

24 MR. HARRINGTON: Thank you. I have no

1 further questions.

2

3 MS. LOZUK-LAWLESS: Thank you, Mr.  
4 Harrington.

5 Any other questions from any members of the  
6 audience? Yes, ma'am, would you come forward.

7

8 MS. EMMETT: My name is Doris Emmett, and I  
9 would like to ask a question of Mr. Boruff. In his  
10 testimony, he said -- and I think he submitted it as  
11 document, number 55, that the Department of Agriculture  
12 has come up with a change in the setback language. I  
13 probably don't have the numbers right, text 506.70-A or  
14 701, and that two sections be removed. Could he  
15 elaborate on the difference in their setback language?

16

17 MS. LOZUK-LAWLESS: You're correct, it was  
18 Exhibit Number 55.

19

20 MR. BORUFF: Yes. And at a previous hearing,  
21 a comment, I believe, came from a board member, was made  
22 to the effect that would our department consider adding  
23 to the rules either a part or all of the setback language  
24 as it was written specifically in the act as a part of

1 the rule. I believe that probably the intent of that  
2 request was that it would make it easier for someone who  
3 was trying to understand the rules, if they had language  
4 there as well. Because our proposed rules, when we first  
5 provided the board with, didn't include all that  
6 language. And so we considered their request and felt  
7 that it was a valid request.

8 So basically what we have done then is  
9 expanded post rule at that section as reversed setbacks  
10 and have simply proposed to the board through our exhibit  
11 that all of that language pertain to setbacks be taken  
12 directly from the act and also repeated within that  
13 section as well.

14 Now when I commented in my statement about  
15 the exhibit, that would be removing a couple of those.  
16 Let me look at the rule here to get the exact citation  
17 here for you. But in summary, in our proposed rule,  
18 there were a couple of letters or lines that were  
19 directly taken from a portion of the definitions in the  
20 act. Had we not removed those two sections at the same  
21 time that we amended our proposal by adding back to the  
22 language, then there would have been those two letters  
23 which basically would have been a redundant repeat of  
24 what was already there. And so it was just in -- my

1 comment to the board was to take those two letters out so  
2 it wouldn't be redundant. But that effect with the  
3 proposal that we have to the board, that section,  
4 pertaining to setbacks will include all the language as  
5 it is currently found in the Livestock Management  
6 Facilities Act.

7

8 MS. EMMETT: So what is the Department of  
9 Agriculture recommending as the setback distances?

10

11 MR. BORUFF: We're recommending the setback  
12 distances as outlined in the Livestock Management  
13 Facilities Act. We're not making any changes to any  
14 distances at all. Our amendment was dealing basically  
15 with the change where those would be found or the  
16 inclusion of additional language within the rules. We're  
17 not recommending any changes to the setback distances,  
18 and that's established by statute.

19

20 MS. EMMETT: Thank you.

21

22 MS. MANNING: I'd like to mention that  
23 Champaign County Chairman Becker and Chuck Arbuckle are  
24 here. Are you still here? Hi. Welcome. I just wanted

1 to say welcome.

2

3 MS. LOZUK-LAWLESS: Any member of the public  
4 that are here today that would like to ask a question?  
5 Yes, ma'am, please come forward.

6

7 MS. RACE: My name is Judy Race, I have a  
8 question for any member of the board. Can any one of you  
9 define for me the definition of plume, and how setbacks  
10 will protect the neighboring public from plume events?

11

12 MR. BORUFF: I will respond to that, because  
13 it looked like nobody else was going to. The term plume  
14 doesn't occur, to my knowledge, within the act or rules,  
15 and as such isn't defined. So I'm not even -- I have an  
16 idea what the concept of plume is, but we can't  
17 officially respond to something that isn't in the act or  
18 the rules. Setbacks we've dealt with in the rules, are  
19 clearly defined within the legislation, and that's what  
20 the rules refer to.

21

22 MS. RACE: So plumes weren't taken into  
23 account when setbacks were arrived at?

24

1                   MR. BORUFF: I'm assuming the use of the word  
2 plume, you're talking about some relative area of  
3 coverage of landscaping odor or something like that. So  
4 I guess if you could help me with the definition of plume  
5 or what you're meaning there.

6  
7                   MS. RACE: Sure. My reading of Dr.  
8 Schafling, he describes plumes as originating maybe over  
9 the lagoon, and full concentration can be picked up and  
10 carried for quite a distance, and then they settle for  
11 full concentration for setbacks.

12  
13                   MR. BORUFF: I guess I would comment that the  
14 whole concept of setbacks is to provide for delusional  
15 effect for over a period of area as an operation and  
16 corresponding home or business are separated. I believe  
17 intent of the act was to allow for larger increments of  
18 setback from larger operations. Also towards the end,  
19 the act speaks with a difference of setback as it applies  
20 for a single residence, as a populated area or common  
21 source of semblance. I believe that concept of plume,  
22 now that I've explained it, was taken into consideration  
23 by the General Assembly when they look at the increase of  
24 implemental setbacks.



1 MS. RACE: My understand, plume can carry for  
2 greater than one mile and setbacks don't address that  
3 distance.

4  
5 MR. BORUFF: Within the act, the largest  
6 setback distance would be a one mile setback, would be  
7 from the very largest operations as defined by the act  
8 from a populated area.

9  
10 MS. RACE: Those are greater than 700?

11  
12 MR. BORUFF: 700 animal units.

13  
14 MS. RACE: Do you have any idea how many of  
15 that size we have in Illinois?

16  
17 MR. BORUFF: No, we don't, because it does  
18 not exist in the state place of registration where we  
19 know the size of operations in general, and so I couldn't  
20 specifically tell you if or how many there would be of  
21 that size.

22  
23 MS. RACE: Thank you.

24

1 MS. LOZUK-LAWLESS: Thank you, Ms. Rice.

2 Any other questions? Yes, sir, would you  
3 come forward?

4

5 MR. MCLINDEN: My name is Lynn McLinden,  
6 speaking as a citizen. I've just obtained a copy of  
7 these proposed regulations this morning, and only in the  
8 last 20 minutes I've started scanning a few of the pages,  
9 but it appears that these are the current emergency  
10 regulations which essentially are now being proposed to  
11 become permanent, is that essentially the case?

12

13 MR. BORUFF: If I could, let me give you a  
14 lit bit of history to where I believe we've come from to  
15 arrive at where we are today. Livestock Management  
16 Facilities Act, which was passed and signed into  
17 regulation on May 21st, 1976. Within that said -- within  
18 six months, the advisory committee made up of four  
19 departments, and our department chair would propose to  
20 the board the permanent rules, which they would then  
21 adopt in a six month period for final adoption by May  
22 21st, 1997. And so our department was working toward  
23 that process.

24

And in fact, my summary comments earlier on

1 mentioned that we were working and meeting in the Fall of  
2 '96. There were some concerns raised for various areas  
3 through the General Assembly, but until such time as the  
4 rules were completed, the state was without regulations  
5 that were intended by this act. And so we have been kind  
6 of deviated for a period of time to develop emergency  
7 rules, which we then proposed to the Pollution Control  
8 Board, and they adopt and became effective as of October  
9 31st of 1996.

10 And due to a legislative action that was  
11 taken a few weeks ago, those emergency rules are in  
12 effect until such time as the permanent rules would  
13 replace them. So as we were going through that emergency  
14 rule making process, we had already met with the advisory  
15 committee. We had received a great deal of information  
16 and recommendations that we were taking into  
17 consideration. So what we chose to do as department  
18 advisory committee, were to look at those areas of the  
19 act, and if they were in fact regulations that were  
20 missing, we looked to those areas that would have the  
21 most immediate impact possibly to environmental concerns  
22 to the state; areas such as lagoon registration, siting  
23 and design criteria, waste management plans, those areas  
24 where thought the greatest potential for environmental

1 impact. We wrote our emergency rules and proposed those  
2 to the board, which they subsequently adopted.

3 At that point in time, our committee  
4 basically got on a course of action to develop the  
5 proposed rules. And the committee felt that in those  
6 emergency rules, we had to cover much of what would be  
7 proposed as current rules. So when you compare the two,  
8 the emergency rules do not include all the sections that  
9 the permanent rules do. Those are the sections that  
10 didn't have immediate environmental concerns we were  
11 looking at last August. Also in the proposed rules that  
12 they are talking to the board about here, there were a  
13 few minor changes where they have considered the  
14 emergency rules and make some changes; we hope some  
15 improvements upon. That's why they look similar but  
16 there may be some differences.

17

18 MR. MCLINDEN: Thank you. That's actually  
19 more than I probably can absorb on my feet here but --

20

21 MS. LOZUK-LAWLESS: That's okay, you can  
22 download it later.

23

24 MR. MCLINDEN: For point of clarification in

1           what is labeled section -- the subpart E labeled  
2           penalties, I'm concerned about the permanent rules that  
3           will be adopted concerning enforcement, and this is the  
4           subsection regarding penalty -- subpart regarding  
5           penalties and the principle enforcement mechanism appears  
6           to be anticipating a construction cease and desist order,  
7           and later operational cease and desist order. As a point  
8           of information, is anyone able to clarify to me what are  
9           the consequences to the owner or operator for violating a  
10          cease and desist order?

11

12                         MR. BORUFF: Well, of course, the cease and  
13           desist order itself would be the cessation of all  
14           business activity on that livestock operation. As far as  
15           violation over and above that, would be --

16

17                         MR. MCLINDEN: Let's assume they don't  
18           respond, and agree and comply with the cease and desist  
19           order; in such a case, what might be the consequences?

20

21                         MR. BORUFF: It's our opinion that at that  
22           point in time, there would be civil penalties and civil  
23           procedures that would be applicable.

24

1                   MR. MCLINDEN:  And such penalty procedures,  
2                   are those in general state law, or would those be  
3                   specific procedures included as part of these  
4                   regulations?

5

6                   MR. BORUFF:  It was my understanding that  
7                   those would be already existing in the state law.

8

9                   MR. MCLINDEN:  Okay.  Another point -- a  
10                  question really, the next subpart F entitled financial  
11                  responsibility, I would assume that an operation with  
12                  such possible environmental and other adverse  
13                  consequences would surely have some sort of penalties  
14                  contingent upon failure to comply with regulations, so I  
15                  was particularly interested in scanning the section, and  
16                  it appears that there's a requirement in the state law  
17                  which these regulations are to implement requirement for  
18                  applying a surety bond or some other evidence of surety.  
19                  And in section 506.603, entitled level of surety, I find  
20                  that existing wording rather vague.  This is on the top  
21                  half of page 35.

22

23                  MR. BORUFF:  Yeah, I see where you're reading  
24                  from.

1

2

MR. MCLINDEN: I wonder if there's any  
intention to clarify this section, .603?

4

5

MS. LOZUK-LAWLESS: Are you referring to 603  
A or B, or both?

7

8

MR. MCLINDEN: Each of them separately, and  
in combination primarily. The total impact.

10

11

12

13

14

15

16

17

18

MR. BORUFF: I guess I would first comment on  
506.603-A, and is -- that was taken directly from the  
Livestock Management Facility Act where it was the  
General Assembly's intention there that level of surety  
be based on the size of the lagoon, the size being the  
bigger the lagoon, of course, the higher the possibility  
for some type of impact, there are a higher level of  
surety. So that explains A.

19

20

21

22

23

24

B, I'll read it, for those who don't have the  
rules in front of them: Unless otherwise provided for by  
board regulations, department may adopt and promulgate  
all procedures and criteria reasonably necessary to  
perform its duties and responsibilities under this  
subpart.

1                   What we asked to the board, their concurrence  
2                   with our proposal that in this section and others in the  
3                   act, to undertake another process where -- like the case  
4                   here, formula or some type of termination would be  
5                   developed on what level of surety and operation to put  
6                   forth to cover that financial responsibility section.

7  
8                   MR. MCLINDEN: So this is to occur in the  
9                   future. And the formal request of such further hearings  
10                  and further regulation, I don't see as a formal part of  
11                  this document, but are you in essence incorporating that  
12                  in this hearing as part of your Department of  
13                  Agriculture's requests to the Pollution Control Board?

14  
15                  MR. BORUFF: Yes, that's been our intent,  
16                  that we propose and we're asking the --

17  
18                  MR. MCLINDEN: Will there be further public  
19                  hearings on a regional basis offering public input?

20  
21                  MR. BORUFF: Yes, there would be. Under the  
22                  authorities given to us under the Administrative  
23                  Procedures Act, we have the act to make rules and we do  
24                  such on a routine basis under a number of different



1 regulatory programs we're responsible for. And a part of  
2 those rules, upon being developed, would be printed in  
3 the state register, and then on the Illinois register and  
4 also there are public comment periods and areas, that  
5 would be our intent of the procedures.

6  
7 MR. MCLINDEN: Could you give us any preview  
8 of the rough level of surety that might be presently  
9 contemplated? This is where the rubber hits the road.  
10 And so far in the existing document, all I see in  
11 financial terms, one time only, potential of \$100 fine.  
12 Other than that, there seems to be no existing  
13 quantification of a dollar amount or any formula leading  
14 to a dollar amount. And can you give us maybe a preview  
15 of some of the thinking that is being directed in this --  
16 on this issue?

17  
18 MR. BORUFF: I wouldn't feel qualified at  
19 this point in time to give you a dollar figure or some  
20 type of a rough sketch of what that might involve. I  
21 don't think it would be appropriate at this time.

22 One thing I might comment on though, on  
23 your -- you did mention the penalty that's provided  
24 within the law, that's another area, but also I think

1           it's important to remember that we currently have  
2           existing statutes, the size of this one in state law that  
3           provide for penalties should pollution occur, they're  
4           administered and have been by the Illinois EPA. If an  
5           operation has some environmental impact, they would also  
6           fall under those penalties which are existing under their  
7           act.

8

9                           MR. MCLINDEN: That's somewhat reassuring and  
10           comforting.

11                           I have one final brief point, if there's  
12           time?

13

14                           MS. LOZUK-LAWLESS: Certainly.

15

16                           MR. MCLINDEN: The issue of the setbacks is  
17           addressed to some extent by some language I found near  
18           the end of this document relating to -- I see here now on  
19           the lower half of page 35. I'm looking at subpart G,  
20           section 506.702, item B, which says: A setback may be  
21           decreased when waivers are obtained from owners of  
22           residences that are occupied and located in the setback  
23           area. I interpret that as language lifted directly from  
24           the state law.

1                   MR. BORUFF: That's correct to state that for  
2 that particular section, section 35 of the act, letter G.

3

4                   MR. MCLINDEN: So my question appears -- this  
5 appears to raise the possibility that an operator or  
6 owner of a facility, if he's resourceful, and energetic,  
7 and persuasive enough, may have the possibility of  
8 basically convincing the adjacent neighbors into signing  
9 an agreement that they would be happy with a waiver of  
10 otherwise required setback. And so this appears to be a  
11 loophole which possibly may not ever be exploited, but  
12 let's think of the worst case. Is it in fact a potential  
13 loophole where an operator could circumvent the intent of  
14 the otherwise existing regulation on setback distance?

15

16                   MR. BORUFF: I don't feel qualified to make a  
17 value judgment on what may or may not be a loophole.  
18 Simply, our rules incorporate language taken directly  
19 from the act itself.

20

21                   MR. MCLINDEN: Well, the next item, C,  
22 appears to give you some wiggle room in the area of  
23 adopting regulations implementing the previous part B.  
24 So it appears that is an opportunity where you might

1           potentially explore a remedy of a potential problem. I  
2           would just offer that as a friendly suggestion.

3

4                       MS. LOZUK-LAWLESS: Just so you note that  
5           capitalization is statutory language.

6

7                       MR. MCLINDEN: That's what I intended.

8

9                       MS. MANNING: I have a little follow-up to  
10          the questioner's question, particularly on financial  
11          assurance to the Department of Agriculture. I understand  
12          the Department of Agriculture's proposals. I think the  
13          board generally understands what you're proposing we do.

14                      What I have some concern with and as we've  
15          been talking amongst the board, what we have some concern  
16          with, the particular requirement that says surety  
17          instruments required under the section shall be acquired  
18          under the rule after the document of this act. How you  
19          feel your proposal to allow you to do rule making  
20          subsequent to our rule making is consistent with this  
21          provision of the act, which suggests to me that once  
22          these rules are effective, surety instruments should be  
23          in place.

24

1                   MR. BORUFF: Our proposal takes into account  
2                   a couple of realities, I guess, that the industry is  
3                   facing, that probably at the time the law itself was  
4                   enacted weren't known at that time. Because when you  
5                   look at the list of surety instruments, it lists  
6                   instruments or bonds. I think it refers to -- yeah, one  
7                   commercial insurance, a third option, a surety bond.

8                   Upon investigation of what our department and  
9                   other industry, and then the folks in the industry have  
10                  found, is that those type of commercially available  
11                  instruments don't exist within the purchase, either a  
12                  bond or insurance policy of some type. You think it's  
13                  possibly envisioned at the time. What that leaves then  
14                  are things like guarantee a letter of credit, or  
15                  certificate of deposit or some other cash instrument.

16                  And our intent through subsequent rule making  
17                  process, determine what level of cash collateral  
18                  essentially an operator would have to put forth to  
19                  provide that security, and how would it be based upon,  
20                  whether it would be volume or some actual tables or  
21                  information. But there has to be some level for some  
22                  type of formula for us to determine what level of surety  
23                  an operation can afford. And that was something we would  
24                  have to do in the subsequent ruling and to address.

1 MS. MANNING: And your answer to his question  
2 was, you don't have anything providing now in terms of  
3 what those formulas might be?

4

5 MR. BORUFF: That is correct.

6

7 MS. MANNING: Does the agency want to speak  
8 at all in terms of the financial assurances that are  
9 required and financial assurances required under 35 in  
10 any of the areas? Is there any information the agency  
11 expects to provide on the issue of financial assurance?

12

13 MR. WARRINGTON: We have been relying on the  
14 Department of Agriculture to determine these rules and  
15 for determining the available -- the type of financial  
16 assurance available and then required.

17 We would like to note that from my experience  
18 in say landfill financial assurance, these rules actually  
19 go farther. That the landfill financial assurance is  
20 based on the cost to put a cap on the landfill, into  
21 installing monitoring wells and to monitor the ground  
22 water for a period of time. The landfill financial  
23 assurance rules don't require cleanup as these rules do.  
24 They do require the removal of soils and returned to an

1 alternative use.

2

3 MS. MANNING: Thank you. That's all the  
4 questions I have right now.

5

6 MS. LOZUK-LAWLESS: Are there any other  
7 members of the public who have a question? Are there any  
8 other witnesses? Is there any members from the board of  
9 these witnesses? Yes, sir, Mr. Leonard.

10

11 MR. LEONARD: There is a provision in the  
12 Livestock Management Facilities Act for the alternate use  
13 of lagoon areas. I would like to know what alternative  
14 lagoon use could be done for that area, and there's a  
15 provision that a time period be allowed of two years  
16 before anything is done. I would like to have a comment  
17 for the board about what could be done with a lagoon that  
18 has been used for five years as an alternate use besides  
19 being a landfill?

20

21 MR. BORUFF: With the way we had attempted,  
22 the department that would -- such time as a lagoon would  
23 cease to be used for that function, we were not intending  
24 to anticipate all the future uses of that lagoon but

1           rather that the owner would come to us.  And if it was  
2           not to be used as a lagoon anymore, they may have an  
3           alternative purpose for it, and it may not be out of the  
4           realm of possibility that the contents can be removed,  
5           may be used for some type of -- whatever the case might  
6           be.  But if the new intended use did not provide for it  
7           to have any negative impact on the environment, we would  
8           have to do a case by case basis, not trying to anticipate  
9           what all the future uses a lagoon might be.

10

11                         MR. LEONARD:  Do you know why there's a two  
12           year provision?  Why isn't there a more immediate cleanup  
13           or --

14

15                         MR. BORUFF:  As I recall, during the time  
16           when the bill was being developed, that the two year  
17           period was in there in case the farm was still intended  
18           to be used as a livestock operation, but there may have  
19           been a period of time between one internship and another,  
20           and that was, I believe, the intent at that time.  If it  
21           was to be used by the new owner as livestock community,  
22           then that would allow that two year period for it to be  
23           used toward that regard.

24



1 MR. LEONARD: Thank you.

2

3 MR. BORUFF: Your welcome.

4

5 MS. LOZUK-LAWLESS: Thank you, Mr. Leonard.

6 Is there anyone in the office that has a question of any  
7 of the members? Yes sir.

8

9 MR. NICHOLS: My name is Elmer Nichols, and I  
10 would like to ask one question: It appears that you've  
11 covered the cleanup of the lagoon after it is no longer  
12 in use, and that they have to provide some financial  
13 security for that. But in my reading of the rule, it  
14 does not appear that you have included any financial  
15 security for the cleanup of a possible spill.

16

17 MR. BORUFF: I guess I would ask the  
18 representative from the EPA to maybe add, if they feel so  
19 inclined to do so, but under existing statute laws, most  
20 prior to the Livestock Management Facilities Act, there  
21 are provisions in place toward penalties should the  
22 provision occur. And so things that already existed this  
23 act here was to cover places or situations that weren't  
24 already covered in the state statute.

1 Rich, would you want to comment on that?

2

3 MR. WARRINGTON: We have had cases where  
4 spills have occurred or general contaminants are left.  
5 Both the courts, and circuit courts, have ordered  
6 cleanups and the remedy for that. And that cost comes  
7 out of the resources of whoever did the polluting.

8

9 MR. NICHOLS: But is it not true that in many  
10 cases, because some type of financial security wasn't  
11 posted ahead of time, that -- particularly in industry,  
12 and that's where we've had most of the problems, since  
13 this is relatively a new industry, that our tax dollars  
14 have been needed to clean those things up?

15

16 MR. WARRINGTON: Are you referring to things  
17 like hazardous waste and landfills?

18

19 MR. NICHOLS: Right.

20

21 MR. WARRINGTON: There are occasions where a  
22 responsible party cannot be found, or if found, don't  
23 have the present resources. So that on a federal level,  
24 there's a program designed to cleanup hazardous waste.

1           That program is funded by taxes on major generators and  
2           chemicals. Basically, it's paid for by the present  
3           chemical and oil industry.

4

5                       MR. NICHOLS: Would it not be prudent to  
6           maybe in this case include that?

7

8                       MR. WARRINGTON: That is the choice that the  
9           legislature department makes.

10

11                      MS. LOZUK-LAWLESS: Thank you. Is there  
12           anyone in the audience that has a question?

13

14                      All right. At this time then, I'm going to  
15           dismiss this panel and we're going to call the following  
16           witnesses up to testify. These are people who have  
17           already filed pre-filed testimony or notified the board  
18           earlier they wished to testify today. After each of  
19           these have testified, then we'll break for lunch, and  
20           then we'll get to every one who is signed up to testify  
21           today.

21

22                      Will the following individuals please come  
23           forward: Terry Feldmann, William Gray, Phil Breaker,  
24           David Thompson, Judy Race, Bill Emmett and Janet Fritz.

24

1 (Panel is sworn.)

2

3 MS. LOZUK-LAWLESS: Begin with Mr. Feldmann.

4

5 MR. FELDMANN: My name is Terry Feldmann.

6 I'm a May 1992 graduate of the University of Illinois  
7 College of Engineering, with a degree in Agricultural  
8 Engineer. I have worked with Animal Environment  
9 Specialists, Inc. as a consultant to livestock and  
10 poultry producers for over four years now. I help  
11 producers properly plan and optimize pork production  
12 systems utilizing sound science and technology.

13 I was raised on a small farm in Madison  
14 County, Illinois, where we raised hogs and beef cattle,  
15 and my parents still do today, except they have  
16 officially left the pork industry like any others this  
17 past Fall. I learned early on that manure was a great  
18 fertilizer. Although spreading manure was not a great  
19 job, I did value it. I enjoyed raising pigs and watching  
20 them grow. Pigs did stink then and they still do today,  
21 but many things have a different smell. Personally, I  
22 find the odor from the grain processing facilities, about  
23 10 miles South of my home outside of Peoria, more  
24 offensive. If the wind is out of the Southwest, it

1 travels right up the river. I live with it, but I'd  
2 rather smell pigs.

3 Overall, the rules submitted by the  
4 department are a major step toward protecting the  
5 environment and the livestock industry. My testimony  
6 will primarily address subparts A, B and C and their  
7 economic impact. Over the past few months, I have had  
8 several clients trying to register lagoons under the  
9 emergency rules. I have discussed several shortcomings  
10 of the emergency rules with various personnel at the  
11 Department of Agriculture, and hope that my testimony  
12 will help ensure that the permanent rules will not have  
13 the same shortcomings.

14 First, I find that the calculation of an  
15 animal unit, as defined in section 506.103, does not  
16 equally compare the volume or organic waste strength, nor  
17 potential odor among the species listed. For example,  
18 1000 animal units of milk cows, swine over 55 pounds, and  
19 swine under 55 pounds produce the following volumes,  
20 volatile solids and pounds of nitrogen per day: 714 milk  
21 cows, 1200 pound average, produced 1111 cubic feet, 7262  
22 pounds of volatile solids, and 385 pounds of nitrogen.  
23 2500 swine over 55 pounds, 350 pound average, typical  
24 gestating sow, produced 480 cubic feet, 1864 pounds of

1 volatile solids, and 166 pounds of nitrogen. Three  
2 thousand -- 33,333 swine under 55 pounds, a 30 pound  
3 animal is used as an average for the example, produced  
4 1700 cubic feet, 8800 pounds of volatile solids, 600  
5 pounds of nitrogen.

6 Although I see it as desirable to have a  
7 method to assess size of an enterprise for purposes such  
8 as setback distances, this should be an equal comparison  
9 among species.

10 I praise the use of ASAE Engineer Practice,  
11 Design of Anaerobic Lagoons for Animal Waste Management,  
12 and the USDA-NRCS Waste Treatment Lagoon Field Office  
13 Technical Guide. The act and rules should, however, use  
14 the most recent publication, which is ASAE EP403.2, which  
15 is incidentally an ANSI approved standard, instead of the  
16 ASAE EP403.1. The main difference between the two  
17 publications is that EP403.1 has a table listing six  
18 species of animals with manure production characteristics  
19 which was omitted from the more recent EP4403.2. This  
20 table, Daily Manure Production by Livestock Per 1000  
21 Pounds of Body Weight, is incomplete. It lists  
22 production rates for manure volume, volatile solids and  
23 total solids for feeder swine, dairy, poultry, feeder  
24 sheep or feeder beef, sheep and horse. It does not

1 include specific rates for gestating sow, lactating sow  
2 and litter, and nursery pig.

3 The production rates for sows and nursery  
4 pigs is drastically different from feeder pigs. Sows  
5 generally have a lower rate because they're limit fed,  
6 and nursery pigs have a higher production rate per pound  
7 of body weight. I suggest the use of the tables in  
8 chapter four of the USDA-NRCS Agricultural Waste  
9 Management Field Handbook, which is referenced for use by  
10 the USDA-NRCS Waste Treatment Lagoon Field Office  
11 Technical Guide. As an equal alternative, the rates, not  
12 necessarily the animal weights, found in the Midwest  
13 Plan Service 18, Livestock Waste Management Facilities  
14 Handbook are similar. I would estimate that over 95  
15 percent of the animal waste lagoons designed by engineers  
16 in this country are based upon these rates in these two  
17 publications rather than that listed in EP403.1. The  
18 table should be attached for comparison.

19 For example, the volatile solids and volume  
20 production rates for gestating sow, finishing pig and  
21 nursery pig are 2.13 pounds and .55 cubic feet, 4.8  
22 pounds and 1.1 cubic feet, 8.8 pounds and 1.7 cubic feet  
23 per 1000 pound of body weight respectively. I suggest  
24 that the rules list numbers specific to not only animal

1 type but phase of production volume, and volatile solids  
2 and total solid production rates to be used for lagoon  
3 design volumes. As has been required by the department  
4 under the emergency rules, we've been required to use the  
5 rates of feeder swine for that of gestating sows; for  
6 example, volatile solids and total solids, production  
7 rate of 4.8 and 6.0 instead of 2.13 and 2.5 pounds per  
8 day per 1000 pounds of body weight respectively. What  
9 this results in is approximately 38 percent increase in  
10 the required size of a typical lagoon. For a 3000 sow,  
11 approximately 1300 animal unit, farrow to wean facility;  
12 in other words, the pigs leave the facility at 10 pounds  
13 and are finished at another site, this cost on average an  
14 extra \$20,000 for a site not requiring a liner.  
15 Furthermore, I believe that the extra volume is of little  
16 benefit since an odor control volume could not have  
17 been -- odor control volume could have been achieved  
18 without the extra 38 percent increase in size. See  
19 attached paper by Clyde Barth, "The Rational Design  
20 Standard for Anaerobic Livestock Lagoons", which bases  
21 much of its design on a goal of low odor intensity and  
22 emissions. It uses similar design criteria as ASAE  
23 EP403.2, 1993.

24 Lagoon management is only casually addressed



1 in the proposed rules. The rules propose prefilling a  
2 lagoon to 60 percent of the design depth prior to use. A  
3 major problem is finding a source for this volume of  
4 water. The source and method of prefilling the lagoon  
5 should be required to be defined upon registration.  
6 Prefilling a lagoon prior to use will eliminate 90  
7 percent of lagoon startup odor problems.

8 The loading frequency is also important.  
9 Anaerobic bacteria are sensitive to loading, particularly  
10 the methane formers, which are the bacteria required to  
11 digest the main odorous compounds. The schedule for  
12 adding waste to the lagoon should be defined in order to  
13 be registered. Waste should be added to lagoons every  
14 three days or more frequently. Less frequent loading,  
15 slug loading, can cause serious odors.

16 Regarding liner requirements and  
17 certification, I suggest that it is better to specify an  
18 acceptable discharge rate rather than hydraulic  
19 conductivity. Soils ability to be compacted adequately  
20 to achieve a specific hydraulic conductivity will vary  
21 widely throughout the state. Some soils will yield in  
22 excess of 10 to the minus seventh centimeters per second  
23 and some less, even if adequately compacted. Many  
24 contractors are not skilled enough to compact soils

1 uniformly enough to achieve the required density for a  
2 hydraulic conductivity of ten to the minus seventh  
3 centimeter per second. With this in mind, it should be  
4 acceptable to adjust the liner thickness based on the  
5 actual hydraulic conductivity which can be achieved on a  
6 particular site. This can be easily accomplished by  
7 establishing an acceptable discharge rate; for example,  
8 10 or 20 years. As an example, a liner with a hydraulic  
9 conductivity of five times 10 to the minus seventh  
10 centimeter per second, might require a 2.5 foot thick  
11 liner instead of two foot, to prevent discharge for 20  
12 years through that liner, depending on the liquid level  
13 in the lagoon. A liner achieving 10 to the minus eighth  
14 centimeter per second, might only require a 1.1 foot  
15 thick liner.

16 I suggestion that a minimum one foot thick  
17 liner be required for all lagoons, unless Bentonite or  
18 other synthetic materials are used, even when site  
19 investigations do not find aquifer material within 50  
20 foot of the planned bottom of the lagoon. Exactly what  
21 supporting justification and data is required for liner  
22 certification, should be specifically defined in the  
23 rules. For example, engineers in Missouri can certify a  
24 liner based on classifying the liner material as CL, GC,

1 SC or CH according to the Unified Soil Classification  
2 System, and that the liner was adequately compacted; in  
3 other words, lab data not required.

4 Another problem that I see with liner  
5 certification, without defining the required data, is the  
6 variance in cost. A typical geotechnical engineering  
7 firm will charge approximately \$1,500 for the 60 to 70  
8 foot boring and site investigation report. If a liner is  
9 required, lab tests for determining the hydraulic  
10 conductivity and providing a technician on site during  
11 liner construction could easily run another 3000 to  
12 \$6,000 for an 800 animal unit finisher lagoon depending  
13 on the amount of time required for the engineering  
14 technician to be on site with a nuclear density meter.  
15 If you add an additional \$2,500 for the lagoon designer,  
16 who calculates the required volumes, balances that cut  
17 and fill, sizes pumps and transfer lines, and provides  
18 drawings and plans necessary for registration with the  
19 department, we've just spent seven to \$10,000 on  
20 engineering fees for a project that only has \$25,000 in  
21 expenses from the earth contractor. Pork producers in  
22 this state will not and cannot afford to spend 20 to 30  
23 percent of the cost of a project on engineering fees.  
24 They will either quit, a lot of the smaller producers, or

1 go to another state, a lot of the larger producers. And  
2 if Illinois loses its pork industry, I feel that everyone  
3 in the state loses.

4 Emergency overflows are an additional tool  
5 which -- that should be used to prevent or minimize  
6 potential for large spills caused by overtopping dikes  
7 and berms when there are storm events in excess of the 25  
8 year, 24 hour storms. Requiring that the emergency  
9 overflow be above the two foot freeboard elevation,  
10 increases the risk of the berm or dike breaking due to  
11 the increased head pressure. Also, the volume for the  
12 storm event requirement should be spelled out in these  
13 rules and not left to the brief description of ASAE  
14 EP403.1.

15 Additionally, the rainfall less evaporation  
16 varies greatly throughout the state. A specific schedule  
17 or map should be used to define this volume requirement.  
18 For example, evaporation should be less than annual lake  
19 evaporation since the surface area of the lagoon is  
20 different than the drainage or runoff area into the  
21 lagoon. This would require a minimum of six inches of  
22 net precipitation on the runoff area in some parts of the  
23 state and up to 21 inches in other parts of southern  
24 Illinois.



1 MS. LOZUK-LAWLESS: Thank you, Mr. Feldmann.  
2 Are there any questions? Board member Meyer.

3

4

MR. MEYER: How much would a fair trade cost?

5

6

MR. FELDMANN: The middle barrage trades

7

itself?

8

9

MR. MEYER: Yes.

10

11

MR. FELDMANN: Four or \$500.

12

13

MR. MEYER: And that's got water most of the

14

time?

15

16

MR. FELDMANN: Water in the farrowing creek?

17

18

MR. MEYER: Yes.

19

20

MR. FELDMANN: They have a source of water

21

for the animal.

22

23

MR. MEYER: And that would require plumbing?

24

1 MR. FELDMANN: Yes.

2

3 MR. MEYER: And what would you estimate the  
4 cost of the plumbing would be on a per unit farrowing;  
5 \$50, \$100?

6

7 MR. FELDMANN: No, I would say probably --  
8 yeah, maybe 40 or \$50.

9

10 MR. MEYER: And that also generally would  
11 have an electrical fixture and a heating lamp?

12

13 MR. FELDMANN: Yes.

14

15 MR. MEYER: And what would you value the  
16 electrical fixtures, the wiring and the heat lamp?

17

18 MR. FELDMANN: Probably \$30.

19

20 MR. MEYER: Okay. So that comes up to \$570  
21 on a per unit basis. And that times 1300, is 600,000. I  
22 would suggest to you that on the second page of your  
23 testimony, that in answer to maximum number \$20,000 is  
24 consequential when considered the cost of a farrowing

1 unit, that doesn't include the cost of the structure.

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MR. FELDMANN: I would agree that overall percentage of the total operation is a small percentage. I guess my point is that the values stated in the practice do not accurately reflect the manure production rates for that particular animal. For example, the nursery pig has much different manure production rates than a feeder pig. And the manure production rate for a gestating sow has an -- or even lactating sow is much different than it is for a feeder pig; by a factor of one and a half to two.

MR. MEYER: Would you be willing to give me a figure on a percentage -- on a percentage of a whole, would you believe would be a reasonable percentage towards pollution control and environmental control?

MR. FELDMANN: I'm not sure that I feel qualified to give you a number like that. The downfall that I see in -- or the problem that I see is not creating an equal playing field in terms of pollution control regulations among the states and among the counties, but particularly among states. And my main



1           fear is that if Illinois has significantly stricter rules  
2           or regulations, that we have to follow in this comparison  
3           with other states in the event that we're -- that the  
4           cost of facilities in this state is significantly  
5           different than facilities in other states, Illinois risks  
6           the chance of losing its industry or much of the pork  
7           industry that's here.

8  
9                         MR. GIRARD: I have a question on your  
10           testimony also. You testified that prefilling a lagoon  
11           prior to use will eliminate 90 percent of the lagoon  
12           startup odor problems. Is that your testimony based on  
13           any particular scientific studies, or management  
14           guidebooks, or is that based on your consulting  
15           experience?

16  
17                        MR. FELDMANN: That's mainly based on my  
18           consulting and experience, and what I remember from  
19           references cited in different literature, but mainly on  
20           my experience.

21  
22                        MR. GIRARD: Maninly on your experience. If  
23           you can recall any of the references in the next few days  
24           and have a chance to file a final comment with the board

1 before the expiration of the public comment period next  
2 Friday, that will be helpful.

3 My second question is also related to that.  
4 You said less frequent loading, in other words, slug  
5 loading of a lagoon, can cause serious odors. Is that  
6 also based on your consulting experience, or can you  
7 point us to any particular paper?

8  
9 MR. FELDMANN: I can point you to many  
10 particular papers. And in fact, I almost think it is  
11 actually referenced in some of the engineering practices,  
12 but it is addressed in Midwest Plan Service 18. I would  
13 think it would be fairly certain that it is also  
14 addressed in USDA-NRCS engineering handbook for animal  
15 facilities as well. Chapter nine, I think it is, which  
16 deals with actual design of animal evasive units.

17  
18 MR. GIRARD: In your experience, what are the  
19 most helpful references for controlling odors?

20  
21 MR. FELDMANN: I would say the ASAE  
22 engineering standards, both the EP403.2 and then the  
23 actual standard on that ASAE has, or the practice that  
24 they have on reducing odors, which is, I think,

1 referenced in the rules and -- I know it's referenced in  
2 title 35, control of manures. Midwest Plan Service 18,  
3 Livestock Waste Facilities Management Facilities Handbook  
4 addresses quite a number of those issues as well.

5 The other thing in terms of actual lagoon  
6 design itself that I feel addresses odors very well is  
7 the Rational Design Standard for Anaerobic Livestock  
8 Lagoons by Clyde Barth. I didn't go into a whole lot of  
9 depth in my testimony about that, but it goes into a lot  
10 of the science behind why lagoons fail, or why they  
11 function properly with very minimal odor.

12

13 MR. GIRARD: I have one final question.  
14 Do any of your clients have structures which are enclosed  
15 and collect methane gas for use?

16

17 MR. FELDMANN: No.

18

19 MR. GIRARD: Thank you.

20

21 MS. LOZUK-LAWLESS: Actually, Mr. Feldmann,  
22 you had referenced some table, an attached table by Clyde  
23 Barth, and that was not attached. Actually, do you have  
24 those to admit as an exhibit?

1                   MR. FELDMANN: Yes, I must have faxed in my  
2 testimony, and for some reason that didn't get in the  
3 fax. It was attached, I know for sure, with all the  
4 testimony that I mailed to the service list.

5

6                   MS. LOZUK-LAWLESS: Okay. Thank you.

7

8                   MR. FLEMAL: I have an observation. First of  
9 all, we appreciate the attention you paid for these  
10 proposed rules, and appreciate the recommendations that  
11 you made.

12                   As has been the case when we had other  
13 recommendations of this sort, I would ask the proponents  
14 of the Department of Agriculture to look at those in  
15 their final comments to the extent that they feel they  
16 can instruct us -- to advise us on what their perspective  
17 on what Mr. Feldmann has said.

18

19                   MR. MANNING: I'm suggesting that the  
20 department need to have the authority to evaluate the use  
21 of alternative systems with lagoon solid separation. You  
22 also say the department has not improved the use of these  
23 systems. I guess what I'm not following here is what  
24 approval, first, you believe there is for the Department

1 of Agriculture to -- I guess I wasn't aware that they had  
2 to seek approval for an alternative lagoon system.  
3 Certainly, if a producer wants to use an alternative  
4 lagoon system, they can do so and don't have to seek the  
5 department's approval. I'm not aware of where you're  
6 coming from; why the department wouldn't approve  
7 something?

8  
9 MR. FELDMANN: Let me explain it a little bit  
10 in more detail. Specific to a couple of my clients in  
11 the past few months, these are systems that are used in  
12 conjunction with lagoons. In other words, main example  
13 would be a concrete settling tank that waste comes from  
14 the confinement facilities runs into that tank and  
15 settles out approximately 40 to 60 percent of the solids  
16 and volatile solids in that waste before it goes to the  
17 lagoon.

18 So in other words, the lagoon is not -- is  
19 not actually treating that 40 to 60 percent of the  
20 volatile solids in that respect. What has been a typical  
21 practice in our industry, which is detailed in the  
22 Midwest Plan Service 18, is detailed for use of settling  
23 tanks in a paper written by Ted Funk, a cooperative  
24 education standard, that lagoon size, the treatment size

1           and sludge accumulation in this lagoon can be reduced  
2           proportionately with the amount of solids -- with the  
3           solids separation device; in this case, a settling tank.

4                         And to date, the department has told me they  
5           don't feel they have the authority to say that the  
6           loading rate on the lagoon has been reduced, and thus you  
7           can reduce the size of the lagoon proportionately in  
8           those volumes.

9  
10                        MS. MANNING: I think I understand the issue  
11           now.

12  
13                        MR. FELDMANN: Sorry.

14  
15                        MS. MANNING: That's okay. I just wanted to  
16           understand the issue.

17  
18                        MS. LOZUK-LAWLESS: Mr. Meyer.

19  
20                        MR. MEYER: I wonder if you care to comment  
21           on methane recovery and bio-gas recovering?

22  
23                        MR. FELDMANN: I can say a few things. I  
24           think there needs to be much more work done with methane

1 recovery and bio-gas recovery, in terms of finding a way  
2 to make it economically feasible. I do see that there's  
3 probably a certain percentage of producers, particularly  
4 large facilities, that produce enough methane and bio-gas  
5 in an area that can be captured to start to make it  
6 economically feasible. In fact, there's a program, I  
7 don't know if it's come up in testimony, called the AG  
8 Start program, which is, I believe, is in conjunction  
9 with the EPA along those lines.

10

11 MR. MEYER: Do you know of any methane  
12 recovery plans?

13

14 MR. FELDMANN: Not here in the state of  
15 Illinois.

16

17 MR. MEYER: Other locations?

18

19 MR. FELDMANN: There's -- I know of one  
20 successful operation that I've heard of in a magazine in  
21 Pennsylvania, and there are a few others around the  
22 country as well.

23

24 MR. MEYER: Do you think you could provide us

1 with a list of facilities? If you can, we'd appreciate  
2 it.

3

4 MR. FELDMANN: Sure. There's a particular  
5 article I remember in one of the magazines that listed a  
6 couple of facilities that used methane production that I  
7 could look up.

8

9 MS. LOZUK-LAWLESS: Yes. There's a question  
10 in the back. Could you come forward?

11

12 MS. BARNES: My name is Anna Barnes, and I  
13 just wanted to ask you, relative to the senior board  
14 members line of questioning, how -- what is the typical  
15 life span of that farrowing ingrate with the water and  
16 the electricity?

17

18 MR. FELDMANN: The farrowing crate, probably  
19 10 to 15 years. So essentially, we're talking about 1.4  
20 million dollars worth of farrowing crates over 20 years.  
21 And we're talking about a \$20,000 liner or a \$20,000  
22 engineering cost over the same period.

23

24 MS. BARNES: And isn't it a fact that one of



1 the persons who has done the most work with methane  
2 recovery, he never intended these systems to be used in a  
3 large scale, and that they were mostly developed for  
4 power supplies or irregularities at best?

5

6 MR. FELDMANN: I'm not sure who you're  
7 referring to there.

8

9 MS. BARNES: Okay.

10

11 MS. LOZUK-LAWLESS: Thank you, Ms. Barnes.

12

13 MS. RACE: On the same line as the farrowing  
14 crates, what is the average lifespan of the structure  
15 itself when animal waste starts eating away at it?

16

17 MR. FELDMANN: That's highly depending on the  
18 quality of the structure and the materials used in the  
19 facility. Unfortunately, there are a lot of facilities  
20 being constructed today that may have 15 years. Older  
21 clients that have remodeling of those facilities that  
22 have lasted, that are in existence in good operation  
23 today after 25 or 30 years.

24

1 MS. RACE: What would you look at to help  
2 assess whether these were constructed using high quality  
3 or low quality materials?  
4

5 MR. FELDMANN: The actual type of materials  
6 and how they were installed. For example, the use of  
7 treated lumber, the use of high strength quality -- good  
8 quality concrete, the use of some good plastics. I'd use  
9 polyethylene instead of steels, metals, that sort of  
10 thing.  
11

12 MS. LOZUK-LAWLESS: Any further questions?  
13

14 MR. HARRINGTON: In your testimony, you  
15 represented that all lagoons have a one inch liner, is  
16 that correct?  
17

18 MR. FELDMANN: One foot liner.  
19

20 MR. HARRINGTON: One foot liner. And how  
21 much would this add to the cost of the lagoon?  
22

23 MR. FELDMANN: Well, let's take the typical  
24 example of the 800 handling facility. For example,

1           21,000 head finisher buildings, I would estimate that  
2           cost be only \$1,000 out of \$25,000.

3

4                   MR. HARRINGTON: What is this liner made off?

5

6                   MR. FELDMANN: Recompact clay. This is a  
7           liner that is left to be built by the contract, according  
8           to the specifications put forth by an engineer but not a  
9           liner that is necessarily extensively sampled and tested  
10          and sent back to a lab for engineering analysis, but a  
11          liner that would be used in basic field technology, such  
12          as monitoring moisture content of the soil as it's  
13          recompact and maybe a few limited density measurements  
14          as well.

15

16                   MR. HARRINGTON: Does this assume the native  
17          availability of native soil suitable for the liner?

18

19                   MR. FELDMANN: Yes, the \$1,000 figure,  
20          \$1,500 figure, I would suggest does assume that  
21          availability.

22

23                   MR. HARRINGTON: Would this be an engineered  
24          design?

1 MR. FELDMANN: Yes.

2

3 MR. HARRINGTON: Would a --

4

5 MR. FELDMANN: Not a certified design, but a  
6 design using some common specifications.

7

8 MR. HARRINGTON: Not a design that would be  
9 suitable for certification?

10

11 MR. FELDMANN: It could be. I guess I was  
12 looking at a liner that cost \$1,000 - \$1,500, and maybe  
13 it's only in my mind and seems pointless to spend three  
14 or four thousand dollars in the engineering certification  
15 cost for a liner. I just added it in as an extra  
16 precaution to facilities.

17

18 MR. HARRINGTON: Are you a registered  
19 engineer in Illinois?

20

21 MR. FELDMANN: No, I'm an engineer intern at  
22 this point.

23

24 MR. HARRINGTON: Thank you. I have no

1 further questions.

2

3 MS. LOZUK-LAWLESS: Thank you, Mr.  
4 Harrington.

5 I'd like to mark Mr. Feldmann's pre-filed  
6 testimony as Exhibit Number 68.

7 Are there any further questions of Mr.  
8 Feldmann?

9 We'll go ahead and go forward with Mr. Gray's  
10 testimony, and then we'll break for lunch. Okay, Mr.  
11 Gray.

12

13 MR. GRAY: First of all, I'd like to thank  
14 you very much for allowing me the opportunity to come  
15 here and speak for a few minutes, I appreciate that. My  
16 presentation will be one of information for you, maybe  
17 more so than one of technicalities that we've heard so  
18 much of this morning.

19 Anyway, my name is Bill Gray, and my family  
20 and I are lifelong residence of the Hamilton in Hancock  
21 County, western Illinois. Graduated from the University  
22 of Illinois with a degree in Animal Science, and my  
23 family and I have been involved in farming and pork  
24 production for 44 years. I'm also one of seven pork

1 producers who have come together to form Little Timber, a  
2 name, to my understanding, you might have heard mentioned  
3 before in one of the other hearings, which is a  
4 cooperative or networking arrangement to farrow and  
5 produce weaned pigs to be finished on our own individual  
6 farms. We see this as a opportunity to sustain ourselves  
7 and our family farms in the future by pooling our efforts  
8 and resources into an adequately sized farrowing unit  
9 which will be efficient and reproductive, and meet our  
10 needs in the foreseeable future and in the economic  
11 environment that exists today.

12 In addition, this avenue allows us to  
13 surround ourselves with management and technological  
14 expertise that we could not attain or afford on an  
15 individual basis. We see ourselves coming full circle,  
16 if you will, from dependence on each other from 50 years  
17 ago to total independence, back to our need to group back  
18 to attain our goals and meet the needs of our family  
19 today.

20 I think it is important to know that we are  
21 local. We are local. Our farms will continue to vie  
22 from and support the local businesses for the viability  
23 of like Hancock County, Illinois.

24 What happened to us and what is happening to

1 us, we have kept a log of events effecting Little Timber  
2 from the time we acquired the site. This log is quite  
3 extensive and provides us with an accurate record of what  
4 has happened. I won't go through all of this, but I have  
5 some dates that I want to mention to you.

6 First date is August 15th, when a real estate  
7 disclosure statement was signed for negotiate of land  
8 purchase.

9 September 18th, signing of manure agreements,  
10 and also signing the purchase agreement with owners,  
11 making a substantial down payment and receiving immediate  
12 possession of the property at that time.

13 On September the 25th, we received a  
14 commitment of title insurance, and a letter scheduling  
15 September 28th at noon for our closing.

16 On September 27th, our engineer, Dr. Mack  
17 Schafly, whom I know you've heard from before, did a GPS  
18 matching of all the homes surrounding the area at 7  
19 o'clock in the morning. Meetings were held through the  
20 day to prepare the site. Late that afternoon, an  
21 unoccupied old trailer was pulled onto a small parcel of  
22 land adjacent to our site. The trailer was left there on  
23 wheels, back away from the road, unoccupied, unblocked  
24 until November the 11th, when it was moved closer to the

1 road and straw was stacked around it. This was deemed an  
2 intertiff by us as a malicious attempt to stop Little  
3 Timber from developing this sow unit on this site.

4 The thing that motivated me, Bill Gray, to  
5 come before you for a brief period of time today, is that  
6 I believe that the permanent rules need and should  
7 prevent this situation from occurring at any future  
8 circumstance. If we of Little Timber had done this  
9 project in an irresponsible and unprepared manner, I  
10 would say there might have been complaints, but this was  
11 not the case. We had a perfect site, setbacks were  
12 excellent, we surrounded ourselves with competent  
13 resources and management people, and have done everything  
14 in our power to meet or exceed the rules put forth in the  
15 Livestock Management Facilities Act and in the emergency  
16 rules also.

17 I would urge you to move forward and adopt  
18 the rules you have proposed. If they need to be amended,  
19 added to or taken from, so be it. At least we'll have  
20 absolute with which to work, and reasonable requirements  
21 with which we're able to deal.

22 33 years ago this Fall, my father and I  
23 constructed the first slaughtered floor confinement floor  
24 building in Hancock County. It seemed kind of far out



1 and definitely out of ordinary at that period of time,  
2 but it was the way of the future. We were open to the  
3 change then, just as we are open to the change now.

4 In closing, I would say that the only thing  
5 made about our group is our commitment to our families,  
6 our communities, our farms and the pork industry that has  
7 been so good to so many of us for so many year. Thank  
8 you very much for your time.

9  
10 MS. LOZUK-LAWLESS: Thank you. Is there any  
11 questions for Mr. Gray? Yes, ma'am, will you come  
12 forward?

13  
14 MS. BARNES: I don't know if he still is  
15 here, but it would seem that some of the current  
16 agricultural zoning could, if it was applied for early,  
17 could have protected you from this.

18  
19 MR. GRAY: We have no zoning in Hancock  
20 County.

21  
22 MS. BARNES: No, but there's a state program  
23 for agricultural areas.

24

1                   MR. GRAY: Yeah, but to my knowledge, that --  
2                   I'm familiar with that, what you're talking about, but to  
3                   my knowledge that is not amicable in our area, has never  
4                   been accepted or put forth by our county government.

5

6                   MS. BARNES: Thank you.

7

8                   MS. LOZUK-LAWLESS: Any further questions?

9

10                  MR. LEONARD: My name is Jack Leonard. Do  
11                  you or your family, or any of the stockholders, live on  
12                  property of this farm?

13

14                  MR. GRAY: No, we do not.

15

16                  MR. LEONARD: Is it -- how do you feel about  
17                  the Department of Natural Resources recommendation that  
18                  setbacks should be to the borderline of the park, is that  
19                  a fair application?

20

21                  MR. GRAY: I think that's a fair application.  
22                  And as I said before in this, you know, we have no  
23                  setback problems prior to this situation that I explained  
24                  to you.

1                   MR. LEONARD: But setback, according to  
2 definition is to use the neighbors property, is that in  
3 your mind fair, if you were on the other side of that  
4 table?

5

6                   MR. GRAY: Setback is --

7

8                   MR. LEONARD: Is the location of the  
9 residence on the property using the neighbor's property  
10 as part of that setback? You don't own the land for the  
11 setback, correct?

12

13                   MR. GRAY: Yes, that's correct, we don't own  
14 the land for the setback. That's right.

15

16                   MR. LEONARD: So you feel that your  
17 production -- you should have the right to put up a  
18 facility that deprives a property owner of full use of  
19 his land?

20

21                   MR. GRAY: Well in this particular case that  
22 we were talking about, we would not have been depriving  
23 the property owner of anything, because there was no  
24 problem prior to this trailer coming into existence. It

1           wasn't even there.

2

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          MR. LEONARD: But you feel that if you built the facility, then if he, at some future time, that he wished to use the land that he owns within that area of the setback, he should be deprived of the use of that land for residential purposes?

          MR. GRAY: In an agricultural area, if we were established and there first, yes, I feel that that definitely would have to be taken into consideration at that time, because I feel my protection is just as important as his would be in that circumstance, sir.

          MR. LEONARD: Your protection relates to your land. His protection --

          MR. GRAY: Relates to his land.

          MR. LEONARD: Except it doesn't, because you want to use part of it.

          MR. GRAY: I'm using it for setback, and it's a fairly intangible thing. Setback is just being far

1 away from something. I'm not gaining anything from his  
2 land.

3

4 MR. LEONARD: Except he's getting a  
5 restriction on the use of his property. Thank you.

6

7 MS. LOZUK-LAWLESS: Any other questions?

8

9 MR. EMMETT: Mr. Gray, it's my  
10 understanding -- my name is Bill Emmett. Mr. Gray, it's  
11 my understanding that you received two letters from the  
12 EPA referencing -- I'm not sure that it was referencing  
13 that or other siting problems, could you elaborate on  
14 that?

15

16 MR. GRAY: We have referenced that, but in  
17 what respect do you want me to respond to those? We've  
18 not been cited.

19

20 MR. EMMETT: No. Did they not request -- I  
21 may be mistaken, if so, I would like to know. Did they  
22 not ask you not to build because -- I was under the  
23 impression it was a siting problem, but I wasn't sure  
24 what the siting problem was.

1                   MR. GRAY: This was the siting problem. And  
2                   at some point in time, I guess somebody is going to have  
3                   to decide who was there first. The letter that you might  
4                   be referring to, was a letter that we were told was one  
5                   that was sent out as a standard procedure as a result of  
6                   any complaint or inquiry, so far as the circumstances of  
7                   ours was existing, and that was the first. There wasn't  
8                   anything about the particular trailer or anything like  
9                   that.

10

11                   MS. LOZUK-LAWLESS: Thank you, Mr. Gray.

12                   Right now, I would like -- oh, sorry, board  
13                   member Meyer.

14

15                   MR. MEYER: Am I correct in stating that you  
16                   included in your setback area, property you didn't own?

17

18                   MR. GRAY: Could you help me with the  
19                   question again, please.

20

21                   MR. MEYER: In the setback area, you included  
22                   property that you did not own established in the setback?

23

24                   MR. GRAY: In that instance, there's property

1           that we do not own. In that setback instance, that's  
2           correct. Yeah.

3

4                       MR. MEYER: I have no further questions.

5

6                       MS. LOZUK-LAWLESS: Thank you. What we're  
7           going to do is take a break. Off the record.

8

9                               (At this time an off-the-record  
10                              discussion was had.)

11                             (At this time a break was taken.)

12

13                       MS. LOZUK-LAWLESS: We're now going to  
14           continue with the testimony of the individuals who are  
15           currently up at the table, and those will be in the  
16           following order: We'll be taking Jack Leonard, Judy  
17           Race, Bill Emmett, David Thompson and Janet Fritz. And  
18           if you could swear in Mr. Leonard.

19

20                             (Witness sworn.)

21

22                       MS. LOZUK-LAWLESS: Mr. Leonard, you may  
23           begin.

24

1                   MR. LEONARD: My name is Jack Leonard, and I  
2                   am not employed by any government agency. I do not hold  
3                   any elected public office. Other than being one of the  
4                   many citizens who may be adversely effected by a confined  
5                   animal feeding operation which is improperly designed,  
6                   managed or regulated, neither I or any member of my  
7                   immediate or extended family will be economically  
8                   effected by the regulations resulting from the Livestock  
9                   Management Facilities Act. My major qualification for  
10                  submitting testimony is the knowledge gained from Mort  
11                  the handyman.

12                  Mort was my uncle's handyman and was always  
13                  the one my uncle would hire for a building project, until  
14                  he decided to hire one of those state of the art builders  
15                  to build a barn.

16                  Almost immediately, Leo, my uncle, saw there  
17                  were problems. Construction seemed awfully slow. And  
18                  although he knew nothing about carpentry, it seemed the  
19                  end of the boards were mangled and full of bent nails.  
20                  He told the builder the problem, and the builder called  
21                  in all kinds of experts to solve it.

22                  The hammer expert testified on all aspects of  
23                  the hammer. An expert on fasteners gave a 10 page  
24                  dissertation on the quality of the nails. Lumber experts



1 wrote about everything from the direction of the grain,  
2 to its moisture content. An associate of the builder  
3 even suggested that they use sledge hammers, as he had a  
4 survey that the railroad bent very few nails.

5 My uncle so confused, he told the builder to  
6 stop working and for Mort to cleanup the mess while he  
7 took a vacation to read all these reports.

8 When he came back and saw Mort putting a  
9 final coat of paint on a new barn, he asked Mort if the  
10 experts were wrong, and if they were not, how did he get  
11 the barn finished.

12 Mort said well, the experts weren't wrong and  
13 it was easy for me, as I always put the pointed part of  
14 the nail in towards the wood.

15 In like manner, much of the submitted  
16 testimony ignores the problem. The value of all  
17 testimony, including this meager effort, has to be  
18 weighed considering the bias of the source, its technical  
19 content, but most of all, its relevance to the creation  
20 of rules that will control the environmental problems  
21 posed by large confined animal feeding operations within  
22 the parameters of the Livestock Facilities Management  
23 Act.

24 This admonition is not a reflection on

1           Pollution Control Board, but rather on the tendency of  
2           elected public officials to respond to agricultural power  
3           groups and their testimony. I urge these officials to  
4           support the final rules as recommended by the Pollution  
5           Control Board.

6                         On behalf of the many common citizens who  
7           often feel their voices are not heard, I'd like to  
8           express my appreciation for this opportunity to comment  
9           on this rule making, and to applaud the Pollution Control  
10          Board for scheduling these hearings at multiple locations  
11          throughout the state.

12                        There are obvious limitations in the  
13          Livestock Management Facilities Act, and there seems  
14          little purpose in urging regulations that do not have  
15          some relation to the provisions of the act. However,  
16          every effort must be made to flush out those regulations  
17          that will improve the environmental protection or  
18          enforcement of that protection.

19                        An integral part of any regulation are those  
20          provisions that provide revenue to support the  
21          administration of the rules. Certain fees; for example,  
22          lagoon permit and certified livestock management  
23          certificates, are established, but the act necessitates  
24          inspections and training. The cost of this activity

1 should be charged to those receiving the services and not  
2 supported by general Department of Agriculture funding.

3 In addition, the act expressions a particular  
4 concern that financial responsibility and closure be  
5 considered in issuing permits. The very fact that an  
6 applicant has chosen a type of business organization that  
7 limits liability, corporation limits his liability,  
8 should automatically require that the applicant pay a fee  
9 per animal, sufficient to properly close the lagoon and  
10 confinement buildings.

11 The act specifically mentions the need to  
12 control the odor problems resulting from manure  
13 application. The board will go a long way in complying  
14 with this stipulation by forbidding the open air power  
15 spraying of sewage and requiring one of the methods of  
16 injection. Such provision would also reduce the amount  
17 of gas liberated by spraying and reduce surface runoff of  
18 sewage into the waterways of the state of Illinois.

19 The legislature has listed maximum fines for  
20 a number of violations. It is logical to assume that the  
21 purpose of the fine is to encourage cooperation. It is  
22 obvious that there will be situations where risking a  
23 fine is less expensive than correcting a problem,  
24 particularly where the history of enforcement in 15

1 states, including Illinois, is the result of a  
2 complaint. Each day a violation is allowed to continue  
3 should be considered a separate offense.

4 The act recognizes the importance of proper  
5 nutrient loading, and provides that the agronomic  
6 nitrogen rate be used in determining the amount of field  
7 application. However, its specific mention of phosphorus  
8 establishes the need to avoid overloading of other  
9 elements. As such, it would be in keeping with the act,  
10 to require yearly soil testing and forbidding the  
11 application of any waste when soil analysis shows a  
12 sufficient presence of phosphorus, or potassium, or a  
13 buildup of zinc or copper.

14 Since a lagoon is only part of a waste  
15 system, and the system relies on the presence of  
16 sufficient land for waste distribution, the regulations  
17 should reflect this reality and should require that the  
18 applicant for a lagoon permit show that he either owns  
19 sufficient land for disposal or has a contract for the  
20 spreading of waste on land owned by others. In either  
21 case, the deed for the land must reflect this  
22 obligation.

23 It is further suggested that the board  
24 request a copy of, "A Review of State Environmental

1 Regulatory Enforcement Actions" produced by the National  
2 Pork Producers Council in cooperation with the National  
3 Pork Board, which was created in 1996.

4 You'll find that its recommendation on land  
5 applications is in keeping with much of my testimony, and  
6 that it recognizes the presence of diseases causing  
7 organisms in hog waste that apparently has little  
8 importance to Clinton Mudgett of the Illinois Department  
9 of Health, who also seems unaware of the Vector Control  
10 Act that would be applicable to the proliferation of  
11 files at these facilities.

12 Thank you for this opportunity to present  
13 this testimony.

14  
15 MS. LOZUK-LAWLESS: Thank you. Is there any  
16 questions for Mr. Leonard in the audience? Any questions  
17 from anyone at the board?

18  
19 MS. MANNING: What was this document to which  
20 you were referring?

21  
22 MR. LEONARD: It's the National Pork  
23 Producers Council in cooperation with the National Pork  
24 Board, and it's called, "Review of State Environmental

1 Regulatory Enforcement Actions." It includes the actions  
2 for a two year period of time and 15 states, and does a  
3 review of what this group feels is important in  
4 regulations. And they are quite specific about the fact  
5 that sufficient land should be available for waste  
6 application, and the application should be applied.  
7 They're less ambiguous about it than their own law.

8

9 MS. MANNING: Thank you.

10

11 MS. LOZUK-LAWLESS: Thank you very much, Mr.  
12 Leonard.

13

We'll now continue with Ms. Race.

14

15 MS. RACE: Thank you very much for this  
16 public comment period, and I also want to thank you for  
17 your accommodations.

18

19 Members of the Pollution Control Board, my  
20 name is Judy Race, I have a Bachelor of Science Degree in  
21 nursing from Illinois Wesleyan University. Currently,  
22 I'm employed in several nursing capacities; I am a  
23 clinical nursing instructor, and continue to practice in  
24 cardiovascular and surgical intense care unit in a large  
medical center, serve on the volunteer rescue team in

1 Williamsfield, Illinois.

2 As a woman with a young family, who is going  
3 to be directly impacted by the plan of a construction of  
4 a large confinement hog operation near our home, I wish  
5 to submit my finding of health hazards caused by large  
6 animal confinement operations. I am submitting these  
7 findings as a response to testimony before the Pollution  
8 Control Board by the Illinois Department of Public  
9 Health, Mr. Clinton Mudgett. Mr. Mudgett states that the  
10 new rules provide adequate and reasonable health  
11 safeguards; I disagree. He also states that there's very  
12 little research with regard to adverse health effects as  
13 it relates to odors and none that really associates  
14 physical illness with exposure to odors.

15 Initially, scientific research was difficult  
16 to find; however, new research is becoming available at  
17 an increasingly rapid pace. The research that I have  
18 found clearly demonstrates that large scale animal  
19 confinements do cause physical and psychological  
20 dysfunction. I urge the Pollution Control Board to  
21 request that the Department of Public Health conduct a  
22 more extensive review of the literature.

23 I'm deeply concerned that within the appeals  
24 testimony of Dr. Julian Dire, Assistant Director of

1 Public Health as quoted as having found no correlation of  
2 proximity to hog confinement operations and transmission  
3 of any infectious agent. This may be due to the fact  
4 that the signs and symptoms caused by most of the  
5 diseases known to be transmittable seem to be a fluke.  
6 The general population is not likely to seek medical  
7 attention for flu like symptoms; therefore, I believe  
8 there will be a probability that confinement induced  
9 health will be undocumented and misdiagnosed.

10 This act makes a distinction between farm and  
11 non-farm residences. Could the board please explain the  
12 differences of human anatomy and requirements of healthy  
13 living between the subclassifications of humans. From  
14 the definition of impermeable, not permitting significant  
15 passage to a manure lagoon design specification. The  
16 Livestock Management Facility Act gives preferential  
17 treatment to livestock producer.

18 Earlier before this board, Mr. Englebart  
19 testified on behalf of the Illinois Farm Bureau, Illinois  
20 Pork Producers and the Illinois Beef Association, and in  
21 his testimony he reminds the board, technologically  
22 feasible and economically feasible. They do add costs,  
23 but I feel the burden of the cost should rest on the  
24 confinement producer. The state of Illinois and tax



1           payers are under no obligation to subsidize polluters so  
2           they can form a larger profit. Mr. Englebart, says to  
3           trust us. I would like to ask Mr. Englebart, when was  
4           the last time he gambled his family's health and quality  
5           of life to someone that said trust me.

6                         Jeff and Julie Henson, along with their six  
7           children continue to suffer from headaches, nausea and  
8           vomiting, fatigue, aching joints, backaches and more.  
9           All of which Julie Jenson proved were due to large  
10          hydrogen sulfide emissions from a neighboring hog  
11          confinement. I conclude, I would like to get that into  
12          the record. And speaking by phone with her last week,  
13          she confirmed their ongoing symptoms and added, these  
14          days it takes a much longer period of time away from the  
15          odors before her family members begin to recover.  
16          Previously, Julie Jenson testified before the state of  
17          Illinois, and I'm including copies of her testimony.

18                         Researchers study the unhealthy impact of  
19          hydrogen sulfide on pulmonary function and birth defects,  
20          including spontaneous abortion. He has found absorption  
21          into the fatty tissues and that explains why some people  
22          say they can smell odor on their breath long after they  
23          leave the farm. She further stated that people living  
24          near hog confinements experience more tension, more

1 depression, less vigor, more fatigue and more confusion  
2 than their counterparts who weren't exposed to hog  
3 confinement. American Lung Association says hog  
4 confinement workers experience one or more symptoms from  
5 respiratory illness. They also found that 58 experience  
6 chronic bronchitis; this is three times the rate for  
7 non-confinement farmers. The 1987 Illinois Revised  
8 Statutes, chapter 111 and a half, public health and  
9 safety, title two, air pollution section 1009.5  
10 legislative findings on toxic air contaminant regulation  
11 reads, the board has promulgated a list of toxic air  
12 contaminants. The list published under the subsections,  
13 lewd air contaminants, which may cause or significantly  
14 contribute to an increase in mortality or increase in  
15 serious or irreversible or incapacitating irreversible  
16 illness, or may pose a significant threat to human health  
17 or the environment.

18 I am submitting several documents that speak  
19 to the health effects of hydrogen sulfide. Without  
20 question, this gas upon decomposing manure falls within  
21 the section of this law. I would urge the Illinois  
22 Pollution Control Board to set limits regarding safe  
23 levels of hydrogen sulfide, like in the state of  
24 Minnesota. I included studies for the state of Missouri

1 as per chapter 111 and a half, public health, 1987.  
2 Illinois revised statutes 1025b-3, Illinois Toxic  
3 Chemical Inventory states, EPA maintains the chemical  
4 toxic inventory on chemicals released in the environment  
5 and where they are reduced. IEPA publishes an annual  
6 toxic report to the county and public health departments.  
7 EPA reviews the report under section 31 of the Federal  
8 Emergency Planning and Community Right to Know Act of  
9 1986, which is 42 USCA section 111023.

10 The EPA holds public hearings and submits to  
11 the Governor a list of toxic chemical facilities not  
12 covered in the list that may cause a threat to the  
13 public. I would urge Governor Edgar to petition USDAE to  
14 include the chemical hydrogen sulfide, many well  
15 documented diseases, harmful gases, heavy metal and  
16 irritating substances that are released in confinement.  
17 I am respectfully submitting my findings, including  
18 reviewed scientific research interviews and findings from  
19 other federal sources.

20 And in conclusion, I thank the board for  
21 allowing me to present my testimony. I ask that the  
22 Pollution Control Board make themselves aware of the  
23 problems. Other states found that none of their  
24 solutions came cheaply. Thank you very much.

1 MS. LOZUK-LAWLESS: Thank you, Ms. Race.

2

3 MS. RACE: I would have included this impact,  
4 I would have admitted it, but you already have it. This  
5 has been quite a source for me.

6

7 MS. LOZUK-LAWLESS: Okay. Let the record  
8 reflect that the document title, Measurement of  
9 Environmental Odors, Commercial Sign Operation has been  
10 marked as Exhibit Number 69 and entered into the record.

11 Let the record reflect that document titled,  
12 The Effects of Environmental Odors Emanating From  
13 Commercial Swine On the Mood of the Residents, has been  
14 marked as Exhibit Number 70.

15 The document which has as the first line for  
16 the record, my name is Julie Janson and I live in South  
17 Olympia, Minnesota, has been marked as Exhibit number 71.

18 The document titled, Analysis of Hydrogen  
19 Sulfide Monitoring, May 1996, Minnesota Department of  
20 Health, July 16th, 1996, has been marked as Exhibit  
21 Number 72.

22 The document from Minnesota Department of  
23 Public Health with the name Fred Adams at the top, August  
24 16th of 1996, has been docketed as Exhibit number 73.

1                   The document entitled, Hydrogen Sulfide from  
2                   the AGSDR General Information has been marked as Exhibit  
3                   Number 74.

4                   The document entitled, Swine Dust Causes  
5                   Intense Airways Inflammation in Healthy Subjects, has  
6                   been marked as Exhibit Number 75.

7                   And finally, the document entitled, Keeping  
8                   Them Off the Farm, from the Agriculture Research  
9                   Magazine, dated February 1996, has been marked as Exhibit  
10                  Number 76.

11                  And all of those documents are hereby  
12                  admitted into the record. Thank you, Ms. Race.

13                  Are there any questions for Ms. Race from  
14                  anybody in the audience? Yes, could you come forward?

15  
16                  MS. MORCOPA: I don't have a question. I  
17                  want to comment, I have oodles of material from North  
18                  Carolina from my sister about hogs, and they also  
19                  mentioned the nausea and everything that effects people's  
20                  health. So I'm glad they --

21  
22                  MS. RACE: Can I ask you how often you  
23                  experience symptoms?

24

1 MS. MORCOPA: I don't know.

2

3 MS. LOZUK-LAWLESS: She's going to bring that  
4 up when she testifies later.

5 Any other questions of Ms. Race? Yes, Mr.  
6 Mudgett.

7

8 MR. MUDGETT: Clinton Mudgett, Illinois  
9 Department of Public Health. In your testimony, Ms.  
10 Race, you indicated there's research that shows physical  
11 health symptoms associated with these types of  
12 operations. Can you give us any citations for those  
13 physical symptom studies?

14

15 MS. RACE: Everything I used was five years  
16 or present. What is your most recent citations? What  
17 are you working with?

18

19 MR. MUDGETT: We've done a computer data base  
20 search of all data up to 1996, so I'm interested in what  
21 you may have that associates disease or physical symptoms  
22 and research study, or was that part of what you  
23 submitted?

24

1 MS. RACE: That's what I submitted. In  
2 addition, on February 22nd, I'll be traveling to  
3 Minnesota, to go to a Clean Water Act Symposium and I  
4 hope to obtain the most current information. I didn't  
5 know if you plan to attend.

6  
7 MR. MUDGETT: Also, you referenced Ms.  
8 Jenson's studies in Minnesota?

9  
10 MS. RACE: Yes.

11  
12 MR. MUDGETT: With regard to hydrogen  
13 sulfide, do you know where she tested the hydrogen  
14 sulfide levels?

15  
16 MS. RACE: Not only around her county but  
17 others. Not only did they find hydrogen sulfide from hog  
18 confinements but from --

19  
20 MR. MUDGETT: Are you aware those tests --  
21 the ones I reviewed were all taken at the lagoon. Do you  
22 know if any of the hydrogen sulfide testing was done in  
23 an area where citizens could be exposed?

24

1 MS. RACE: Excuse me?

2

3 MR. MUDGETT: Near as I can tell, all the  
4 tests that were done were all in the vicinity of the  
5 lagoon where you would expect high hydrogen sulfide  
6 levels. I'm asking, did Ms. Jenson do any testing at the  
7 perimeter of the property and that sort of thing?

8

9 MS. RACE: Public property. They didn't go  
10 onto the lagoon, according to what I read. They stayed  
11 on the public perimeter.

12

13 MR. MUDGETT: Okay. You have also indicated  
14 that considerable research has been done on the health  
15 effects of hydrogen sulfide on the workers and livestock  
16 confinement operations. Do you have any information that  
17 indicates any adverse health effects due to hydrogen  
18 sulfide in non-workers?

19

20 MS. RACE: I believe Ms. Jenson's.

21

22 MR. MUDGETT: Okay. Thank you.

23

24 MS. LOZUK-LAWLESS: Thank you, Mr. Mudgett.



1                   Yes, come forward. For the record, this is  
2 Ms. Barnes.

3                   MS. BARNES: There are examples of people who  
4 have been exposed to hydrogen sulfide right here down --

5  
6                   MS. LOZUK-LAWLESS: You're really testifying.  
7 If you're not asking her a question --

8  
9                   MS. BARNES: If the people want to find that  
10 out, they can do interviews of the employees and their  
11 symptoms as well.

12  
13                   MS. LOZUK-LAWLESS: Thank you. You might  
14 want to talk to Mr. Mudgett afterwards.

15  
16                   MS. RACE: I contacted the community nurse  
17 who was doing research in the Jenson area. One of the  
18 problems she has is such a rural community, there's not  
19 enough numbers to extrapolate usable data for one in a  
20 year because there's just not enough information on the  
21 data, so that's one problems she's running into.

22  
23                   MS. LOZUK-LAWLESS: Any other questions?

24                   Yes, Mr. Mudgett.

1                   MR. MUDGETT: I would like to clarify one  
2 point. If you review my written testimony, the Public  
3 Health does not dispute the existence of physical  
4 symptoms, in fact we acknowledge that some of the  
5 information that is available clearly shows that maybe  
6 some unscientific surveys have been completed and shows  
7 lots of citizens complain of physical symptoms. Many of  
8 these are also substantiated with physician states. And  
9 again, I indicated that in my written testimony. Those  
10 again, we take seriously and don't dispute the fact that  
11 exposure to odors around these types of facilities can  
12 certainly evoke physical symptoms. But it's another step  
13 to move to the point of finding that scientific studies  
14 have been able to identify that odors have caused either  
15 disease or consistent physical symptoms.

16  
17                   MS. RACE: Are you aware that the people most  
18 at risk are the elderly, the very young and those with  
19 existing pulmonary problems, such as asthma? One of the  
20 reports of North Carolina used a -- observed a child, a 4  
21 year old. Hog confinement started and admissions in the  
22 ER increased significantly following the opening of this  
23 hog confinement. I would say that that would be a  
24 concern that I would ask the Public Health Department, to

1 protect all those residents who may not be aware of it  
2 something they're breathing could be causing fatigue and,  
3 you know, decreased pulmonary blood.

4

5 MR. MUDGETT: Certainly most are effected by  
6 any environmental input and we're very much aware of  
7 that.

8

9 MS. RACE: And you feel what portion of this  
10 bill is providing adequate -- that these populations  
11 won't be adequately effected?

12

13 MR. MUDGETT: I also indicated in my written  
14 testimony and in Jacksonville, there are setback  
15 requirements. There's language -- I think it is section  
16 25 of the act that requires a limitation of odor control  
17 measures as already required in the EPA regulations. As  
18 the Department of Agriculture has testified, that's  
19 beginning to be a concern in their training for livestock  
20 manager certification. So whether all these are going to  
21 ultimately be adequate or not, I think we're going to  
22 have to give the law and regulations a chance to be used  
23 and to find out.

24

But the truth is, the Livestock Management

1 Facilities Act is very specific on many of these  
2 requirements that pertain to odor control, and the  
3 authority of the advisory rules of the advisory committee  
4 to modify most of that is very limited.

5 But again, I want to make it clear, the  
6 Department of Public Health is not taking the position  
7 that adverse odors cannot give symptoms, that can  
8 certainly be problematic.

9  
10 MS. RACE: One more point/question: Do you  
11 think it valuable to invest in something like a Jerome  
12 Hydrogen Sulfide Detector, and if you start seeing some  
13 adverse health --

14  
15 MR. MUDGETT: We have several meters already.

16  
17 MS. RACE: Are they available? Who gets to  
18 use those?

19  
20 MR. MUDGETT: It's not normally the  
21 responsibility of the Department of Public Health to deal  
22 with outdoor air pollution issues, and I don't know if  
23 the EPA might want to add some comment to this, but the  
24 regulation of air pollutants is the responsibility of the

1 IEPA. We cooperate with the IEPA in different areas.  
2 This one Department of Public Health formally uses its  
3 equipment on indoor air pollution problems. I would  
4 suspect that IEPA has Jerome Meters that can be utilized  
5 for that; if not, we certainly would participate in any  
6 sort of studies that we have the resources to carry out.

7

8 MS. LOZUK-LAWLESS: Thank you, Mr. Mudgett.

9 Any questions of the board?

10 Okay. Thank you very much, both of you.

11 Mr. Emmett, would you like to give your  
12 testimony?

13

14 MR. EMMETT: I'm a farmer from McLean County.

15 I don't have a prepared testimony, I do better winging  
16 it. It is time that we talk about what is happening at  
17 the grassroots level. I'm an ICRP member, stewardship  
18 alliance. I'm also a member of the McLean County Board  
19 and from McLean County. I'm not representing the board.  
20 However, I've been in for 62 years and became an involved  
21 in McLean County, and I've talked about a lot of people  
22 over the last two years in North Carolina, South  
23 Carolina, Texas, Oklahoma, Missouri, Illinois. I was  
24 investigator for many years on the Wilmington Police

1 Department and Chief of Detectives for 10 years and  
2 investigating is what I did. And I decided two years ago  
3 when I became involved in this, that I had to know both  
4 sides of the issue and I wanted to know everything I  
5 could about the issue. And so on our own, my wife and I  
6 have made trips all over the country. We've talked to  
7 people from as far away as Canada on the same issue.  
8 People have worked in these facilities and worked around  
9 these facilities. We've found it's a very common thread  
10 through that there's major problems with regulation. If  
11 we're going to allow factory farms or factory settings  
12 such as this, we need industrial strength regulation, and  
13 I appreciate what is being done by the Pollution Control  
14 Board. I think you would have to work in connection with  
15 the law, and I helped work on that. I was on the  
16 subcommittee. The initial report came out on that  
17 subcommittee, and I think in prior testimony, Bruce St.  
18 John addressed a little bit on how the makeup of that  
19 subcommittee was, so I don't feel a need to get into  
20 that.

21 I was part of the minority. I don't believe  
22 the bill went far enough in many areas. And quite  
23 frankly, setbacks were still using a quarter mile  
24 setback. It was set back in the late 70s, early 80s.

1           And I talked to people from the EPA. That quarter mile  
2           setback was put together for the smaller units that were  
3           prevalent at that time. As I was told, we didn't  
4           conceive what was happening today, the size units we're  
5           having today. I don't know that you can really do  
6           anything about the setbacks. I think they're pretty well  
7           set. However, I think you can do something about the way  
8           setbacks are measured, and I think it was brought out  
9           here a couple times today that why should my property be  
10          the buffer for these large facilities. Why should my  
11          property rights be impinged upon so somebody could put a  
12          large facility next door. Measure from my property line.  
13          The DNA is saying the same thing about our state parks.  
14          They're saying our state parks should not be, and I  
15          absolutely support them wholeheartedly, our parks should  
16          not be the buffer. If we at Dawson Lake, if we measure a  
17          half mile from populated area, and there's a question as  
18          to where we measure from, and for awhile it looked like  
19          we were going to measure from the center of the park.  
20          Well, if that's the case, I could put a facility right on  
21          the -- smack on the border around that park, and that's  
22          going to impinge on the use of that park by people. And  
23          we need to protect our natural resources, but we also  
24          need to protect property rights of people that are living

1 out there.

2 I'm a farmer, I have a farm, why should the  
3 half mile or the quarter mile -- in our case, be a  
4 quarter mile, why should that quarter mile be measured  
5 from my home. If we measure from my home, they can build  
6 right next door to me, right up on my property line and  
7 there's nothing I could do about it. That quarter mile  
8 should be measured from my property line to make it an  
9 actual buffer, to make it an actual setback, because it  
10 isn't a setback unless it's measured from my property  
11 line. So I would like to see if the Pollution Control  
12 Board can address that.

13 Site development, we have a problem. And  
14 with site development, I think Pollution Control Board  
15 might be able to do some work on our siting. We have a  
16 problem with siting. We have -- Cass County, we have a  
17 facility being built on sandy soil; bad place to build  
18 it. It's still being built there. We struck ground  
19 water at a very low level at five or 10 feet. It  
20 shouldn't be built there, but we're building there any  
21 way. Kankakee County, same problem. Green County built  
22 on car soil. I don't know if any of you have visited  
23 that but I have, and a lot of our folks have been. It's  
24 built on car soil. We should not be building this type



1 of facility on car soil. Under our citing in the Manure  
2 or Livestock Facilities Management Act, we can't prevent  
3 them from being there.

4 A question on Little Timber: I asked the  
5 question about what was happening down there. It's my  
6 understanding that the EPA has sent one or two letters; I  
7 thought it was two and I may be wrong, but on some siting  
8 problems down there. But my understanding is Little  
9 Timber, they continue to build at Little Timber and  
10 ignore the letter they did get from the EPA. Now I may  
11 not have all those facts straight on Little Timber, but I  
12 think it needs to be looked at. I think it points out  
13 that there are some definite siting problems that we have  
14 with this act, and I would hope that the Pollution  
15 Control Board can take a look and possibly tidy up some  
16 of the definitions.

17 Especially, I asked over two years ago for a  
18 definition of a public place; now that doesn't seem like  
19 a real hard question. I had meetings with the EPA. I  
20 had meetings with the Illinois Environmental Protection  
21 Agency, and I was told over two years ago that I would  
22 get a decision on that, and we just -- now I've just been  
23 told within the last couple of weeks, people from DNR  
24 have told me a decision finally came out on that

1 definition. And I don't really see that that was such a  
2 difficult question to ask, but it points out the problem  
3 that if we don't spell the definitions out absolutely and  
4 particularly in this regulation, we're going to have some  
5 problems again. And so I would like to see on your  
6 setbacks and so forth, spell them out so people can  
7 understand, so they are in plain language.

8           The young lady that testified before me,  
9 touched on the other area that I was going to touch on,  
10 the Julie Jenson study, and that's already been  
11 introduced. I do have a newspaper article out of the  
12 Peoria Journal Star, February the 4th, '94 study done by  
13 Susan Shifleman, professor of medical physiology at Duke  
14 University, and I think some of her work has been already  
15 introduced. And apparently, she came up with a study  
16 that links smell and emotion, and this may help unravel  
17 why unpleasant odors, such as people living downwind from  
18 smelly, dusty or agricultural sites. And I think  
19 Shifleman has been doing a lot of work on smell and --  
20 between smell and emotion.

21           The other thing that I wanted to introduce,  
22 some photographs. And these photographs are photographs  
23 of an area in our county, it's on 136 between Heyworth  
24 and McLean. And a lot of farmer friends of mine in that

1 area are having some serious problems there between 70  
2 and 90,000 hogs in three to four facilities in that area.  
3 And some of these pictures depict what the reality is.  
4 We can have these people standing up here telling about  
5 how wonderful it is to educate people on how to do these  
6 things and how wonderful we're doing it, but in fact, it  
7 is not being done. This is the reason we need  
8 regulation. This may or shall, that we have in the law,  
9 needs to read, we'll do it; if not, we're going to come  
10 out with a big hammer and you will do it in the future.

11 These are some good examples of why, showing  
12 that they're not knifing it, dumping it right on the  
13 ground, standing in puddles; there's a bunch of pictures  
14 on that. Showing dead things laying in a building right  
15 on the roadway. Showing big manure spreaders, big honey  
16 dipper wagons going down the road, no lights or anything.  
17 This is a common everyday thing that these people are  
18 living in and living through. This is daily. And these  
19 facilities came in after these folks. Some of these  
20 folks have been on the farm, their families have been on  
21 the farm 100 years.

22 And when I talk to city folks who move to the  
23 country, because originally we were deemed as a bunch of  
24 city folk moving to the country, can't stand the smell or

1 we've been depicted in these hearings as a shrill voice.  
2 We're not shrill voices, we're voices crying out in the  
3 wilderness saying, we need some help. And I truly  
4 believe the Pollution Control Board is wanting to help,  
5 and I believe we're going to get some help. So I thank  
6 you for the opportunity.

7  
8 MS. LOZUK-LAWLESS: Thank you very much, Mr.  
9 Emmett. You did want to enter those pictures into the  
10 record, did you not?

11  
12 MR. EMMETT: Yes.

13  
14 MS. LOZUK-LAWLESS: Mr. Emmett, could you  
15 again clarify where these pictures were taken?

16  
17 MR. EMMETT: Route 136, between Heyworth and  
18 McLean in McLean County, Illinois.

19  
20 MS. LOZUK-LAWLESS: Did you take these  
21 pictures?

22  
23 MR. EMMETT: No, I did not, a gentleman by  
24 the name of Bill Potts. Bill is right there. Bill's the

1 gentleman that took the pictures. He lives right next  
2 door to this.

3

4 MS. LOZUK-LAWLESS: Could you swear him in,  
5 please.

6

7

(Witness sworn.)

8

9 MS. LOZUK-LAWLESS: Did you take these  
10 pictures, sir?

11

12

MR. POTTS: I took all those pictures.

13

14

MS. LOZUK-LAWLESS: When did you take them?

15

16

17

MR. POTTS: Last summer. A year ago up until  
this Fall. This past Fall.

18

19

MS. LOZUK-LAWLESS: And Mr. --

20

21

22

23

24

MR. POTTS: 90,000 head of hog in six-tenths  
of a mile. We've had some North of us. We had some  
Southeast of us. We had some West of us. So we have 80  
to 90,000 hogs within a half mile, a mile and a half of

1 us. 70,000 hogs produce as much manure as 180,000, which  
2 is in Bloomington-Normal and maybe Clinton and Lincoln.  
3 And we have them there and smell them all the time. We  
4 get the stuff on our windows. And I've got --

5

6 MS. LOZUK-LAWLESS: I probably -- if you want  
7 to testify --

8

9 MR. POTTS: I'm sorry. You shouldn't have  
10 put me on, Bill.

11

12 MS. LOZUK-LAWLESS: Let the record reflect,  
13 that Mr. Emmett's admission of the article, Bad Smells  
14 Make Brain Say P-U, is marked as Exhibit 77 and entered  
15 into the record.

16 And seven photographs, which he's testified  
17 to will be marked as one exhibit and that will be Exhibit  
18 Number 78.

19 Any questions from anyone in the audience of  
20 Mr. Emmett? Mr. Harrington.

21

22 MR. HARRINGTON: Will you please describe  
23 your farm and its size for the record?

24

1                   MR. EMMETT: Family farm with 320 acres. We  
2 raise cattle, horses and various grain crops.

3

4                   MR. HARRINGTON: Thank you.

5

6                   MS. LOZUK-LAWLESS: Doctor Marlin.

7

8                   MR. MARLIN: I have a couple questions. You  
9 referred to DNR informing you that a study or a ruling  
10 regarding setbacks had come out recently; could you  
11 clarify that?

12

13                   MR. EMMETT: There's the attorney right  
14 there.

15

16                   MR. MARLIN: That's EPA?

17

18                   MR. EMMETT: I'm sorry. I thought it was --

19

20                   MS. LOZUK-LAWLESS: Who was he pointing to?

21 Mr. Warrington.

22

23                   MR. MARLIN: Setbacks, if there was something  
24 new, you --

1                   MR. EMMETT: A question I had originally over  
2                   two years ago in regard to a setback question, and the  
3                   definition of a non-farm business, and we have been six  
4                   years trying to get the definition, and finally recently  
5                   in the past few weeks --

6  
7                   MR. MARLIN: In your travel over your  
8                   personal experience, do you have experience in relation  
9                   to the distance from a lagoon or similar facility to  
10                  livestock facility that the odor is objectionable to the  
11                  point where people are nauseous or unable to do outdoor  
12                  activities, such as picnics and barbecues?

13  
14                  MR. EMMETT: Well, people we talk to  
15                  distances as long as a mile away. I think we have to be  
16                  realistic and we're not -- groups that I belong to are  
17                  not attempting to run the pork industry out of Illinois.  
18                  We need a viable pork industry in Illinois, but we don't  
19                  need a viable pork industry at the expense of people. In  
20                  my opinion, people are more important than pork. But we  
21                  have to have a realistic setback of a quarter mile, in my  
22                  opinion. And from my experience of talking to people  
23                  across this country, a quarter mile is absolutely  
24                  insufficient.



1                   MS. LOZUK-LAWLESS: Thank you, Mr. Emmett.  
2                   Any other questions for Mr. Emmett? Yes, board member  
3                   Meyer.

4  
5                   MR. MEYER: Thank you, madam Chairman. These  
6                   facilities that are located in your area, would you  
7                   describe your area as being most concentrated in hog  
8                   production in the state?

9  
10                  MR. EMMETT: No. No, sir, I would not. The  
11                  three hog facilities on 136, there's an extreme  
12                  concentration there. I think Bill said 70 to 90,000 pigs  
13                  in those three facilities, and there's a very large  
14                  concentration. But other areas of the state where we  
15                  have a large concentration, Green County. We have a  
16                  large concentration in Green County. Total numbers over  
17                  there, I'm not sure if there are as many as \$200,000,  
18                  whether or not that's on site at one time, or whether or  
19                  not that's a production, I don't know. But I do know  
20                  that the facilities are massive and extensive.

21  
22                  MR. MEYER: How far should setback be?

23  
24                  MR. EMMETT: The organization that I belong

1 to are asking for three-quarters of a mile. We believe  
2 we need to do away with the differentiations of the mid  
3 farm, non-farm. Because as the young lady who spoke  
4 before me said, what's the difference if you're not a  
5 farmer or a farmer. And Bill Potts is a farmer, and we  
6 are discriminating against them. The law is  
7 discriminating when it discriminates between farm and  
8 non-farm. I think it's an interpretive problem as to  
9 whether it's farm or non-farm.

10 What you're saying, three-quarters of a mile,  
11 whether that's totally unreasonable. Our groups could  
12 sit down and talk, but that's what we believe,  
13 three-quarters of a mile, two miles for populated area.  
14 And there was a study, and I think it was mentioned in  
15 earlier testimony, I think over at Galesburg about the  
16 study that IEPA did, but I think Bruce St. John discussed  
17 that. I believe that they studied less than one percent  
18 or about one percent of the counties in the entire state  
19 of Illinois when they did that study, so how valid is  
20 that study.

21 I have always been of the opinion that if a  
22 large facility wants to move in, they should take the  
23 financial responsibility and purchase the homes and  
24 purchase the land that they need for the setback. Let

1           them shoulder the financial responsible rather than me,  
2           the resident, shoulder that responsibility.

3

4                         MR. MEYER: Three-quarters of a mile would  
5           solve your problem?

6

7                         MR. EMMETT: It may not solve the problem,  
8           but I think we have always been of the opinion, doctor,  
9           that we have to be reasonable. We have to be reasonable,  
10          and there has to be a distance set. Some people may  
11          think five miles is proper and obviously, you know, the  
12          majority of us will think that's unreasonable. So we  
13          have to come up with some position.

14                        It's obvious, I think, that anybody that's  
15          looked at the problem at all, a quarter mile is not  
16          adequate for today's industrial sites that we have. It's  
17          just not adequate. And therefore, we have to do  
18          something about that.

19

20                        MS. LOZUK-LAWLESS: Thank you, Mr. Emmett.  
21          Mr. Emmett, in these pictures there is a white farm house  
22          and some trees and one is an evergreen. Do you know  
23          about that one?

24

1 MR. EMMETT: Bill, is that your house?

2

3 MR. POTTS: No, it's not my house but it's a  
4 neighbor's and it goes right near his house. It's within  
5 a half a mile of it.

6

7 MS. TIPSORD: Is that his field that the  
8 manure has been spread on?

9

10 MR. POTTS: No, it's not his field, but it's  
11 his home.

12

13 MS. LOZUK-LAWLESS: Are there any other  
14 questions for Mr. Emmett?

15

16 MR. HARRINGTON: Could you tell me where you  
17 got the numbers for the number of pigs in your county?

18

19 MR. EMMETT: An article, and also Mr. Potts  
20 lives right there and he his familiar with the  
21 facilities, I am not so -- you know, with the numbers.  
22 There was an article that the Panograph did, I believe it  
23 was back in December, where they interviewed  
24 representatives from that company and area residents.

1                   MR. HARRINGTON: Talk to number of pigs on  
2 site at any one time?

3

4                   MR. EMMETT: I would have to refer to Bill.  
5 I believe Bill knows those three facilities, that's what  
6 they were talking about.

7

8                   MS. LOZUK-LAWLESS: You can answer, Bill.

9

10                  MR. POTTS: Well, I would like to do -- and  
11 my wife says don't. This is a letter sent to the  
12 Panograph by my son, Jack. I'm a U of I graduate way  
13 back in '49, my father graduated from there, my son  
14 graduated from there in '43. We all majored in  
15 agriculture. We're on a 100 year old farm. I would like  
16 to read this, which I think hits it on the head.

17

18                  MS. LOZUK-LAWLESS: Excuse me, Bill.

19

20                  MR. POTTS: And I'm not --

21

22                  MS. LOZUK-LAWLESS: Is it responsive to Mr.  
23 Harrington's question?

24

1 MR. POTTS: Yeah, I'm going to tell him.

2

3 MS. LOZUK-LAWLESS: Will you go over to the  
4 microphone?

5

6 MR. POTTS: Okay. This is the first one I've  
7 been to.

8

9 MS. LOZUK-LAWLESS: Okay.

10

11 MR. POTTS: My family -- my grandparents  
12 settled in McLean County in the 1850s and '60s, so we've  
13 been around a long time. I'll go over this. My son  
14 wrote this very well to the Panograph in Bloomington.  
15 Standards for effective hog operation. Some folks still  
16 don't get it. After three years of steadily rising  
17 opposition, the factory hog operations, these for  
18 incorporations still believe they can keep building in  
19 Illinois without addressing the issues of odor,  
20 pollution, waste disposal and their impact on the  
21 citizens and the land. We the people and the land are  
22 not being protected by society as society promised.  
23 Zoning needs to be changed to reflect the issues on the  
24 21st century, not the 19th. Our culture is not

1 connected -- our culture is not connected to the land as  
2 it was 100 years ago. For many people, out of site is  
3 out of mind. However, with the concentration and  
4 economic power that the actions of a few can and do have  
5 serious long-term consequences upon this earth we call  
6 home. We live in a unique echo system. Any school child  
7 can tell us about the Roosevelt Home, acid rain, cutting  
8 of the Rain Forest, man's cumulative impact. Between  
9 McLean and Heyworth, there are 70 to 90,000 hogs in a two  
10 mile area. I live right between them. There's an  
11 operation a little over a half a mile over. Anytime the  
12 wind blows, I have it.

13 We talked to Mr. Taylor, I believe it was two  
14 years ago, called him about it, he said, you document  
15 this when you get odors. I have over 90 of them but we  
16 missed a lot of them.

17 We have over 70 to 90,000 hogs in a two mile  
18 area. They have turned this area we call our home into a  
19 dump site for manure. You've seen the pictures. They  
20 pour six to 7,000 gallon of manure per acre on the land  
21 and throw a few inches of soil over it; most of time, not  
22 that much. The manure oozes out and lies exposed to the  
23 elements and does for weeks. It's a nightmare for people  
24 and it's a travesty of our stewardship for our state

1 soils. Drive by these fields after a Spring rain,  
2 there's inadequate residue upon the soil surface, and  
3 significant erosion running into the waters of this  
4 state.

5 I had one picture I didn't enlarge, I wish I  
6 had. It's a half a mile East of 136 in one of their  
7 facility where they have houses. Prairie Creek. I have  
8 the picture at home, and they put that manure on as close  
9 as we are to the bleacher seats over there, and there are  
10 big drainpipes going into the creek.

11 With a legacy -- what legacy will we leave to  
12 our children? Are the people of Illinois going to  
13 forsake the responsibilities and allow balance sheets to  
14 prevail over the heritage we have entrusted County Zoning  
15 regarding explosion of factory hog farms in Illinois.

16 Land and air can't absorb such extreme  
17 numbers of animals in a limited zone, zone for it,  
18 mandate it, the no till placement of manure to alleviate  
19 soil erosion. Industry isn't allowed to pollute our air.  
20 Factory hog farms should be held to reasonable standards.  
21 A proper balance and respect for our state's environment  
22 will result. Signed, Jack Potts.

23 I want to thank you for letting me voice my  
24 opinion.



1 MS. LOZUK-LAWLESS: Mr. Harrington, do you  
2 have a follow-up question?

3

4 MR. HARRINGTON: Can you tell me the basis  
5 for the number of pigs?

6

7 MR. POTTS: One of their own people told me  
8 in a year ago last Fall, that they had one unit North of  
9 us as two units, 25,000 hogs in it and manure. I'd have  
10 to talk to Hartford representatives, whoever manages it.

11

12 MS. LOZUK-LAWLESS: Thank you, Mr. Potts.

13

14 MR. POTTS: Thank you.

15

16 MS. LOZUK-LAWLESS: Thank you, Mr. Emmett,  
17 very much.

18

19 And now we'll be moving along to the  
20 testimony of David Thompson.

21

22 MR. THOMPSON: Good afternoon. My name is  
23 David E. Thompson. My wife and I own and operate a pig  
24 farm near Pearl City, Illinois. Currently, we have 300  
100,000 bird layers, and one 100,000 pullet barbs.

1 Manure handled in solid form versus liquid. Sell it to  
2 mushroom farms and organic farmers. Remainder, spread on  
3 as fertilizer on corn, soybeans and hay fields. I'm  
4 director and intern president of the Illinois Poultry  
5 Counsel, active member of the Midwest Egg Producers, and  
6 served as a alternate on the Board of Midwest Poultry  
7 Federation. I have approximately 20 years experience in  
8 the AG industry.

9 Illinois Poultry Industry Counsel supports  
10 the passage of the Livestock Management Facilities Act,  
11 but as it now excludes most of the egg farms that I'm  
12 aware of in Illinois. Section 1010 defines how  
13 animal units are calculated. Number nine laying hens or  
14 broiler multiplied by .01, so they're referring to .01  
15 animal units, and that's if the facility has overflow  
16 water. 10 laying hens or boilers, multiplied by .03, if  
17 the facility has liquid manure handling system. Since  
18 there are no egg farms in Illinois with continuous  
19 flowing water, and probably no egg facilities with liquid  
20 manure handling systems, this language excludes the  
21 laying hens and boilers in Illinois from this act.

22 While talking with Mr. A. G. Taylor, IEPA, on  
23 January 27th, 1997, I believe he stated that these animal  
24 unit calculations were based upon federal standards

1 developed in 1972. I think today he said '73. If this  
2 is the case, then the calculations are vastly outdated.

3 General net assist in the egg industry have  
4 now developed a much smaller and more efficient bird.  
5 The egg laying chicken of the early 1970s probably  
6 weighed four to five plus pounds, and used 23 to 36 or  
7 more pounds of feed per 100 birds per day. Today's  
8 laying hens weighed approximately 3.4 to 3.6 pounds, and  
9 consume an average of about 22 to 23 pounds per 100 birds  
10 per day. Today's laying hens are also much more  
11 efficient and convert feed into eggs rather than manure.  
12 In fact, an egg producer in the early 1970s thought he  
13 was doing a good job if he had 175 eggs per hen house by  
14 60 weeks of age. Today, our chickens are routinely  
15 producing 235 to 240 eggs by 60 weeks of age. Laying  
16 hens today are much different than birds of 25 years ago.  
17 Therefore, if .01 was an appropriate animal unit  
18 calculation 25 years ago, then a lesser figure would  
19 logically be realistic in 1997. This is especially true  
20 because of the .01 figure included wording about  
21 continuous overflow of water in the description, which  
22 added to the amount of waste generated by the flock.

23 Consequently, I respectfully request that .01  
24 figure be modified to reflect the smaller more efficient

1 layer today, and reference to continuous overflow water  
2 be deleted from the section Tennessee language. I  
3 therefore recommend the animal unit for laying chickens  
4 to reflect the genetic improvement in the layer. A more  
5 .0089 for egg laying chickens with middle or cup  
6 drinkers. My reasoning is based upon the breeders  
7 management guides that I have that are supplied with this  
8 written testimony. Decal B. Poultry Management Guide is  
9 dated 1979, it was their most popular layer at that time.  
10 The mature body size was 39 pounds. Is showing to be  
11 23.777 to 26.5 pounds per 100 birds per day. The Decal  
12 B. is the current bird, which is the most popular --  
13 Decal's most popular bird at this time and has a much  
14 smaller body size. It's body size is shown at 3.53  
15 pounds. Also feed consumption, 21.9 to 26 -- weeks, 21.9  
16 to 22.6 per 100 birds per day. 1979 body weight, 39 to  
17 42; average it out to 4.05 pounds. Use the 1996 body  
18 weight of the current Decal B. bird is 3.53. Of .01 the  
19 animal unit that we're currently using, .0087; if you  
20 round it out, .009, recommending we use as the new  
21 animal.

22 Also missing from the section 1010, Animal  
23 Units, is a category for immature laying hens known as  
24 pullets. They should have a category for young animals,

1 should be a category for pullets. The reasoning behind  
2 this, the amount of feed consumed during the growing  
3 period compared to the amount of feed consumed by adult  
4 layers for the same time period. If you take Decal B.  
5 Poultry Management Guide and look at their cumulative  
6 feed consumption for 17 weeks, you'll see that they're  
7 projecting that pullet would be 11.97 pounds to feed per  
8 bird, that's a cumulative consumption for the complete 17  
9 weeks. If you take a mature decap pullet -- or excuse  
10 me, mature decaplit up layer from 19 currently. 1996 to  
11 1997, you'll see that their mature feed consumption, 21.9  
12 to 22.62 pounds, which averages out, if you take the  
13 average, they're .223. If mature bird gets .223 pounds  
14 of feed per day, then 17 weeks she would eat 17 times  
15 seven days in the week times .2234 or 26.54 pounds of  
16 feed. A pullet then only needs 41.5 percent of an  
17 adult -- of the feed that an adult bird would consume in  
18 the same 17 week period. I got that number by dividing  
19 11.97, which is what a pullet eats in 17 weeks, divided  
20 by the 26.54, equals 45.1 percent. Therefore, I  
21 recommend the realistic value for pullets is .0034. My  
22 reasoning and calculations are shown below. Take .009  
23 recommended adult layer of animal unit value, multiplied  
24 by .551, equals .0041 or rounded off .004. This is also

1 another reason for adding the category of pullets to  
2 section 1010. To the egg producers, raise their  
3 replacement stocks. That pullets on farms should be  
4 separate from older hens, so not to expose the growing  
5 birds to the diseases before they have appropriate time.

6 In summary, I recommend the reference section  
7 1010 to overflow water be deleted. Number two, animal  
8 unit for laying, 10.01 to .009, and category pullets be  
9 added to section 1010 with .04 as the appropriate animal  
10 unit.

11 Thank you for considering my testimony.

12

13 MS. LOZUK-LAWLESS: Thank you, Mr. Thompson.  
14 Would you like to enter as an exhibit the attachments  
15 that you have to your testimony?

16

17 MR. THOMPSON: Yes.

18

19 MS. LOZUK-LAWLESS: Seeing that you already  
20 gave those to me, I will take off your testimony that you  
21 have read into the record and we'll mark the document,  
22 Excel-Link Performance Objectives, which also includes  
23 the Decal B. Delta Accelerated Program into the record as  
24 Exhibit Number 79.

1                   Are there any questions for Mr. Thompson?

2

3                   MS. MANNING: I guess I don't understand the  
4 point about inclusion or non-inclusion of the statute.  
5 It sounds like your testimony is, you don't believe any  
6 egg farms are included in the statute because neither of  
7 them fit the .9 or .10 definition.

8

9                   MR. THOMPSON: There is nothing included in  
10 the statute, because the statute reads layers of broilers  
11 with continuous overflow of water, and there aren't any.  
12 There aren't any farms like that in Illinois that I'm  
13 aware of, and I don't believe there are any farms that  
14 have liquid manure systems in Illinois.

15

16                   MS. MANNING: Could you define continuous  
17 overflow water for us?

18

19                   MR. THOMPSON: Continuous water running down  
20 a trough in front of the cages, and then when it goes by  
21 the chickens once, and if they don't drink it, it goes  
22 out into the pit or lagoon or whatever they've got to  
23 catch the water. It's a very inefficient way and dirty  
24 way of watering birds. It seems to waste -- spread

1 disease and waste energy. Current cages use nibbles or  
2 watering cups. So by specifying that, you're only  
3 covering layers of broilers with continuous overflow  
4 watering, you're excluding the rest of the layers.

5

6 MS. MANNING: And liquid manure handling, the  
7 system, how are the droppings in your situation?

8

9 MR. THOMPSON: Droppings fall through the  
10 bottom of the cage onto a conveyer belt, and the conveyer  
11 belt runs the length of the cages and falls onto another  
12 conveyer belt, and it's taken out to my compost building.  
13 We try to keep the matter and manure separate. You have  
14 much less odor. It's a lot healthier for everybody if  
15 you don't have water mixed in the manure.

16

17 MS. MANNING: In terms of statutory language  
18 we're not in position to deal with standing statutory  
19 language in terms of numbers. I appreciate your  
20 testimony, especially the sort of coverage issue.

21

22 MR. THOMPSON: I just thought you should be  
23 aware of it.

24



1 MS. MANNING: I don't understand whether you  
2 want to be covered or not. Does he want to be in the act  
3 or does he like being out of the act?

4

5 MR. THOMPSON: No, I support the act. I  
6 think it's necessary.

7

8 MS. MANNING: You just assume be covered by  
9 it?

10 MR. THOMPSON: Yeah, I think you should  
11 delete the continuing overflow watering system.

12

13 MR. WARRINGTON: I believe you said that you  
14 had a livestock waste handing facility at your operation?

15

16 MR. THOMPSON: I don't know what you mean.

17

18 MR. WARRINGTON: You collect it, compose it  
19 and spread it?

20

21 MR. THOMPSON: Sure.

22

23 MR. WARRINGTON: The Livestock Facility  
24 Management Act, that is a covered operation. So although

1           you can be fitting it to any of the categories, the  
2           animal units or list conversion factors, your operations  
3           handling that waste would be covered by the Livestock  
4           Management Facility Act.

5

6                         MS. LOZUK-LAWLESS: Thank you. Mr. Meyer.

7

8                         MR. MEYER: I understand you collect waste  
9           from a conveyer?

10

11                        MR. THOMPSON: Yes, sir.

12

13                        MR. MEYER: Are you familiar with Wisconsin's  
14           rule, which for some reason they have apparently  
15           prohibited or --

16

17                        MR. THOMPSON: There are operations similar  
18           to mine in Wisconsin, so I believe Wisconsin's laws must  
19           be somewhat similar to Illinois.

20

21                        MR. MEYER: Are there regulations as to the  
22           amount of application?

23

24                        MR. THOMPSON: Yes, I believe Wisconsin does

1 do much the same as this act is requiring, where we would  
2 keep track of how much manure we spread on the ground and  
3 only apply anaerobic weights.

4

5 MR. MEYER: Does Illinois have regulations?

6

7 MR. THOMPSON: I think it will, as soon as  
8 you pass this act.

9

10 MS. LOZUK-LAWLESS: Thank you. Any other  
11 questions for Mr. Thompson? Thank you very much, Mr.  
12 Thompson.

13 And Ms. Janet Fritz, you can go on with your  
14 testimony.

15

16 (Witness sworn.)

17

18 MS. FRITZ: Thank you for this opportunity.  
19 This is quite a honor to be here in front of you. I am  
20 an American farmer for 55 years, but I brought my little  
21 scrapbook from when I was real young. And of course,  
22 when you live on a farm all these years, one of the first  
23 things you get into is problems with input/output, that  
24 seems to be America's way of feeding the people and

1 feeding the animals and everything on earth. So I just  
2 wanted to give you a little bit of important information.  
3 I'll read this one article first and then I'll go into  
4 basic food groups, because I think you all got into all  
5 your labels. We want all the metabolism and energy into  
6 all your labels, very good, but I don't think anybody is  
7 watching what is going on. So let's take a look. If I  
8 can give you some information. And as far as the hearing  
9 today, it's just input/output, and we've got to get it to  
10 you and got to get rid of it, and it seems to be a pretty  
11 good job until just recently, and let's see if we can  
12 solve some problems.

13 My name is Janet K. Fritz. I'm an  
14 American farmer of 55 years. There remains 440 years of  
15 family crop, and livestock and gardening within the  
16 family realm on behalf of all the people. Our operation  
17 is 526 crop acres and farrow to finish of 700 butchers  
18 per year.

19 I am pleased with the opportunity to attend  
20 the University of Iowa, as I can now relate to my work in  
21 the cafeteria as a transfer of food resources from the  
22 farm that allows study to take place.

23 I am also proud of my participation in 4H  
24 programs, and chairperson of the cooperative extension

1 programs, and teaching Sunday School and Bible School.  
2 The support of the local school with second, and third,  
3 fourth graders and some adults coming to the farm to  
4 learn about the free food chain, will likely be the  
5 highlight of mine in the American culture.

6 I believe once we're taught the principles of  
7 agriculture across 120 billion acres of soil and water,  
8 along with the metabolism and energy of calories in the  
9 basic food groups, the signature of purpose for all  
10 hearings will be based upon common knowledge for humanity  
11 and dignity of all free resources for all families.

12 I also find the reference to eight, eight  
13 ounce glasses of water per day for 182.5 gallons of water  
14 per year, per person, a common knowledge focussed. If it  
15 is understood that 19 million gallons of water is held in  
16 the top 100 feet of soil per acre, and how the capillary  
17 attraction allows the water to be available for us, then  
18 common knowledge will reflect the confidence for checks  
19 and balances. Along with 27,000 gallons of water per  
20 inch of rain per acre begins to reach a literate comfort  
21 zone for our water intake.

22 With 55 years reflecting all areas of crop  
23 and livestock records, along with testing resources  
24 dating back to 1932 at the University of Illinois, I

1 believe the support of home preparation, agriculture  
2 intelligence and Bible literature remain true and correct  
3 today, as my records show each year for free public  
4 support of 11,100,000 meals and the allowance for  
5 billions of snacks and meals by common knowledge for all.  
6 And we'll go into this a little later.

7 I must first make clear to the 32 people  
8 within this hearing what I think common knowledge is to  
9 my records. From the kitchen, five groups of children in  
10 my care over the years with three in one group, my own;  
11 in the field for crops from start to finish, and  
12 livestock care from start to finish with all varieties in  
13 healthy positions with records, gram scale, testing  
14 records of all kinds, including manure handling from the  
15 40s to today's movement of intake. There has to be a  
16 lesson here for all to put their signature to the test of  
17 the free school house of life.

18 Keep in mind we were 50 years behind -- Keep  
19 in mind we were 50 years behind by the notes offered with  
20 this document from the First Principles of Agriculture,  
21 but by the notes of the metabolism and energy from the  
22 1700s, I believe we are further behind than anyone ever  
23 imagined could happen overall in such a short period of  
24 neglect of the education system.

1                   The Illinois Department of Agriculture  
2                   released the dates for 50,000 hog producers with the  
3                   decline to 9,600 last year, with another 11 percent  
4                   decline this year to the lowest number of hogs in the  
5                   history of Illinois in the distribution system. I repeat  
6                   that, the distribution system. The way we're set up  
7                   today, the very efficient. Yet here we are presenting a  
8                   hearing to the public for reasons of unknown origin to  
9                   come up with a solution for the common knowledge of  
10                  nutritional intake and purpose of a given operation.

11                  Another point for math reveals that the state  
12                  of Illinois produces more than enough basic food groups  
13                  to feed the whole country with the nutritional intake to  
14                  support these cells of life all around us with no concept  
15                  of the waste handling upon the soil for the cause and  
16                  effect of maturity of the cells of life I just talked  
17                  about.

18                  I will tell you that I have not found a 90  
19                  year old with agricultural experience that recognizes the  
20                  billions of meals and snacks provided by his or her being  
21                  for public intake. Nor at the grade school level, for  
22                  which most common knowledge has to be maintained for best  
23                  use. Nor high school, college degree, masters or PHD  
24                  status recognizes the maintenance of checks and balances

1 for universal literate comfort recognized at the first  
2 mouthful of food at birth for all cells to work in  
3 harmony in common knowledge for all.

4 In the few seconds it takes to present these  
5 few words of common knowledge, it is recognized with  
6 respect for the comment for, why was I never taught such  
7 reasonable dignity to teach others common resources for  
8 all families of intelligent origin.

9 It is an honor to serve my fellow heritage  
10 free for the past 55 years. I do have a civic duty to  
11 teach by the notes of this day for signature of reference  
12 for all generations to come. In your jurisdiction, as  
13 well as my own record, of universal heritage of  
14 intelligence and resources relative to everything under  
15 the sun.

16 Thank you for your time, and I do have a few  
17 things here that I wish to --

18

19 MS. LOZUK-LAWLESS: Enter into the record as  
20 an exhibit.

21

22 MS. FRITZ: As an exhibit, Metabolism and  
23 Energy Resource. And I mentioned a little bit earlier, I  
24 mentioned the fact that USDA went and we went to all



1 kinds of work. I have nothing to do with the USDA, but I  
2 feel a part of it since I've been in the world, and  
3 animals all these years. But if you -- if you're  
4 participating in church or anything -- I mean, we just  
5 had the hunger walk and all the churches said two-thirds  
6 of the world was eating a cup of cereal or a cup of food  
7 per day. Now when you get home, look at your cereal  
8 boxes, and it goes 110 calories across every box, and it  
9 may be three-quarters of a cup, or it may be one and a  
10 half cups.

11 But when you look at the metabolism in energy  
12 factors, it matters not what is in that cup --

13

14 MS. LOZUK-LAWLESS: Is this somehow related  
15 to livestock management facilities?

16

17 MS. FRITZ: I mean, he told you how much the  
18 chickens ate. And when you look at metabolism and energy  
19 by the First Principles of Agriculture, 1904, we knew --  
20 we knew exactly what everybody said today because of --  
21 now listen to this, one gram -- and how many of us have a  
22 gram scale? All we do is eat and we feel fine, thank you  
23 very much. But we don't even know how much we eat  
24 because we don't have a gram scale. This is telling you

1           what's going on, whether it's me, you, your dog, a cat, a  
2           hog, a cow, and it references it per pound in this book.

3

4                       MS. LOZUK-LAWLESS: Thank you. What I'll do  
5           is have Ms. Tipsord take it.

6

7                       MS. FRITZ: Oh, you don't want to know 28.5  
8           grams is one ounce? But that goes right with this USDA.  
9           I want this in there too. This came out recently.

10                      Now we just did -- and it's beautiful. We  
11           took all the food that -- that was around the country and  
12           we collected it for the poor. Mr. Gickman reports  
13           many -- Mr. Gickman reports they collected 13.8 billions  
14           of pounds of food, which fed 49 million people.

15                      Now how many of you knew that you averaged  
16           282 pounds per person per year? Nor did you know that it  
17           cost you three cents a pound or --

18

19                      MS. LOZUK-LAWLESS: Ms. Fritz, excuse me.

20

21                      MS. FRITZ: I want that put in.

22

23                      MS. LOZUK-LAWLESS: Enter your exhibits then.

24

1 MS. FRITZ: Does she have this one?

2

3 MS. LOZUK-LAWLESS: We're going to break and  
4 give everyone a limited time because we're running out of  
5 time, and I hate to cut you off.

6

7 MS. FRITZ: I know you do, because you didn't  
8 do that to anybody else.

9

10 MS. LOZUK-LAWLESS: But I'm going to have to  
11 do it with anybody after you.

12

13 MS. FRITZ: I do have three books.

14

15 MS. LOZUK-LAWLESS: But you're not entering  
16 those books as exhibits?

17

18 MS. FRITZ: They're mentioned in there.

19

20 MS. LOZUK-LAWLESS: You don't need to enter  
21 them in the record because you won't get them back.

22

23 MS. FRITZ: There's Illinois Farmers  
24 Institute, Household science is another one with the

1 basic food groups as I mentioned over 100 times. I hope  
2 you find out that what farmers put into you, all of these  
3 different products that come across the table here is  
4 identical per poundage. And if you study it very long,  
5 you will know how much you need to have if you're going  
6 to have confinement.

7  
8 MS. LOZUK-LAWLESS: Thank you. Thank you,  
9 Let the record reflect, Metabolism and Energy article is  
10 marked as Exhibit Number 80.

11 Let the record reflect article titled, USDA  
12 Leads Effort to Feed Hungry with Surplus Food, marked as  
13 Exhibit 81.

14 And let the record reflect that the testimony  
15 of Janet Fritz has been marked as Exhibit Number 82.

16 Thank you very much. And what I would like  
17 to do, take a 10 minute break and come back on the record  
18 with the remainder of the witnesses, starting with these  
19 people, if they can come and sit at the front table:  
20 Mike Veenhuizer, Jamie Wilright, Dwayne Haig and Harvey  
21 Fisher. And then all of these persons who have signed up  
22 on this list, we'll get to all of you. And I apologize  
23 for the lateness of the hour.

24 Does anyone have questions for Ms. Fritz?

1 All right. Thank you.

2

3

(At this time a break was taken.)

4

5

MS. LOZUK-LAWLESS: A note for the record,

6

Mr. Dwayne Haig did leave; however, he gave me some

7

testimony which will be filed.

8

All right, will the court reporter swear them

9

in?

10

11

(Panel was sworn in.)

12

13

MS. LOZUK-LAWLESS: Mr. Harrington, would you

14

like to comment?

15

16

MR. HARRINGTON: Doctor Michael A.

17

Veenhuitzen, ask him to present his testimony at this

18

time.

19

20

MR. VEENHUIZEN: Thank you. I'd like to say

21

it is a pleasure to have an opportunity to speak to this

22

board this afternoon.

23

My name is Mike Veenhuizen. I am the owner

24

of Livestock Engineering Solutions, and engineering

1 consulting service located in Greenwood, Indiana. I  
2 started Livestock Engineering Solutions in May of '94,  
3 and have provided service to livestock producers across  
4 the Midwest. My responsibilities and activities include  
5 the planning, designing, recommended management and  
6 construction of manure and wastewater handling, storage,  
7 and treatment systems, building ventilation, animal  
8 housing systems and farmstead engineering. Prior to  
9 starting Livestock Engineering Solutions, I was assistant  
10 professional in Agriculture Engineering and State  
11 Extension Agricultural Engineer for livestock systems at  
12 Ohio State University. During that time, I worked with  
13 several agricultural producers in the area of manure and  
14 waste water management, livestock housing, ventilation  
15 and farmstead design. Prior to my experiences at Ohio  
16 State University, I was employed for seven years with  
17 Midwest Plan Service in Ames, Iowa, where I was  
18 responsible for developing technical handbooks, bulletins  
19 and plans pertaining to livestock housing and waste  
20 management.

21 I received both a Bachelor of Science Degree  
22 in Agricultural Engineering, and a Master of Science  
23 Degree in Agricultural Engineering from Purdue  
24 University, and a PhD in Agricultural Engineering from

1 Iowa State University. I have been a member of the  
2 American Society of Agriculture Engineers since 1982. I  
3 have been recently appointed to the National Agricultural  
4 Air Quality Task Force.

5 Today, I would like to provide testimony in  
6 support of these proposed rules.

7 As an engineering designer of manure and  
8 waste water management systems, I am interested in sound  
9 environmental guidelines for the design and construction  
10 of earthen livestock waste lagoons that are practical and  
11 economical. In reviewing the proposed rules, I would  
12 like to speak in support of many of the design and siting  
13 criteria, and offer some of my interpretations.

14 Like to address subpart B on standards for  
15 livestock waste lagoons, section 506.204 sets forth  
16 parameters for the design and modified lagoon, and  
17 specifically addresses two reference guidelines, Design a  
18 Lagoon and Waste Management Engineering Practice,  
19 EPO4.301, and what's published by the USDA technical  
20 guide; both of these documents provide acceptable design  
21 values when used to design livestock. I professionally  
22 and personally used these references for guidance and  
23 support, and they're inclusion in the proposed rules is  
24 to be complemented.

1                   I would like to note though, that the ASAE  
2                   Engineering Practice 403.1 has been revised and replaced  
3                   with ASAE EP403.2, December of '92, and I would recommend  
4                   the inclusion of the most standard reference and  
5                   provision be made to allow for future inclusion of the  
6                   current standards as data is made available. One  
7                   significant change is the removal of a generalized manure  
8                   production, table one from the Engineering Practice, and  
9                   a reference to ASAE D384.1, and a reference to data  
10                  standard on Manure Production and Characteristics, which  
11                  is a more comprehensive and representative of manure  
12                  production values.

13                  In addition to these two standards and  
14                  references, I have often relied on other current research  
15                  data and documented resource information, such as  
16                  Livestock Waste Facilities Handbook and others subject to  
17                  approval. I would suggest that the department be given  
18                  the authority to approve the use of documented references  
19                  that accept these that demonstrate the current thinking  
20                  and capabilities as you address these standards in your  
21                  rules.

22                  In addressing the specific parts of the  
23                  lagoon design standards, I would like to briefly review  
24                  and discuss the biological process of what we're trying



1 to discuss. Anaerobic lagoons are used to stabilize  
2 livestock manure by taking advantage of the natural  
3 biological processes. In the absence of oxygen, all high  
4 strength organic wastes, like manure, will be digested by  
5 anaerobic bacteria. Advantages of these anaerobic  
6 lagoons, which are specified in the rules, include high  
7 degree of waste stabilization; high dilution rate for  
8 reduced odor emissions; lower land application odors; and  
9 volume reduction due to the conversion of solids to  
10 methane gas and carbon dioxide.

11 A properly functioning livestock waste lagoon  
12 contains two distinct types of acid formers and methane  
13 formers which act to break down the organic wastes and  
14 convert them to organic acids, and also convert the  
15 organic acids to methane gas, water and carbon dioxide.  
16 I present this information relative to the function and  
17 design of anaerobic lagoons as it relates to the impact  
18 on air quality and odor emissions.

19 A well functioning anaerobic lagoon will have  
20 a relatively constant level of suspended solids and  
21 dissolved minerals. The design of an anaerobic lagoon is  
22 intended to reduce the potential for odor emissions.  
23 Little or no odor will be detectable, except possibly  
24 possibly during a short warm up period in the Spring in

1 colder climates, which is your experience in Illinois.  
2 However, adequate design and dilution volumes, as part of  
3 the management strategies of our producers, when  
4 temperatures are warming can buffer the loading rate and  
5 reduce the potential of an odor risk.

6 The treatment efficiency and performance of a  
7 lagoon is greatly dependent on the loading rate, and the  
8 amount of dilution water or concentration of waste in the  
9 lagoon. A well function anaerobic lagoon requires a  
10 continuous loading of manure and waste waters. In  
11 addition to that, when starting up a lagoon, an adequate  
12 dilution volume is needed to assure sufficient treatment.

13 Considering the essential features necessary  
14 for a properly designed and managed lagoon, I would like  
15 to address briefly the following issues: Minimum  
16 treatment volume; manure storage volume; runoff wash  
17 water volumes; storage volumes; emergency storm volumes  
18 and sludge accumulation as it effects the start up  
19 operations of these facilities. The design values  
20 calculated in manure indicated in the Engineering  
21 Practice, represented at EP403.1. Take into  
22 consideration a climatic condition and by the activity  
23 insurance for treatment. Volatile solid loading dates  
24 for calculating minimum treatment problems are based on

1 engineering data standards at D384.1, which provides a  
2 comprehensive set of data on livestock species and size.  
3 Use of a more complete data will allow the designer an  
4 opportunity to minimize the environmental impact. The  
5 proposed rules, based on table one of EP403.1, if my  
6 proposal is accepted, a table will not be included and so  
7 I would refer you to ASAE D384.1 or chapter four of the  
8 U.S. Agriculture Waste Facilities Handbook.

9                   When interpreting rainfall lagoon surface on  
10 any runoff area, I have assumed this volume represents  
11 the expected rainfall on the lagoon surface of the  
12 design. Rainfall and evaporation rates vary across the  
13 state; for example, the annual rainfall maps and lack  
14 fall evaporation for Illinois vary from 32 to 48 inches  
15 for rainfall, and 30 to 36 inches for evaporation. This  
16 is not allowed for consideration of volumes necessary for  
17 the different designs, storage, length and rain cycle on  
18 our production facilities.

19                   In review of these designed standards and  
20 proposed rules, two options presented for determining the  
21 required freeboard above the design volumes. One foot  
22 freeboard is required for less than 300, with no runoff  
23 or collection. And two foot freeboard is recommended for  
24 all other lagoon configuration and production sizes. It

1 is my opinion that the freeboard in our designs is  
2 intended to provide a safety volume above the design  
3 volume.

4 In consideration of that, there's no mention  
5 of a storage volume for an emergency event, such as a 25  
6 year, 24 hour storm. For Illinois, this may vary from  
7 4.75 inches to six inches of rainfall. And this rainfall  
8 is independent of that size or production volume.  
9 Therefore, to provide adequate safety volume of one or  
10 more emergency storms or other emergency volumes, it is  
11 my opinion and recommendation that this two foot  
12 freeboard, which includes in the design volume a 25 year,  
13 24 hour storm volume be recommended for all of this.

14 The proposed rules refer to design sludge  
15 storage volume, which is necessary for long-term storage  
16 of either non or slow biodegradable solids. Typically, a  
17 design would include a five to 20 year sludge life. This  
18 volume consist of two components which I consider  
19 important as you consider the operation of the unit. A  
20 couple to the unit and have a high solid content with  
21 little biological break down activity. There is,  
22 however, a very thick slurry layer that exists within the  
23 inert solid and the design treatment volume. This layer  
24 is high in solids and dissolved solids that is too

1 concentrated to a -- for biological activity to occur.  
2 These volumes are in fact accounted for in the design  
3 numbers specified in the engineering practice.

4 The significance of this, as I look at it,  
5 from start up and odor release as it represents an  
6 advantage of the start up of the lagoon, because it takes  
7 some time for these various inert and condensed solid  
8 layers to develop, so it provides us additional dilution  
9 and start up volume to reduce the risk of odor  
10 degeneration.

11 Lagoon design standard section of proposed  
12 rules, it states that water shall be added to a newly  
13 constructed or modified lagoon 60 percent of the design  
14 depth prior to the initial -- of waste. This is in fact  
15 a very important feature in the management start up of  
16 the lagoon to assure adequate start up with minimal  
17 potential for odors. Minimal design volumes should be in  
18 place before manure is added.

19 Based on a specific loading rate, pollution  
20 level, waste concentration and biological activity to  
21 insure successful operation, it is my recommendation that  
22 the start up volume be specified more specifically to  
23 include the minimum design volume rather than a  
24 percentage of the design depth. Depending on the lagoon

1 configuration specification that requires 60 percent of  
2 the design depth may overflow the lagoon, costing the  
3 land owner additional pumping time and reduced storage  
4 capacity, or may under fill the lagoon, increasing the  
5 risk of a slow start up.

6 So in trying to minimize and to follow the  
7 standards that we have specified here, I would suggest  
8 that you look at the design volume rather than a fixed  
9 depth.

10 The other part of the proposed rules I would  
11 like to address is subpart G on setbacks. My testimony  
12 has dealt specifically with lagoon design standards  
13 needed to successfully design and start up a lagoon as it  
14 is associated with minimizing or eliminating the odor,  
15 potential odor risk. Minimal design criteria is based on  
16 achieving a high degree with minimum release of odors.  
17 Sludge accumulation is based on achieving storage volume  
18 or predicted storage length for the inert solids  
19 contained. Manure, wash water and rainfall storage  
20 volumes are what I consider working volumes, it must be  
21 removed on a design storage length. All of these design  
22 volumes take into consideration the potential for odor  
23 release and the objective to minimize odor release. It  
24 is recognized that it is very likely that some level of

1 odor may be generated due to the activities with  
2 livestock production. And undoubtedly, odor control is  
3 an important design and management issue considered on  
4 modern livestock sites. Goal of lagoon design criteria  
5 in siting requirements, minimize odor and impact of  
6 indoor/outdoor air quality.

7 I would support the fact that the rules do  
8 address these in sufficient detail. Subpart G  
9 establishes the recommended minimal separation buffer to  
10 protect air quality and to control the impact livestock  
11 reduction.

12 Several factors are involved in establishing  
13 appropriate setback distance. Some of these factors  
14 include lagoon design and waste handling methods,  
15 facility direction and distance of waste handling  
16 structures, and occupied structures and prevailing  
17 weather patterns.

18 I would like to speak in support of the  
19 proposed setback distances as they are referred to in  
20 these proposed rules and outlined in the Livestock  
21 Management Facilities Act. It is recognized that setback  
22 distances have a delusional effect to mix and blend odors  
23 generated from livestock production. Fresh air reduces  
24 the impact before it reaches a neighboring area or

1 populated area.

2 Lagoon design standards outlined in the Rules  
3 and Modern Management Practices, recommended setback  
4 distances provide an adequate separation between  
5 livestock production areas and neighbors and monilated  
6 areas. That identifies required separation for livestock  
7 units with more than 50 animal units and less than a  
8 quarter mile and half a mile from occupied non-farm  
9 residence and nearest populated areas. These are typical  
10 separation distances for this size livestock production  
11 unit. Typical recommendations in some local and state  
12 setbacks are based on the same setback distances, quarter  
13 mile. Clinton County, Indiana has established local  
14 setback distances for livestock productions of thousand  
15 animal units for less than a quarter mile of neighboring  
16 residences and successfully achieved a balance between  
17 the neighboring residences and agriculture production.  
18 It is reasonable, however, and practical to assume that a  
19 number of animals on one side and production volume can  
20 have an effect on the degree of dilution or separation  
21 distance needed; although; little data demonstrates.

22 Based on my observations, I would support the  
23 recommended incremental increases of 220 feet for every  
24 additional head. 440 for every additional head of a



1 thousand for a populated area with minimal setbacks of a  
2 half mile or one mile respectively for livestock greater  
3 than a thousand. 7000 animal units provides a suitable  
4 isolation buffer. It is worth noting, however, that  
5 these separation distances provide a suitable isolation  
6 and to minimize the frequency and of odor release.  
7 Setback distances can further enhanced by natural land  
8 shoulder belts, upward mixing of odors into the  
9 atmosphere, including pollution effect and lessening odor  
10 transfer. Based on the lagoon design standards  
11 prescribed in the proposed rules, this affords sufficient  
12 separation and dilution of sufficient odors, are  
13 consistent with other guidelines developed for livestock  
14 manure.

15 The two design standards referred to in the  
16 lagoon design standard section are supported by the  
17 research and design methods presented in The Rational  
18 Design Standard for Anaerobic Lagoons by Clyde Barth,  
19 Clemson University, which consider appropriate lagoon  
20 design standards to minimize odor production and release.  
21 The design loading rate and volume criteria presented in  
22 the referenced standards are consistent with these  
23 guidelines. The design volumes consisted by Clyde Barth,  
24 would achieve an odor detection frequency of less than 20

1           percent, establishes for determining a design. Proposed  
2           rules find the determination of the actual separation  
3           distances or livestock management structure and nearest  
4           resident of operated building. Setback distances have  
5           been established to provide for the desired dilution  
6           effect for reaching a neighboring resident. I support  
7           that all setback outer perimeter or nearest corner of  
8           each waste management of livestock facility to the  
9           nearest occupied resident or building. In some upper  
10          management, design waste lagoons are necessary to  
11          conserve and protect the water and air resources.  
12          Several factors must be considered, which include site  
13          selection, design with over handle and exposal systems,  
14          selection of equipment and conditions for land  
15          application and manure and proper management of. These  
16          proposed rules include recommendations towards achieving  
17          these objectives.

18                           I appreciate the opportunity speak in front  
19                           of this group and contribute to the development and  
20                           adoption of the sound environmental guidelines, design  
21                           location of livestock and waste treatment facilities.  
22                           Thank you.

23

24

MS. LOZUK-LAWLESS: Thank you.

1                   MR. HARRINGTON: I would like at this time to  
2                   move for the introduction of the written testimony as an  
3                   exhibit, recognizing that the oral testimony deviated  
4                   from it in wording, but the written document does include  
5                   more complete references than were read in the record.

6  
7                   MS. LOZUK-LAWLES: Thank you. I know you've  
8                   already given that to me, so let the record reflect that  
9                   the testimony of Dr. Michael Veenhuizen has been marked  
10                  as Exhibit Number 83 and entered into the record.

11                  Is that the correct pronunciation?

12  
13                  MR. VEENHUIZEN: Veenhuizen.

14  
15                  MR. HARRINGTON: Can I ask one follow-up  
16                  question?

17  
18                  MS. LOZUK-LAWLESS: Yes.

19  
20                  MR. HARRINGTON: It's your opinion that the  
21                  rules incorporate practical controls for odor and  
22                  available at this time?

23  
24                  MR. VEENHUIZEN: Yes, it would be my opinion

1           that the rules do specify and include as it relates to  
2           lagoon design and specifications of odor release and odor  
3           control. And that the setback distances, based on the  
4           current technology of livestock facilities are sufficient  
5           and adequate to provide that protection.

6

7                           MS. LOZUK-LAWLESS: Any questions?

8

9                           MR. POTTS: Bill Potts again. Doctor, I'd  
10          like to have a little more clarification on your  
11          justification for saying that the setbacks from a  
12          facility should be from that facility to either occupied  
13          home and instead of on the bottom of that property.

14                          Now if I live in Champaign and I am going to  
15          build a bar down the street from the high school, they're  
16          going to measure from the property line, they're not  
17          going to measure from the high school.

18                          Now I'm in the heart land of hogs, I smell  
19          this stuff. I have over 80 documentations that Mr.  
20          Taylor told me to do about a year and a half ago when you  
21          smell this stuff. And I know you say you're adequate,  
22          but you're not living there. You don't smell that 24  
23          hours a day. I have fed hogs myself. I'm not anti-hog,  
24          but I am --

1 MS. LOZUK-LAWLESS: Just make sure it's a  
2 question.

3  
4 MR. POTTS: Why don't you take that  
5 measurement from my property line? My farm goes up near  
6 136. My house is a quarter mile from it. I had two  
7 occasions in the last year on property that was sold  
8 across 136, the people bought the property, the hog smell  
9 came in, the house isn't going to be built. Another  
10 property, five acres, spend 30,000, got up there and boy  
11 the sale went to pot.

12 Now if I want to build up on the highway, let  
13 my son live in my farm house, I'm going to be a lot  
14 closer to that facility which is North of me. I don't  
15 see the reasoning that just because my house is in the  
16 middle of the farm, that setback should not come from the  
17 edge of my farm land. That's all I want to know, and I  
18 think there are a lot of other people that it doesn't  
19 make sense to.

20  
21 MS. LOZUK-LAWLESS: Doctor, would you like to  
22 address it?

23  
24 MR. VEENHUIZEN: My opinions regarding

1 setbacks are based on measurements and related to gas  
2 effusion and odor effusion in relationship to the design  
3 standards specified in the proposed rules and American  
4 technology associated with odor abatement from livestock  
5 facilities. As I stated, it would be -- would not be  
6 possible to state that we were going to have a zero  
7 emissions situation from any municipality.

8 So looking at practical controls and  
9 practical separation distances, it's my opinion, based on  
10 my experiences and my activities in relationship to odor  
11 transfer and odor abatement, quarter mile and half mile  
12 setbacks that are prescribed are sufficient to provide  
13 that buffer space necessary, recognizing that there will  
14 be times when odors will be generated from these  
15 facilities.

16  
17 MR. POTTS: Why isn't that from the boundary  
18 line?

19  
20 MS. LOZUK-LAWLESS: I think he already  
21 answered that. Thank you, Mr. Potts.

22  
23 MS. MANNING: Stabilization of lagoons at one  
24 of your hearings, that it takes two years really to

1           adequately stabilize the lagoon, and during that period  
2           of time that's when the odors are strongest.  Would you  
3           comment on that a little bit?  I may not be paraphrasing  
4           it but --

5

6                         MR. VEENHUIZEN:  To understand what you're  
7           asking, you say it takes two years to stabilize the  
8           biological activity of the lagoon?

9

10                        MS. MANNING:  I think the testimony was, it  
11           takes two years to really be functioning properly in its  
12           bacteriological capacity, and during that period of time,  
13           that's when the odor is filling up, when it was coming to  
14           life, two year duration, that's when the odor was  
15           strongest as well?

16

17                        MR. VEENHUIZEN:  That's one of the reasons I  
18           brought to the attention of appropriate start up and  
19           filling criterias, in that it's very critical to provide  
20           mental treatment volume, which is based on achieving that  
21           dilution on volume necessary to promote the treatment.  
22           And so it's been my experience, and the research and data  
23           collected on lagoon start up is -- start up is a very  
24           critical time, but it can be controlled.  The odor

1 release will be minimal to very little, if you follow a  
2 start up criteria of having minimum treatment volume,  
3 which is a design specified in the practice.

4 Now if you were starting with criteria, which  
5 is typically been used in administrative and design  
6 yields in a number of years, half or 16 percent of that  
7 design volume, there could be a potential for those  
8 kinds of odors to be generated. If you follow criteria  
9 of having that in place, then your odor release will be  
10 minimal, if not negligently.

11  
12 MS. MANNING: Are those all filed? They're  
13 really not?

14  
15 MR. VEENHUIZEN: The start up criteria are  
16 not in there. In the proposed rules, start up volume of  
17 60 percent of the design depth. And I offer a  
18 clarification, this may be in excess of the design depth  
19 for which would be less than a design depth or less than  
20 design volume, which would not be beneficial to the start  
21 up and to the odor release from that facility. So there  
22 are controls basically, simply put, if you have in place  
23 the minimum design before manure is added will eliminate  
24 any concerns over odor release.



1 MS. MANNING: You are familiar with NRCS  
2 document on odor as well? There's one of the numbers  
3 specifically on --

4

5 MR. VEENHUIZEN: Right.

6

7 MS. MANNING: I don't believe it's one of the  
8 documents, but it has been brought to your attention of  
9 these proceedings, but I want to -- can you give us the  
10 ASAE document and perhaps proceeding in these rules?

11

12 MR. VEENHUIZEN: Sure. It is referenced by  
13 title in the Engineering Practice 403.2, and it deals  
14 with best management practices and related to minimizing  
15 and reducing odor. So it's addressing siting locations;  
16 it addresses ventilation, air changes. It addresses the  
17 kind of good management or best management practices that  
18 would result in minimal or reduced odor release from  
19 livestock production facilities.

20

21 MS. MANNING: Thank you.

22

23 MS. LOZUK-LAWLESS: Board member Meyer.

24

1                   MR. MEYER: Thank you, madam Chairman. I  
2                   have several questions.

3                   Your presentation is silent on question of  
4                   gas collection. Is gas collection technically feasible?

5  
6                   MR. VEENHUIZEN: The question is, is gas  
7                   collection technically feasible. There are gases  
8                   released from the biological break down of organic waste.  
9                   Livestock manure qualifies as one of those. The  
10                  environmental parameters around the volume of gas  
11                  generated is very critical to how much gases will be  
12                  generated in a climate, such as Illinois, having such  
13                  seasonal differences or extremes. The gas released from  
14                  an earth structure, an earth structure with a cover on  
15                  it, would be quite minimal during a large portion of the  
16                  year. And so the case associated with covering a storage  
17                  for gas release may not be returned by the amount of gas  
18                  generated. And the Oklahoma study and North Carolina  
19                  studies with gas collection from earthen structures has  
20                  shown some promise relative to the temperatures and  
21                  environmental conditions that they enjoy. So it is  
22                  technically feasible to collect the gas. The question is  
23                  whether it's economically viable to collect the gas.

24

1                   MR. MEYER:  Would you care to furnish us some  
2                   information on your position on collecting gas in  
3                   Illinois?

4  
5                   MR. VEENHUIZEN:  My feeling on collecting gas  
6                   from a livestock production unit, it is one of -- I will  
7                   categorize it as the use of anaerobic digestive type  
8                   reference to Oklahoma type work have been used with  
9                   earthen base and covers.  There are anaerobic digesters  
10                  which are high energy and high maintenance, and input  
11                  type systems that are technically feasible for the use of  
12                  collecting gas and creating an energy source.  That the  
13                  question that faces our industry is related to the  
14                  implementation of that technology as one of the tools  
15                  associated with waste management systems.  And so the  
16                  technology is there but the economic liability and the  
17                  management level is afforded, that's not really lended  
18                  itself to be quickly attached to our industry.

19  
20                  MS. LOZUK-LAWLESS:  Board member Meyer, do  
21                  you have any further questions?

22  
23                  MR. MEYER:  Yes.  
24

1                   MR. VEENHUIZEN: A follow-up to that is, I  
2                   can offer a couple references related to the application  
3                   of anaerobic digestion to agriculture production to the  
4                   board.

5  
6                   MS. LOZUK-LAWLESS: In written comments  
7                   later?

8  
9                   MR. VEENHUIZEN: Written comments or  
10                  reference papers detailing what is involved in anaerobic  
11                  digest.

12  
13                  MS. LOZUK-LAWLESS: That would be very nice.  
14                  Before February 14th?

15  
16                  MR. VEENHUIZEN: Yes.

17  
18                  MS. LOZUK-LAWLESS: Board member Meyer.

19  
20                  MR. MEYER: Would you agree with the  
21                  statement that if you collect all the gas, that you  
22                  substantially eliminate the odor problem?

23  
24                  MR. VEENHUIZEN: I would agree with the

1 statement that if you have the structures in place to  
2 collect the gas, that you're also going to collect the  
3 volatile emissions that are associated with the odors.  
4 And if you're able to use that gas as an energy source,  
5 you will minimize or reduce the odor release from that  
6 storage system.

7 And as a follow-up to that, I would like to  
8 point out that in consideration to the setback distances,  
9 I have also looked at and have see evaluated there  
10 suitable as it relates to the livestock facilities as  
11 well as the line up application requirements.

12  
13 MR. MEYER: Would you be willing to factor  
14 into some considerations for environment control in your  
15 analysis of the collecting gas?

16  
17 MR. VEENHUIZEN: I can provide you some basic  
18 economic costs with the use of anaerobic digesters versus  
19 use of the well documented design standards for plumes  
20 that are shown in your proposed rules.

21  
22 MS. LOZUK-LAWLESS: Thank you. Board member  
23 Meyer, are you finished?

24

1 MR. MEYER: No.

2

3 MS. LOZUK-LAWLESS: I'm sorry.

4

5 MR. MEYER: I found it difficult in searching  
6 for anything that's been written on the subject, and  
7 haven't been able to obtain figures of which they ask  
8 each generous. Would you be willing to furnish the  
9 committee with your estimate of the gas that is --

10

11 MR. VEENHUIZEN: Data available would be  
12 related to the implement of normal digestive systems,  
13 which I would like to make clear is a -- in fact, a  
14 higher level technology adoption than the anaerobic  
15 produced standards we discussed in the proposed rules.

16 Yes, I can provide the board with those types  
17 of performance numbers associated with anaerobic  
18 digesting.

19

20 MR. MEYER: Thank you.

21

22 MS. LOZUK-LAWLESS: We've gone over 10  
23 minutes. Mr. Girard.

24

1                   MR. GIRARD: In your experience, do most of  
2 the odor problems come from the operation -- the proper  
3 operation of a lagoon or field application of the waste  
4 after its been stabilized in the lagoon?

5  
6                   MR. VEENHUIZEN: My experience, the two  
7 activities that you outlined are low odor emission and  
8 activities. And a more general response to that  
9 application of manures typically will have a higher odor  
10 release than the odors generated from a treatment or  
11 storage. And as I make that statement, I refer to the  
12 fact, how do we choose to land pipe manures and the  
13 reference to injection in a corporation are very  
14 important features for plain application manures.  
15 Recognizing a sense of the areas, this would be  
16 recommended or encouraged. The significance of that is,  
17 odor release units form a corporation, or ejection will  
18 be up to 10 times lower than surface application.

19  
20                   MR. GIRARD: And my initial question is: If  
21 you have an anaerobic digester system which is designed  
22 to collect the gas, how would you dispose of the  
23 remanence, the waste that was left afterwards?

24

1                   MR. VEENHUIZEN: Best way to dispose of it is  
2 land application, that neutralizes the nutrient.

3

4                   MR. GIRARD: Would there still be low odor  
5 associated with that?

6

7                   MR. VEENHUIZEN: There would be less odor  
8 associated with that. With any treatment -- successfully  
9 managed designed treatment system, you're going to  
10 stabilize the waste. In the anaerobic design we have, or  
11 that's proposed in your rules, the stabilized waste water  
12 would have minimal or no odor release from land  
13 application. It could be irrigated with little risk of  
14 no odor release. Effluent and organic mass involved in  
15 that, so there would be a reduced odor protection,  
16 stabilize the waste and provide with less noxious  
17 material for disposal or for utilization.

18

19                   MS. LOZUK-LAWLESS: Mr. Rao.

20

21                   MR. RAO: Anand Rao from the Illinios  
22 Pollution Control Board. You know you talking about  
23 anaerobic digesters, do these digest or can they be  
24 operated as a vast treatment?



1                   MR. VEENHUIZEN: They would require some type  
2 of a -- type of continuous loading. They're even more  
3 sensitive to loading and application than the anaerobic  
4 lagoon that you're familiar with from the earth basis.  
5 They need a continuous feed. They are sensitive and  
6 easily put out of balance. That's part of the basis for  
7 my comments relative to a higher level of management and  
8 control. Because we add technology to this, we increase  
9 the requirements of management control on these  
10 structures.

11

12                   MR. RAO: Okay. Thank you.

13

14                   MS. LOZUK-LAWLESS: Mr. Feinen.

15

16                   MR. FEINEN: The first question is odor  
17 controls. I think you answered some of the questions Ms.  
18 Manning asked. Did you think multiple flushing or  
19 increased flushing of a facility would increase odor  
20 control?

21

22                   MR. VEENHUIZEN: It has been demonstrated  
23 that what I refer to as a recharge flush or recharge  
24 gutter type system, where you're using a large volume of

1 water in conjunction, and these are typically designed  
2 and work very successfully in organic lagoons, that you  
3 propose in your rules, are returned to the building. To  
4 provide more dilute mixture in the building will reduce  
5 your odor. Odor releases from the building improve the  
6 indoor air quality and improves the sanitization  
7 characteristics of the building.

8 So in response to your question, yes.  
9 Additional flushing or recharge would have beneficial  
10 effect.

11  
12 MR. FEINEN: You use the term shelter belts  
13 and setbacks along with natural land forms, actually land  
14 forms and shelter belts to increase the mixing. Can you  
15 describe what shelters belts are that you are referring  
16 to? Is that trees?

17  
18 MR. VEENHUIZEN: A variety of trees or low  
19 growing bushes and shrubbery. The phenomenon that's  
20 occurring, the odor is moving from the source in a plume  
21 as referred to earlier in some testimony, and the  
22 objective with these land forms and the shelter belts are  
23 ongoing bushes to help break up that plume and enhance  
24 that dissolution effect.

1 MS. LOZUK-LAWLESS: Chairman Manning.

2

3 MR. RAO: I have one more question. Are you  
4 aware of other methods of odor control, like chemical  
5 additives?

6

7 MR. VEENHUIZEN: Yes.

8

9 MR. RAO: Are they effective? You know, you  
10 have information regarding the use of these other  
11 methods?

12

13 MR. VEENHUIZEN: Sure. The question is  
14 relative to the use of other additives or treatment for a  
15 control of odors or releases. There are a wide variety  
16 of products that are promoted for odor control, solid  
17 break down, and currently I would move with some caution  
18 in recommending a particular product.

19

20 Iowa State University and North Carolina  
21 State University are currently actively involved in  
22 evaluating several of these products under typical  
23 production parameters, and some of the results coming out  
24 of Iowa State University are very encouraging from the  
standpoint that they're seeing 65 to 85 percent reduction

1 in odor release. The one thing that is very specific or  
2 very obvious in their research results is that a lot of  
3 these products are site specific. And so it is my  
4 recommendation with any land owner or producer, that they  
5 select these on a trial basis to find the one that fits  
6 their particular parameters and site condition.

7

8 MR. RAO: Thank you.

9

10 MS. MANNING: I had a couple questions. I'm  
11 not an engineer myself; we have some engineering  
12 technical people here, but I don't want to get back to  
13 the office and not know the answer to these questions.

14 So you refer to on the last page, you're  
15 talking about the Clyde Barth study, which if you have,  
16 we would like to have it in the record.

17

18 MR. VEENHUIZEN: Okay, I can provide that to  
19 you.

20

21 MS. MANNING: And you refer to the  
22 achievement of an odor detection frequency of less than  
23 20 percent; I don't know what that means. The --

24

1                   MR. VEENHUIZEN: The parameter set forth in  
2                   that particular study, they evaluate different loading  
3                   rates of lagoon structures and looked at the frequency or  
4                   basically detecting odors over a time line. And the  
5                   values that are proposed in the rules would correlate  
6                   closely with a -- less than a 20 percent odor detection.  
7                   And as a designer and looking at that, recognizing that  
8                   it was very difficult to come up with a zero emissions  
9                   industry, because less than 20 percent emissions which  
10                  occurs typically during the Spring time with the turnover  
11                  on these, would be an acceptable design parameter  
12                  planning.

13

14                  MS. MANNING: How do they detect the odor?

15

16                  MR. VEENHUIZEN: There's a couple different  
17                  ways when the work was done with Clyde Barth's work. It  
18                  was a device that you would refer to as a syntometer and  
19                  syntometer is a plexiglass glass with two charcoal  
20                  filters and a couple nasal holes that you make a  
21                  subjective measurement based on the operator and the  
22                  amount of dilution necessary to dilute the odor or  
23                  offensive gas.

24

                  Currently, that has evolved to what we call

1 ophatometry, which is a very sophisticated technique  
2 collecting an air sample, evaluation panel and coming up  
3 with basically motor unit or dilution level in order to  
4 make this detectable.

5 Also work that is in experimental phases, and  
6 my last review of -- check on this is what we call the  
7 electronic nose; a piece of electronic technology which  
8 is suppose to tell us whether it smells bad or not. That  
9 shows promise but has not been perfected to base any kind  
10 of regulatory or statutory limits on it.

11  
12 MS. MANNING: The other phrase I have and is  
13 important testimony and we need to understand it, because  
14 I really don't want to have to ask you questions  
15 afterwards when I have to do them in writing. The  
16 sentence, the sludge storage life is typically five to 20  
17 years, what do you mean by sludge storage life?

18  
19 MR. VEENHUIZEN: I apologize for the  
20 confusion. That refers to, from a design standpoint, how  
21 long you want to go before you need to make remediation  
22 for removing the inert solids and also to deal with this  
23 very thick slurry. From study, the profile on organic  
24 lagoon, there's a very slick -- maybe slick as well as

1 thick slurry that is not promoting biologic activity and  
2 also an inert earth layer that isn't going to break down.  
3 And so the design numbers that are referenced in this  
4 practice deal with providing a buffer volume, that allows  
5 for a prediction that in five years, if it's a five year  
6 sludge life or in 20 years you start to encroach on this  
7 mineral design quality that is responsible for inert  
8 treatment. After a year period, it may require the land  
9 owner, or two, to actually harvest the sludge from the  
10 lagoon.

11

12 MR. THEESFED: Are you married?

13

14 MR. VEENHUIZEN: Yes, sir.

15

16 MR. THEESFED: Do you have any children?

17

18 MR. VEENHUIZEN: I have three children.

19

20 MR. THEESFED: Do you feel comfortable enough  
21 that you would like to move your family within a quarter  
22 mile of 12 million gallons of goo?

23

24 MR. VEENHUIZEN: If designed to the

1 specifications in the proposed rules, yes.

2

3 MR. THEESFED: Would you like to buy a house?

4

5 MR. VEENHUIZEN: Give me the address.

6

7 MS. LOZUK-LAWLESS: Doctor Flemal will wrap  
8 this up.

9

10 MR. FLEMAL: EP403.2, we don't believe that's  
11 been introduced.

12

13 MR. VEENHUIZEN: No one has provided that to  
14 you? I didn't mean to interrupt you. You don't have a  
15 copy?

16

17 MR. FLEMAL: That's right.

18

19 MR. VEENHUIZEN: I would welcome the  
20 opportunity to provide one.

21

22 MS. LOZUK-LAWLESS: Off the record.

23

24



1 (At this time an off-the-record  
2 discussion was had.)

3

4 MS. LOZUK-LAWLESS: I think we have one more  
5 question for Dr. Veenhuizen. Doctor Marlin.

6

7 MR. MARLIN: I'm John Marlin with the  
8 Department of Natural Resources. In your opinion, are  
9 lagoon standards recommendations in the proposed  
10 regulation generally consistent with those of the Midwest  
11 Plan?

12

13 MR. VEENHUIZEN: Yes.

14

15 MR. MARLIN: Okay.

16

17 MR. VEENHUIZEN: Yes, Midwest Plan Service  
18 would be consistent with the design standards in the  
19 proposed rules qualification. The numbers are presented  
20 in the fashion that you would not be able to clearly  
21 identify all the design volumes that are specified in the  
22 rules.

23

24 MR. MARLIN: In terms of the Livestock Waste

1 Facilities Handbook, I'm looking at page 2.7 under  
2 control of odors and gases leaving livestock area, and  
3 there's -- one of the first things to do, select a site  
4 where odors will create the fewest problems, locate at  
5 least one-half mile away from neighboring houses. Do you  
6 agree with that statement in relation to the quarter  
7 mile setbacks from residences that you cited from the  
8 county in Iowa and places like that?

9  
10 MR. VEENHUIZEN: The one-half mile setback  
11 that is referenced in the Midwest Plan Service 18,  
12 Livestock Waste Facilities Handbook, is of the consensus  
13 opinion of several committee members and discussion  
14 relative to what setback should be, would vary from --  
15 anywhere less than a quarter of a mile up to  
16 three-quarters of a mile is a consensus opinion of that  
17 committee. A half mile was suggested for buffing in that  
18 particular handbook. That does not change my opinion  
19 relative to the odor -- transfer odor dispersion from a  
20 lagoon designed to meet the specifications outlined in  
21 your proposed rules.

22

23 MR. MARLIN: Thank you.

24

1 MS. LOZUK-LAWLESS: Are those all the  
2 questions then? Thank you, Dr. Veenhuizen.

3

4 MR. HARRINGTON: I call Jamie Wilright,  
5 please. We're going to do this a little bit by question and  
6 answer. So I'll speak up, and if I can't be heard, somebody  
7 raise their hand and the hearing officer will correct me.

8

9 EXAMINATION OF JAMIE WILRIGHT

10 BY MR. HARRINGTON:

11

12 Q Are you the same Jamie Wilright who previously  
13 testified in these proceedings and gave your background  
14 qualifications?

15 A Yes.

16 Q Have you had occasion to look at the definitions of  
17 the proposed regulations, particularly the definition relating  
18 to livestock pasture operation?

19 A Yes, I have.

20 Q Is this definition clear to you as to what is  
21 encompassed within its meaning as opposed and subject to the  
22 examination provided for in the act?

23 A It has created some confusion with some producers  
24 in the country.

1 Q Could you explain that, please?

2 A The act by statute defines the -- could be defined  
3 feeding operations, and then went further to define what a  
4 pasture operation is. And some of the producers who don't  
5 clearly fit into one or the other definition, that's caused some  
6 confusion with where they are in their particular operations.

7 A lot of this relates to how calf producers, who  
8 are triangle operations, but through part of their management  
9 and part of their management in feeding, those cattle in the  
10 wintertime or in weaning those calves in the Fall and bringing  
11 those in to certain locations, and the length of time they are  
12 there, as well as some weather occurrences as effected in the  
13 Dakotas this winter, where normally they pasture all winter.  
14 However, with the situation with the weather, those animals --  
15 you know, let's face it, they're not out roaming and able to  
16 eat, are they all of a sudden a confined feeding operation?  
17 There's some confusion there. It was brought to my attention,  
18 and our thoughts were to define by statutes what the confined  
19 feeding operations are. Why do we need to define, draw another  
20 box, what they are not. It seems we're just trying to regulate  
21 the confined feeding operations.

22 Q Does the language of the proposed definition,  
23 particularly subpart A, referring to crop vegetation, foliage  
24 growth or post residues that are grown in place sustained in the

1 normal growing season over a substantial portion of the latter  
2 facility contribute to this confusion?

3 A Yes, it can.

4 Q In what way?

5 A The substantial -- what is a substantial portion of  
6 the lot, what happens in the wintertime, what happens in the  
7 weather occurrence when these people are forced into these  
8 situations. I think it's the intent -- what originally started  
9 with the task force and the legislation was to exempt all those  
10 people, but in trying to define that, we may have included or at  
11 some point down the road, depending on who is administering the  
12 rules, may have included some people that we may not want to; it  
13 was not the intent.

14 Q You worked on the task force. You're also involved  
15 in legislation, is that correct?

16 A Yes, I did.

17

18 MR. HARRINGTON: Those are the only questions  
19 we have.

20

21 MS. LOZUK-LAWLESS: Any questions for Mr.  
22 Wilright? Okay.

23

24 MS. MANNING: We've been talking about the

1           Livestock Facilities Task Force. I don't believe we have  
2           the task force report into evidence at all yet, and I  
3           think it's important we do. In fact, we have the  
4           minority report in evidence, and I thought I would let  
5           you know that.

6

7                         MR. HARRINGTON: We appreciate the comment,  
8           and we'll do so.

9

10                        MS. LOZUK-LAWLESS: Thank you. And we'll now  
11           continue with the testimony of Mr. Fisher.

12

13                        MR. FISHER: My name is Harvey Fisher. My  
14           family has raised crops on our 144 acre farm since we  
15           bought it in 1962. We've also raised hogs on and off  
16           during that time. The farm is located in Woodford  
17           County. I do not have any documentation, but I would bet  
18           that our land has more terraces and waterways per acre  
19           than any other farm in the county. Dad was a firm  
20           believer in soil conservation. When he passed away more  
21           than a year ago, my mother became responsible for the  
22           land. She has mentioned that she would like to see less  
23           artificial fertilizer used to grow crops. So she  
24           supported my idea of building a finishing hog facility so

1 we could use the manure as fertilizer and make the land  
2 more valuable.

3                   Since the beginning of the project, I have  
4 wanted to do things right. My original plans for the  
5 facility were to begin with one 1200 head finishing unit  
6 and to add a second 1200 head finishing unit in the  
7 future. One building has the capacity for 480 animal  
8 units. When I compare this to other producers, I think  
9 it's at least average and probably even small.

10                   I planned on using a two stage lagoon for two  
11 reasons: The first reason is to capture the solids and  
12 allow the water to flow to the second stage. This water  
13 would have fewer pathogens and be used to recycle in the  
14 flush system of the building. The second reason I chose  
15 a two stage lagoon was to reduce odors. Although each  
16 person may disagree on how strong odor is, I believe that  
17 anyone who walks into or lives around a building with  
18 fans running constantly and manure that's been building  
19 up in pits for months, can tell the difference between  
20 this and a well managed lagoon. The pits would smell  
21 much stronger than the lagoon. A flush system building  
22 and lagoon provide a much improved environment for the  
23 animals and the workers, not to mention your neighbors.  
24 I'm afraid that this act will encourage more builders to

1 provide deep pits, which I believe smell much stronger,  
2 unless the regulations give the Department of Agriculture  
3 the flexibility to alter design requirements as the act  
4 states.

5 As I mentioned earlier, I wanted to do things  
6 right from the beginning. I contacted the Natural  
7 Resources Conservation Service in our county to take soil  
8 borings and assist with the design of a two stage lagoon  
9 that would be above ground. The technical engineer for  
10 the region of the NRCS took the soil samples on September  
11 6th, and said the plans would take two to three months to  
12 draw up. By early October, NRCS said the site was  
13 approved for the two stage lagoon, but the plans were not  
14 yet drawn up.

15 Since NRCS said the site was approved, I  
16 began plans to dig a well and start excavating. By  
17 November 12th, I was excavating for the building. I  
18 already had \$70,000 invested in the building. NRCS  
19 called the first week of December, said they could not  
20 design plans for the lagoon because the building would  
21 hold more than 300 animal units. In other words, NRCS  
22 said they would not -- could not assist anyone with more  
23 than 300 animal units. At that point, they said that  
24 they did find some aquifer material in the second -- for



1 the boring in the second stage lagoon.

2 Since I already had money invested in the  
3 project, and I still wanted to do the right thing, I  
4 contacted Glacier Environmental, and it's a private firm,  
5 to take soil borings and give their advice on the lagoon  
6 siting. The couple that represented Glacier  
7 Environmental are a geologist and a hydrogeologist. They  
8 verified that alluvium was located in the second stage  
9 lagoon boring. They also recommended that the material  
10 be removed from the lagoon, and that the lagoon be made  
11 deeper, because the glacial till beneath the alluvium  
12 deposit would make a good base for a properly constructed  
13 lagoon. A copy of their letter verifying their findings  
14 and a geologic cross section is attached to this  
15 testimony.

16 Although I was happy for their advice, I paid  
17 \$2,593 for the two borings, and I have another bill on my  
18 desk for approximately \$1,700 for engineering and  
19 development fees.

20 Since receiving Glacier Environmental's  
21 advice, I spoke with another agricultural engineer. He  
22 agrees that the alluvium deposit could be removed by  
23 digging out the deposit to the center of the berm on that  
24 side of the lagoon, then filling in the soil and

1 recomacting the interior wall.

2 My plans have changed now to have a single  
3 stage lagoon in the ground. I hope to move ahead  
4 quickly, so I can hope to earn back my investments.

5 My situation is not unique. That is why I  
6 think it is very important for the Department of  
7 Agriculture be granted the authority in the regulations  
8 to authorize this sort of change in design.

9 Thank you for letting me testify.

10

11 MS. LOZUK-LAWLESS: Thank you, Mr. Fisher.  
12 Would you like to submit those?

13

14 MR. FISHER: Yes. I have copies, do you need  
15 more than one?

16

17 MS. LOZUK-LAWLESS: No, one is fine. Let the  
18 record reflect, Mr. Fisher's testimony with attached  
19 exhibit, has been marked as Exhibit number 84.

20 Are there any questions for Mr. Fisher?

21 Okay, thank you very much.

22

23 MR. HARRINGTON: If you don't deem it  
24 confidential, could you give us some idea of how much

1 money you already put into this project?

2

3 MR. FISHER: Yeah, I've got practically  
4 \$70,000 in.

5

6 MR. HARRINGTON: Thank you.

7

8 MS. LOZUK-LAWLESS: Mr. Goetsch.

9

10 MR. GOETSCH: You were present this morning  
11 when the Department gave its proposal to modify the  
12 interior slope of the berm or interior berm slope to not  
13 more than two to one. Do you have any opinion as to how  
14 that might effect your facility or whether you would be  
15 in favor of that change?

16

17 MR. FISHER: Yeah, I think it would be real  
18 appropriate, since as close as we can calculate, cutting  
19 down the berm on the inside would lose approximately 50  
20 percent less ground. I mean, 50 percent less ground that  
21 I would have to take out of production for other crops.  
22 And being that the lagoon would be in the ground, it's  
23 not going to be a built up berm, it should provide plenty  
24 of strength. I think it would be a good savings of the

1 land that I would have to use.

2

3

MS. LOZUK-LAWLESS: Mr. Boruff.

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MR. BORUFF: If I could ask a question as it pertains to another cost that you may incur as you're looking at the design of this synthetic liner, and do you have any cost which you might have estimated which you care to share with the board?

MR. FISHER: Yeah, one of the plans we looked at was installing a synthetic liner, and the engineer estimated between 40 and \$50,000, which again would be another 25 percent of what the project is going to cost.

MR. BORUFF: Could you share with us the proximate dimensions you're considering?

MR. FISHER: 200 by 200, top to top on the berm. Some 272,000 cubic feet.

MR. BORUFF: Thank you.

MR. FISHER: Plus two foot freeboard on

1           there, so actually it's a little bigger.

2

3                           MS. LOZUK-LAWLESS: Any further questions?

4           All right. Thank you.

5

6                           MS. MANNING: Did the EPA have any questions?

7

8                           MR. WARRINGTON: No.

9

10                          MR. HARRINGTON: Could we just present some  
11 documents we promised the board earlier?

12

13                          MS. LOZUK-LAWLESS: Is it in reference to Mr.  
14 Fisher?

15

16                          MR. TABOR: Documents that you requested at  
17 the Mt. Vernon hearing.

18

19                          MS. LOZUK-LAWLESS: And you're leaving now?

20

21                          MR. HARRINGTON: No, we can wait.

22

23                                           (Witness sworn.)

24

1                   MR. THEESFED: I appreciate your people  
2                   spending all this time on this today. I'm here because  
3                   I'm concerned as a resident, as a foster parent, as a  
4                   volunteer fire chief about the setbacks and the size of  
5                   the lagoons. I'm about to have a lagoon a quarter mile  
6                   from my home, but according to all the experts today,  
7                   assured me that it won't be any problem.

8                   I have four children of my own, we sometimes  
9                   care up to four more foster children. The day those  
10                  assurances go wrong, I'll send the kids over to your  
11                  house when they want to go outside and play.

12                 There are no provisions for any kind of  
13                 compensation for emergency response units, providing that  
14                 this lagoon should have any problems, or equipment loss  
15                 or anything else. Illinois statutes right now for  
16                 hazardous materials will reimburse rural fire departments  
17                 or paid departments for any kind of equipment that's lost  
18                 on a call for hazardous material, and I think something  
19                 should be considered about being done for that too; some  
20                 kind of response, some kind of rescues because any kind  
21                 of equipment that's going to be used is going to be  
22                 considered contaminated.

23                 I hope the judgment of the board and people  
24                 here today will work out so that they can come to my

1 house and drink a glass of water out of my water facet  
2 and we can sit on the patio and enjoy the breeze.

3

4 MS. LOZUK-LAWLESS: Were there any questions  
5 for Mr. Theesfed? Okay. Thank you very much for your  
6 testimony.

7

Now Loraine.

8

9

(Witness sworn.)

10

11 MS. MARTOGLIO: I'm Loraine Martoglio and I  
12 live at 16224 North 97 East Road, Oakwood, Illinois. I  
13 have lived there for 49 years on two and a half acres.  
14 I'm 81 years old. I'm going to try to put nine years of  
15 frustration in a short speech.

16

17 My problem is Parks Pig Palace located less  
18 than an eighth of a mile from my house. He owns 15 to 20  
19 acres and proceeded to build about four structures on the  
20 same, and under the Grandfather Law, he can do as he  
21 pleases. At one time, he had hog manure at least six  
22 inches deep on the acre.

22

23

24

I complained to Mr. Steve Laser at the  
Vermilion County Health Department, as the wells in the  
neighborhood drain from 10 to 40 foot deep. I was told

1           it wasn't a health problem but agriculture. Then he  
2           began burying his dead hogs. They told me that it was  
3           miserable for a farmer to bury dead hogs on his property.  
4           We finally contacted Mr. Carl Emic in the Springfield  
5           Dead Animal Control. He came down, made them dig some of  
6           the dead hogs up and they were lying in the ground water.  
7           He took pictures and told them never to do that again.  
8           But several months later he buried hogs, then he decided  
9           he wanted them in a different place. He took a Bobcat  
10          with dead hogs over it like wet noodles, took them to a  
11          hole in the ground and he set fire to them. We had a  
12          video of that. Mr. Emic took him to court and he was  
13          fined \$212. He didn't show up, just his lawyer. We were  
14          told, as he had pleaded guilty, the next time could be  
15          worse.

16                           Up to now, there's been no next time. He has  
17          dug holes since then. He continues to stock pile manure  
18          along the entire back of his building at least five to  
19          six feet tall and they fall over into the field.

20                           Over Labor Day last year at night, they set  
21          more hogs on fire. We again called Springfield and  
22          talked to Mr. Holstein. I asked Mr. Holstein pointblank  
23          if he called them each time he came. By the time he got  
24          there, they covered up the funeral parlor and manicured



1 the manure pile like they had never done before. Mr.  
2 Emic arrived two days later and contacted the rendering  
3 plant; they were so rotted, they wouldn't take these  
4 hogs.

5 I went to two county board meetings. This  
6 company hauls in hogs from Florida, North Carolina,  
7 Kentucky, et cetera. He has about a dozen dead hogs  
8 every time a trucker arrives. These hogs are never  
9 inspected to find out what killed them. My son had hogs  
10 at one time and they carried air syphilis and  
11 Trichomonas which effect the intestine and muscle. We  
12 had a man die from this several years ago. The  
13 Vermilion County Health Officer and Illinois Public  
14 Health Department were advised of this hog operation.  
15 Mr. Emic told them they had already surprised Mr. Quo of  
16 dead hogs to the amount of acreage. They asked Mr.  
17 Lacker of the county board if he could do anything, he  
18 said no, just fine them. I thought that what was -- why  
19 make laws when they didn't obey them. They were to be  
20 compacted with six inches of soil. From the vultures  
21 sitting on top of the pile, I knew they weren't digging  
22 six inches for their meal.

23 Law says manure is to be put on impermeable  
24 material when stacked, and another is to be incorporated

1 the same day. The upshot of the board meeting, it could  
2 do nothing without zoning on it. I had two books of  
3 rules about a half inch thick, and regulations for a hog  
4 farm and all this, and I said, if you can't enforce  
5 these, how do you expect to enforce zoning laws. If you  
6 have all these laws on the book that you people talked  
7 about today and you're trying to enforce them and we  
8 don't have anybody to enforce them, what is our next --  
9 what do we do.

10 I've got a stack of letters that high that  
11 are written to Springfield, to Mr. Emic, Mr. Austin, Dr.  
12 McDonald. And the last time I called Mr. Austin that one  
13 time, Mr. Emic told him to get a refrigerator unit to put  
14 the dead hogs in till they collect them. This unit sat  
15 there with the doors open for two weeks. I called Mr.  
16 Austin, he said well, you don't know how lucky you're  
17 that he's got that refrigerated unit. He's sitting in  
18 Springfield and telling me I'm lucky. So every once in  
19 awhile he has a dead hog lying out front. We've seen  
20 neighborhood dogs feeding on them. One day they had a  
21 Bobcat out trying to pick up crippled hogs in the bucket  
22 and the hogs kept falling out; they used a Bobcat to mash  
23 them and throw them over.

24 A driver tells us they have rats as big as

1 cats in their feed bin. Springfield tells me they have  
2 no vermin laws for this. My county board member tells me  
3 I'm fighting agriculture and can't win. The members tell  
4 me I'm fighting money. I feel as an American citizen, I  
5 have as much right as these people.

6 My husband and I worked until 62 and put  
7 three boys through college. And after my husband's death  
8 nine years ago, I find my golden years ending up in a  
9 pile of manure. The Mr. Parks says it's only bedding.  
10 If it looks like manure and smells like manure, I say  
11 it's manure.

12 Thank you for letting me vent this, and if  
13 you can recommend somebody who will enforce your laws, I  
14 would appreciate it.

15  
16 MS. LOZUK-LAWLESS: Loraine, do you want to  
17 enter those pictures?

18  
19 MS. MARTOGLIO: Yes, I do. I spent hundreds  
20 of dollars on pictures. And this is from North Carolina.

21  
22 MS. LOZUK-LAWLESS: Are there any questions  
23 for the witness? Okay, thank you.

24 I will admit the article from North Carolina,



1 frustration.

2

3 MS. MANNING: Who is Mr. Emic again?

4

5 MS. MARTOGLIO: He's in the Dead Animal  
6 Control, and he was really helping us and then all of a  
7 sudden his boss came to down and they sat in my living  
8 room -- well, I better not go into that.

9

10 MS. MANNING: Who is Mr. Austin?

11

12 MS. MARTOGLIO: He's Mr. Emic's boss.

13

14 MS. MANNING: But you don't know what  
15 department?

16

17 MS. LOZUK-LAWLESS: Mr. Boruff.

18

19 MS. MARTOGLIO: If I had known him sooner, I  
20 would have gotten on him.

21

22 MR. BORUFF: I'm sorry?

23

24 MS. LOZUK-LAWLESS: She said she wished she

1 had known you earlier, she would have got on you.

2

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MR. BORUFF: Mr. Emic and Mr. Jim Austin are both employees of the Illinois Department of Agriculture, worked in the Animal Welfare. So for the activities regarding Animal Welfare and Illinois Dead Animal Disposal Act, both of those gentlemen report to me. So I'll make sure on Monday to look into your file. I may want to ask you some particulars, in terms of names and addresses.

MS. MARTOGLIO: I would be glad to furnish them.

MS. TIPSORD: You claim that they found dead pigs in the ground water?

MS. MARTOGLIO: Yes.

MS. TIPSORD: Was there any indication that the ground water itself had been contaminated by that?

MS. MARTOGLIO: I don't know. Mr. Emic took pictures of that; he thought it was worthy, and he told

1           them not to do it again. But it takes like two days for  
2           Mr. Emic to get there, and by that time they go out and  
3           spray the maggots and the whole bit. We've seen -- every  
4           time they bring a truck in, they have at least a dozen  
5           dead hogs, which they put in a little pen there and you  
6           can see them above the gate. They did put a gate up so  
7           we couldn't see so well.

8  
9                           MS. TIPSORD: And your drinking water is from  
10           a well?

11  
12                          MS. MARTOGLIO: Well, I buy mine. I buy all  
13           my drinking and cooking water; I don't trust them.

14  
15                          MS. LOZUK-LAWLESS: Okay. No further  
16           questions. Thank you for your testimony.

17                          And now Lynn McLinden.

18  
19                                           (Witness sworn.)

20  
21                          MR. MCLINDEN: First, let me say, I only  
22           started following this whole issue through my local  
23           newspaper coverage beginning about a month ago, when they  
24           first started reporting on a proposed Heartland Pork

1 Enterprise for Veedersburg, near Veedersburg, Indiana  
2 that caught my attention, because I live about 35 miles  
3 from there. And it appeared that Indiana, the county  
4 where Veedersburg is, has no zoning. And so the poor  
5 folks in the area who would be impacted with very little  
6 recourse, except to mobilize public pressure through  
7 their elected representative to exert some muscle or  
8 whatever possible. And through that route, ultimately  
9 Heartland Pork Enterprise did withdraw their application  
10 for that facility. But my understanding is, they have  
11 the right to resubmit at any future time. So I expect  
12 eventually that might occur.

13 All right, so that raised my antenna. And  
14 just about a week or two after that, it appeared that  
15 near Rankin, which is the far Northwest corner of  
16 Vermilion County where I live, Heartland Pork Enterprises  
17 has signed a purchase offer contingent upon gaining a  
18 permit approved by your board to build this sort of  
19 mega-farm for large scale hog confinement. And subject  
20 it that board approval of the permit, my understanding is  
21 the sale of 160 acres will go through Hoopston. An  
22 attorney who only recently bought the land, apparently  
23 did a quick flip. So that detail may or may not interest  
24 you.



1                   I have subsequently started paying more  
2                   attention to the newspaper coverage. It appears --  
3                   somewhere I read recently that the Heartland Pork  
4                   Enterprise Company is based in Alden, Iowa. Apparently  
5                   an Iowa corporation which is apparently gotten a lot of  
6                   going facilities in operation already in Illinois. We've  
7                   heard from Bill Emmett in McLean County, and evidently  
8                   there's one near Paris, Illinois, as well as some in  
9                   Indian and probably other states. So they're a pretty  
10                  big concern. I suspect they have a lot of resources to  
11                  try to influence the regulation process. I'm not -- I'm  
12                  pretty naive but not totally naive. And I understand  
13                  that there's money involved in the pork industry, and  
14                  Illinois does want to maintain, I suppose, a viable pork  
15                  industry, but I would suggest that that not be the total  
16                  deciding factor in the following sense. If you take the  
17                  several hundred million dollars or whatever they  
18                  estimate the pork industry generates each year in  
19                  Illinois and divide that by the total economic activity  
20                  in Illinois each year, I think you have a pretty small  
21                  factor. So I don't think the economic impact and  
22                  associated low level jobs that would be produced in  
23                  these, I don't think that should be a prominent factor in  
24                  this overall issue.

1                   It appears to me what we're facing is a new  
2                   type of economic entity in these mega-farm confinement,  
3                   livestock confinement operations. And this new type of  
4                   economic entity, I've been trying to think, how would I  
5                   best formulate a word for it, and the best I can come up  
6                   with is factory. Now we normally think of factory as  
7                   producing intimate objects, but this happens to be a  
8                   biologic factory, public use and public policy is  
9                   equipped to deal with this juggernaut that is already  
10                  steam rolling the public. And I use stark language I  
11                  realize, but that's effectively how I see the situation  
12                  now. We're facing a well organized aggressive lobbying  
13                  effort of a fairly narrow economic interest group, which  
14                  is running circles around the public's welfare.

15                  And it looks to me, I was kind of not paying  
16                  attention last Winter, last Spring, when the Illinois  
17                  Assembly passed this law, and I realize now you folks  
18                  apparently are stuck with a structure in the law which  
19                  you're faced with implementing through the regulations  
20                  that you adopt. I realize that's not -- doesn't give  
21                  you a whole lot of choice; maybe you would like more,  
22                  maybe less, but it does kind of restrict your options,  
23                  I'm very well aware.

24                  Know my feeling as a naive but interested

1 public citizen, what can we do at this point. And I'm  
2 really at a loss. I heard a lot of interesting technical  
3 detail from a variety of witnesses today and I learned a  
4 lot. And the details of individual technicalities that  
5 really I'm not equipped to critique. It would take a lot  
6 of study for me to form an opinion on those particulars.  
7 This is a new type of economic entity existing. Public  
8 policy is not yet equipped to protect the public interest  
9 as opposed to responding to the pressures exerted by the  
10 narrow economic lobbying groups. So there's a basic  
11 problem, and all I can say is, I would second the  
12 eloquent comments by Bill Emmett earlier this afternoon,  
13 we need industrial strength regulation. The best,  
14 apparently, that we can do under these circumstances, is  
15 to hope that you folks will come through with as tough  
16 and meaningful a regulation to kind of hold the fort  
17 until we can do better. Maybe through some follow a long  
18 legislation in Springfield.

19 Thank you very much.

20

21 MS. LOZUK-LAWLESS: Thank you, Mr. McLinden.

22

23 MR. FISHER: My facility would produce  
24 approximately 3,000 pigs a year and maybe add 20 percent

1 to my income, would you consider that a hog factory?

2

3 MR. MCLINDEN: Approximately how many pigs?

4

5 MR. FISHER: Approximately 3,000.

6

7 MR. MCLINDEN: How many would be on site at  
8 one time?

9

10 MR. FISHER: 1,200. Would you consider that  
11 a hog factory?

12

13 MR. MCLINDEN: I heard one of the  
14 definitions, the figure 800 in the past as what's  
15 considered large, and what's proposed in Rankin is 3,200.  
16 Now you're talking about 1,200, so I guess between 800  
17 and 3,200, that sounds like it's fairly small. But I  
18 heard of other locations, eight or 9,000.

19

20 MR. FISHER: You propose to limit corporate  
21 operations from moving into the state, which at this  
22 point it's really hurt my operation. I mean, I spent  
23 nearly a thousand dollars which I wasn't planning on  
24 spending, and it's not resolved yet, and I'm not a

1 corporate operation.

2

3 MR. MCLINDEN: Okay, I would say -- my gut  
4 instinct is, you're probably a relatively small player in  
5 this current situation.

6

7 MR. FISHER: What would you propose?

8

9 MR. MCLINDEN: I don't think the rules should  
10 treat all the players, from largest to smallest,  
11 necessarily the same. My own instinct, it might be quite  
12 appropriate to develop a tier system based on the total  
13 number of hogs in the facility at a given time as a basis  
14 for defining categories, and then adopting regulations  
15 that treat the really mega operations with a somewhat  
16 more stringent oversight philosophy than the small family  
17 guy, which I would be inclined to think that you seem  
18 like that's where you would fit.

19 Now let me mention also, I forgot earlier,  
20 Heartland Pork Enterprises seems to be based in Alden,  
21 Iowa, and I read -- did I already say this, that Iowa has  
22 apparently either a moratorium or an outright ban on  
23 additional huge livestock confinement operations. I'm  
24 not sure if that's actually a fact or not, but one of the

1 witnesses earlier has provided the committee or the board  
2 with what they described as a summary of these various  
3 state laws, including Iowa. I would suggest that this be  
4 looked into very carefully, if in fact they do have a  
5 moratorium or outright ban. I suggest that in the -- in  
6 the interest of saving ourselves from having to do --  
7 placate a lot of effort and reinvent the wheel, I would  
8 think the pork industry in Iowa has at least as much  
9 influence there as the pork industry does in Illinois.  
10 In that setting, if in true climate the Iowa political  
11 situation has found it possible to take such stern  
12 measures as a moratorium or outright ban, it suggestions  
13 to me there's some real problems with the huge operation,  
14 the huge scale operation, that perhaps we really ought to  
15 look carefully at and adopt regulations that will be  
16 responsible.

17

18 MS. LOZUK-LAWLESS: Thank you. Are there any  
19 questions?

20

21 MS. MANNING: You talked about a tiered  
22 approach. Have you given any thought of what your tiered  
23 approach would be?

24

1                   MR. MCLINDEN: I don't yet have a good enough  
2 feeling, but I do think it might be something to help  
3 differentiate between the small guy and the big out of  
4 state corporation.

5

6                   MS. LOZUK-LAWLESS: Okay. Thank you.  
7 Is there anyone else here that wanted to give  
8 testimony? Okay.

9

10                                           (Witness sworn.)

11

12                   MS. CAMBRIN: Good evening. My name is Kim  
13 Cambrin, and I live at 2736 East 3700 North Road in  
14 Rankin, Illinois. I never thought I'd ever be here.  
15 Three weeks ago, I sat in my living room doing a thousand  
16 piece jigsaw puzzle and had absolutely no idea what a  
17 large hog confinement facility was all about. I do now.  
18 And there's a lot that I don't know yet either.

19

20                   One of the things that I'd like to tell the  
21 board is, once a community finds out about a facility  
22 like this coming into their area, there's this very small  
23 window of time to educate yourselves. And the amount of  
24 information that you have to take in and digest and  
understand are not only news articles but very technical,

1           you know, information that would take me personally a  
2           long time to learn and understand. That's one of reasons  
3           why I'm here today before you is, because we do have a  
4           very small window of time. I feel that this board is the  
5           voice of people like me, that, you know, can't cram all  
6           this in in such a short period of time.

7                         I'll tell you that I first found out about  
8           this from a news article, not even one of my neighbors.  
9           And the only reason he found out about it was, he saw a  
10          backhoe going down his road, which was very unusual for  
11          that time of year. So then we started asking questions.  
12          Well, this is how we found out about Heartland Pork  
13          Enterprises coming into our neighborhood. We had to  
14          organize very shortly a meeting so that we could let  
15          every one hear our concerns. There were too many people  
16          talking in little groups, so we did -- we had a meeting  
17          last Tuesday. We also invited the company to come and  
18          speak, because we wanted to hear the good, you know, and  
19          the bad. We wanted to hear everything so that we could  
20          make an informed decision on our feelings and whether we  
21          wanted this in our backyards. And I have to honestly  
22          tell you that after the meeting, I don't want it in my  
23          backyard.

24                         I don't believe that the representatives that



1           they sent were ready for us; were ready for our  
2           questions. I think the most disturbing thing to me was  
3           when we talked about lagoons and possibly putting in  
4           monitoring wells around that lagoon to monitor leakage  
5           for pollution. The representatives were asked if it  
6           would make the town feel better if they went above and  
7           beyond what was strictly required of them, if they would  
8           be willing to do that; the answer was no. Just on that,  
9           I'm sorry.

10                         I would like to submit -- this is from the  
11           Village of Rankin, it's a resolution that was written up  
12           concerning this issue and how the town feels about it. I  
13           would also like to submit to you and just read a little  
14           bit to you, which is a petition that has been signed by  
15           the residents and the area residents. We, the  
16           undersigned areas are concerned with the quality of life  
17           in and around the Village of Rankin, Illinois, population  
18           619, Butler Township, Vermilion County, as well as  
19           surrounding county neighbors. Most immediately, our  
20           concern is with the proposed confinement swine operation  
21           by Heartland Pork Enterprises of Alen, Iowa, located  
22           approximately two miles Southwest of Rankin. We're in no  
23           way attacking our own local family owned, small scale  
24           livestock operations; rather, we're extremely concerned

1           about the ground water contamination. Air pollution,  
2           adverse economic impacts, road damage and potential  
3           health problems presented by the proposed large scale  
4           industry's reconfinement building of Heartland Pork  
5           Enterprises. We're especially concerned -- are concerned  
6           that such an industry should be allowed to locate in  
7           Vermilion County would destroy the value salability of  
8           our land, home, our major resource. We request the  
9           Pollution Control Board to set standards that protect our  
10          environment and our quality of life. I have 10 sheets at  
11          15 per sheet that we would like to submit to you from the  
12          area residents.

13                         I would like to tell you, if there's any  
14          way -- I think there should be some way a community  
15          should know well in advance of this type of  
16          nontraditional farming coming into your communities.  
17          Three weeks, and that's not enough time for us to  
18          understand everything that's going on. It's not enough  
19          time.

20  
21                         MS. LOZUK-LAWLESS: Thank you very much. Let  
22          the record reflect the Resolution 221 from the Village of  
23          Rankin has been marked as Exhibit 89 and entered into the  
24          record.

1                   Also, the petition to the Illinois Pollution  
2 Control Board, 11 page document, has been marked as  
3 Exhibit 90 and entered into the record.

4

5                   MS. CAMBRIN: Can I say one more thing?

6

7                   MS. LOZUK-LAWLESS: Yes.

8

9                   MS. CAMBRIN: Another thing really really  
10 apparent to me, that this meeting with the company, that  
11 they obviously did not well research the area. There's a  
12 creek that runs within three-quarters of a mile of this  
13 proposed site, which is Sugar Creek which runs through  
14 three counties. Approximately six road miles from this  
15 facility is Middle Fork River for the reservoir which is  
16 located in Champaign County. Sugar creek runs through  
17 Ford, Vermilion and Champaign County, and then runs --  
18 spills into the Middle Fork River, and then that of  
19 course in turn runs into the Vermilion River. That is an  
20 extremely -- well, as is our whole earth, a delicate  
21 ecosystem, and there's some endangered species that are  
22 living and breeding at Middle Fork and they had no idea.  
23 No idea. That's one of our concerns too is Middle Fork.

24

1 MS. LOZUK-LAWLESS: Any questions for Ms.  
2 Cambrin?

3  
4 MR. MCLINDEN: Have you had a chance yet to  
5 investigate what watershed will receive the drainage of  
6 any possible spillage from this proposed Rankin location  
7 facility? My particular concern is, there's a 900  
8 square mile -- 900 square mile area roughly North of Lake  
9 Vermilion, which is the watershed into Lake Vermilion  
10 which provides the municipal water for all the city of  
11 Danville and a few surrounding small town, which serves  
12 about 40,000 people. So I'm very interested in whether  
13 our potential drinking water is at risk. Do you have any  
14 idea?

15  
16 MS. CAMBRIN: That's a very good question,  
17 and I would be happy to look into that and let you know  
18 what I have found out.

19  
20 MS. MCLINDEN: This is the sort of thing that  
21 begs for investigation before any permit could even  
22 possibly be considered.

23  
24 MS. LOZUK-LAWLESS: Any other questions?



1 emergency spillway for a lagoon. On February 5th, I  
2 contacted and had a telephone call with Harry Means, who  
3 is a state conservation engineer for the National  
4 Resource Conservation Service. According to Mr. Means a  
5 cost of an emergency spillway would typically be  
6 insignificant, since the spillway would be cut in the  
7 lagoon wall at the natural ground surface with the kind  
8 of material, if any, used to build the embankment where  
9 lower ground elevations exists. The cost of the  
10 emergency spillway is not available and has not been  
11 separated from the cost of the lagoon in his experience.

12 One purpose of the emergency spillway,  
13 according to Mr. Means is to cause the overflow to occur  
14 at the point where the top of the embankment is at  
15 natural ground elevation or at the point of least fill  
16 height. Mr. Means stated, it is very rare for the lagoon  
17 to be built on an occasion where all four walls are above  
18 the natural ground surface elevation. Mr. Means stated  
19 that when a spillway is installed, more earth may be  
20 needed to be moved to provide the freeboard needed for  
21 the lagoon than when no spillway is installed. The NRCS  
22 standard IL-3589-1 of June 1992, requires the crest of  
23 the emergency spillway to be at least one foot below the  
24 top of the settled embankment. Therefore, the lagoon may

1 be deeper and the embankment higher than the required  
2 freeboard below the crest of the spillway.

3 Generally, in a construction project  
4 involving earth and materials, the designer attempts to  
5 make the cut involved equivalent to the fill volume, to  
6 minimize the cost of construction. Therefore, for a one  
7 foot deep emergency spillway, the lagoon would need to be  
8 cut approximately six inches deeper into the ground, and  
9 the top of the embankment would need to be approximately  
10 six inches higher as compared to the same lagoon without  
11 such a spillway. Mr. Means states that the cost of a one  
12 acre by 10 feet deep livestock waist lagoon would be  
13 \$10,000, and the cost of a six acre by 10 feet deep waste  
14 lagoon would be \$35,000. These particular lagoons would  
15 not have excess ramps, a clay liner or other  
16 improvements, but would have an emergency spillway.

17 On the following -- this on February 6th,  
18 1997, I had a teleconference with an agriculture engineer  
19 with the Natural Resource Engineering Service. Mr. Evans  
20 indicates that a complete clay liner would be  
21 approximately two to three dollars per square yard for a  
22 two foot thick liner. Mr. Evans indicated this cost  
23 would be in addition to the cost estimated by Mr. Means  
24 for the lagoon construction. Mr. Evans stated that the

1 emergency spillway is located on the lagoon wall where  
2 the least amount of fill is located.

3 And that's all I have.

4

5 MR. WARRINGTON: If there are any questions,  
6 we'd be pleased to answer them.

7

8 MS. LOZUK-LAWLESS: Any questions by members  
9 of the audience?

10

11 MR. HARRINGTON: Did the spillway you're  
12 speaking of, have any kind of structural support? Was it  
13 made of any type of material? Was there simply an  
14 earthen spillway.

15

16 MR. HEACOCK: These were earthen spillways  
17 that we were talking about.

18

19 MR. HARRINGTON: Were you made aware of some  
20 testimony that the earthen spillway in itself might be a  
21 source of lagoon failure, because there's an area where  
22 there could be erosion of the lagoon wall?

23

24 MR. HEACOCK: I'm not aware of that



1 particular testimony. I'm directing that anywhere where  
2 the lagoon would overflow, there would be concern about  
3 erosion whether there was an emergency spillway present  
4 or not.

5 One of the points indicated here is that you  
6 locate that overflow point where there's no fill or the  
7 least amount of fill, which is more susceptible to  
8 erosion than an unfilled section of wall for that lagoon.

9

10 MR. HARRINGTON: So for the lagoons with all  
11 built up walls around, where would you put the spillway?

12

13 MR. HEACOCK: If they were all the same  
14 height as far as fill?

15

16 MR. HARRINGTON: Yes.

17

18 MR. HEACOCK: Then I don't know that there  
19 would be a critical point for that location.

20

21 MR. HARRINGTON: The spillway at that point  
22 requires structural reinforcement?

23

24 MR. HEACOCK: Yes, it may.

1                   MR. HARRINGTON: Do you have any idea what  
2 the cost of such protection would be?

3

4                   MR. HEACOCK: Not offhand, no.

5

6                   MR. HARRINGTON: Thank you.

7

8                   MS. LOZUK-LAWLESS: Thank you. Mr.

9 Warrington.

10                   MR. WARRINGTON: Tom Warrington. What kind  
11 of structural protection would be available for things  
12 like rift raft, or rock, or rubble, or tile or what?

13

14                   MR. HEACOCK: Concrete. Some type of  
15 synthetic membrane would be used. Those would be some  
16 typical type materials.

17

18                   MR. WARRINGTON: Do you have any feel for the  
19 cost of those or --

20

21                   MR. HEACOCK: Well, the typical design or the  
22 design in 3589-1, it's one foot deep by four foot wide  
23 spillway. Synthetic membrane, I don't know offhand the  
24 cost of that. You know, probably less than \$1,000, but

1           that's -- I have no base figures to base that on. Just a  
2           guess.

3

4                       MS. LOZUK-LAWLESS: When you answer, please  
5           speak up a little bit louder.

6

7                       MS. MANNING: Short question. I think we  
8           need to get on the record and they deal with the  
9           agency's -- sort of the agency's role not in the  
10          Livestock Management Facilities Act, but under the  
11          environmental act. Particularly, if the agency could  
12          explain for me and for the record, its position on  
13          whether a lagoon becomes a point source and therefore  
14          subject to the MPDS program.

15

16                      MR. WARRINGTON: The way the rules are  
17          presently by the board, which is derived from the Federal  
18          Concentrated Animal Feeding Operations.

19

20                      MS. MANNING: We're talking about 35.

21

22                      MR. WARRINGTON: Existing board regulations,  
23          various categories are decided by size of the animal  
24          feeding operations. And depending on their categories

1 for either, are required to have an MPDS permit or  
2 description of the agency. But in each case, that permit  
3 has an exception, that if it's designed to contain all  
4 the waste, except in the event of a 25 year rainfall  
5 event, then it's exempt from getting an MPDS permit.

6 There are occasions when we have investigated  
7 complaints that we found that the lagoon walls are not  
8 impermeable but allowing seeps or leaks, and that would  
9 constitute a claim source. We find occasions where the  
10 operator is behind on his pump on schedule or whatever is  
11 required is gone and the unit is overtopping at some  
12 place, that constitutes a source. So in those two  
13 situations, the agency has a certain amount of discretion  
14 whether to bring a suit for violation of the act, which  
15 would require a MPDS permit for a source, and it could  
16 also require a MPDS permit as a case by case basis as  
17 part of a control basis until they got the situation back  
18 under control. Then the situations where when you have a  
19 discharge from a lagoon and it's not caused by a 25 year  
20 storm event, it would be a point source and subject to  
21 the MPDS requirements.

22

23 MR. RAO: Should that be due to water or  
24 damage?

1 MR. WARRINGTON: After a surface water  
2 discharge?

3

4 MS. MANNING: A lagoon leaking into the  
5 ground water, is not considered by the agency to be a  
6 discharge?

7

8 MR. WARRINGTON: We have to get back to you  
9 on that one. I would have to check the Ground Water Act  
10 and see how that places on it.

11

12 MS. MANNING: That's fine, you can do that in  
13 your response. That's certain a legal question I'm  
14 asking. Could you, for the record, for violations of the  
15 Environmental Regulation Act and by a Livestock  
16 Management, Livestock Waste Facility?

17

18 MR. WARRINGTON: Livestock Management  
19 Facilities Act, there's a section in there that preserves  
20 the present rights, responsibility and duties of the  
21 agency to enforce the environmental act and board  
22 regulations.

23

24 And as Mr. Taylor testified earlier today,  
the agency program is a complaint based program. That

1           when we find information from any source or any  
2           complaint, conduct an investigation, find out if  
3           contaminants or manure has either reached the waters of  
4           the state, either from a leaking lagoon, an overtopped  
5           lagoon.

6                         We have situations where they might be land  
7           applying over vigorously, such that the soil becomes  
8           saturated and eventually reaching surface waters. And we  
9           have cases where manure is piled too close to waterways,  
10          it gets into it in rain storms. All of those have  
11          potential. And some cases have caused violations of the  
12          board's water folic standards. Usually ammonia,  
13          sometimes biological oxygen demand, sometimes total  
14          suspended solids, and in some cases the concentration of  
15          pollutant has caused a fish kill.

16                        So when we find information such as that, we  
17          document them, prepare a strategy to deal with it, and  
18          the next step would be to meet with the producer and see  
19          if there's waste that can be collected speedily, quickly  
20          and efficiently. If that fails, are next option is to  
21          refer that kind of violation to the Governor's office or  
22          to the county's states attorney, who then has the option  
23          of bringing a suit to force that kind of compliance, and  
24          force that kind of change as operations to prevent that

1 kind of occurrence in the future. And secure penalties  
2 for that violation.

3

4 MR. GIRARD: I have a quick related question.  
5 Are you going on with same line?

6

7 MS. MANNING: Yes.

8

9 MR. GIRARD: Go ahead.

10

11 MS. MANNING: I want to make sure the agency  
12 does not consider any current provision of Livestock  
13 Facilities Act to impinge on any --

14

15 MR. WARRINGTON: That is correct.

16

17 MR. GIRARD: Going back to your complaint  
18 process and responding to complaints, do you ever get any  
19 complaints forwarded by the Department of Agriculture or,  
20 you know, complaints that come to you by way of their  
21 inspection duties under other laws?

22

23 MR. WARRINGTON: Do you ever get any  
24 complains that have been forwarded to you by Department

1 of Agriculture employees based on their activities?

2

3 MR. TAYLOR: I don't recall any specifically  
4 offhand where they have referred situations to us. I  
5 know we've had health departments and local health  
6 departments, as well as state and other entities,  
7 governmental entities have referred cases to us. It's  
8 not to say the Department of Agricultural hasn't at one  
9 time or another. We do refer certain cases to them  
10 whenever our field people observe dead animals being  
11 disposed of improperly, we report that to the Department  
12 of Agriculture.

13

14 MR. GIRARD: I guess my question would be, if  
15 an agricultural inspector was out looking at dead animals  
16 and noticed a potential violation of, you know,  
17 agricultural runoff entering a stream, would you get a  
18 forwarded complaint or, you know, a question from them to  
19 go look into that particular possibility?

20

21 MR. TAYLOR: That would be more appropriately  
22 answered by the Department of Agricultural. In the past,  
23 I'm not sure all the department's inspectors were fully  
24 cognizant of the regulations that we administer, so



1           whether or not they would have appropriate knowledge to  
2           forward such complaint to us is there. I think with  
3           their more recent involvement with these laws and  
4           proposed regulations, that it's much more likely to  
5           occur, if in fact their field people, in dealing with  
6           these livestock operations, can't get a problem resolved.

7

8                           MS. LOZUK-LAWLESS: Mr. Goetsch.

9

10                          MR. GOETSCH: Doctor Paul Melketch of the  
11           Animal Welfare is not with us today. I believe there  
12           have been cases in both directions, in that our people  
13           involved in the administration of the Dead Animal  
14           Disposal Act has indeed forwarded people to the agency,  
15           just as the agency has forwarded dead animal issues to  
16           the department.

17

18                          MR. TAYLOR: I can't recall any specific  
19           incidents. I'm not saying they haven't in the past.  
20           There have been situations where we've done inspections  
21           because there have been dead animal disposal problems as  
22           well as livestock waste management problems at the same  
23           site and involve basically the same investigation. But  
24           here again, I can't say they haven't.

1 MR. WARRINGTON: You can't record them?

2

3 MR. TAYLOR: Our field sheet does have places  
4 for that, but I'm not sure the Department of Agriculture  
5 is on there; there's another category. I guess what I'm  
6 saying, and I'm not sure if this is what you're asking, I  
7 don't think we can allege that they have not passed the  
8 information on to us.

9

10 MS. LOZUK-LAWLESS: Mr. Goetsch.

11

12 MR. GOETSCH: As an example, in our  
13 agra-chemical containment and pesticide program, I  
14 believe we do have an excellent working with their field  
15 staff and have forwarded numerous complaints to us, and  
16 we've done numerous joint inspections with them. And we  
17 would anticipate the same kind of relationship to occur  
18 as our activity associated with the Livestock Management  
19 Facility Act further is developed.

20

21 MS. ERVIN: Do you think it's important that  
22 citizens know that two agencies have this type of working  
23 relationship or that they can approach -- that they  
24 should approach one or the other in certain situations

1 or --

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MR. GOETSCH: In the livestock management program, that kind of educational activity where we make sure people are aware. Hopefully, the legislature will see fit to provide funding in the coming years. Public outreach type of problems.

MS. LOZUK-LAWLESS: Thank you, Mr. Goetsch.

MS. MANNING: I would point out too, for the record, there's a provision in the act, even with the complaint procedure, allowing citizens specifically to call the agency; the agency then calls the department. It's section 509, I think. No, I'm sorry, complaint procedure, any person having complaint, file a complaint with the agency and then if the agency finds the ground water negatively impacted because of structure problems, it shall notify the department. It also says that the agency -- nothing in the section shall limit the agency's authority under the Environmental Protection Act in response to rules adopted thereunder.

My understanding of that, and if anybody wants to legally argue this point, they ought to do this.

1 But my understanding of that, this complaint procedure  
2 does not foreclose any other activities of the  
3 Environmental Protection Agency subject under the  
4 Environmental Protection Act.

5

6 MR. WARRINGTON: That's the way we interpret  
7 it as well.

8

9 MR. BORUFF: Yes, we agree.

10

11 MS. LOZUK-LAWLESS: Any other questions for  
12 the Illinois Environmental Protection Agency?

13 All right. We have two things to do. We  
14 would like to enter in those exhibits from Mr. Taber.

15

16 MR. TABER: Previously at the Galesburg  
17 hearing, I believe Dr. DePetry wanted a report by Dan  
18 Elotto and John Lawrence, and we did not have a copy of  
19 it. We now would like to enter that into the record.  
20 For the record, this is the 1996 version or the Illinois  
21 Pork Industry 1995, written in 1996, the one that Dr.  
22 DePetry -- was the 1992 version.

23

24 MS. LOZUK-LAWLESS: Thank you, Mr. Taber.

1 We'll mark this report as Exhibit Number 91, entitled  
2 Illinois Pork Industry 1995, Pattern Economic Importance.

3

4 MR. TABER: And also Mike Rapsey's testimony  
5 at the Mt. Vernon report by the Environmental Protection  
6 Agency regarding Inventory and Assessment of Surface  
7 Impacts, and they were nice enough to give us several  
8 copies of that report, and I'd like to enter that into  
9 evidence as well.

10

11 MS. LOZUK-LAWLESS: Thank you, Mr. Taber.  
12 We'll mark the State of Illinois Environmental Protection  
13 Division of Land and Noise Pollution Control Inventory  
14 and Assessment of Surface Impacts of Illinois as Exhibit  
15 Number 92. Thank you, Mr. Taber.

16 Now if the Department of Natural Resources  
17 would come, and this will be the final testimony we hear  
18 today.

19

20 MS. MANNING: I will ask as well, when I ask  
21 about the task force report, we had a question on the  
22 record if there was any documentation that was used on  
23 reliance of that task force report, that we would like  
24 that provided as well. So if there was any documentation

1 or studies that you would like to provide with the task  
2 force report, that would be appreciated as well.

3

4 MR. TABER: You mean documentation mentioned  
5 in the task force report?

6

7 MS. MANNING: Yes. I haven't looked at the  
8 task force report for a long time, I'm not sure what  
9 documentation was relied upon.

10

11 MS. BUSHERLOG: Hello, I'm Cindy Buserlog,  
12 I'm legal counsel for the Department of Natural  
13 Resources, and everyone knows John Marlin by now, and  
14 Deanna Glasser who testified at the -- Dr. Deanna  
15 Glasser.

16

17 (Witness sworn.)

18

19 MS. LOZUK-LAWLESS: Ms. Buserlog.

20

21 MR. MARLIN: I know it's late now, and I was  
22 suppose to be at a birthday party starting at six, so  
23 we'll make this as quick as possible. I'm going to skip  
24 some of our prepared things.

1                   Tonight I represent the Department of Natural  
2 Resources, not just our front office and director. This  
3 issue has motivated a strong degree of interagency  
4 cooperation, which we don't see on many efforts. In a  
5 very real sense, the employees of our department feel  
6 that the resources that we are charged with holding a  
7 public trust for the public are at risk.

8                   I'm going to begin by pointing out or trying  
9 to answer some of the board's questions previously posed  
10 on how many acres would be involved if a half mile  
11 setback were placed around DNR properties. This is a  
12 very difficult thing to answer, due to the fact that  
13 there are so many pieces of information and so many data  
14 sets, some which are computerized.

15                   I'm going to give you some estimates based on  
16 setbacks basically from property we own or lease. We use  
17 a variety of geographic information systems, GIS  
18 Technology and Toe Toe Interpretation in this effort.  
19 I'll begin by introducing a brand new map, which we call  
20 the land cover map of Illinois. I have five copies that  
21 we'll leave with the board. This is, in a nutshell, a  
22 digitized manmade, largely with satellites imagery, and  
23 it's a rather detailed map prepared by a variety of our  
24 divisions which I will not list.

1                   If we can introduce that now. The copies you  
2 receive have a little sheet with them, which we do not  
3 want to make an exhibit, which has some of the  
4 abbreviations.

5

6                   MS. LOZUK-LAWLESS: I'll mark the map of the  
7 Land Cover of Illinois as Exhibit Number 93. This land  
8 cover category is just something that --

9

10                  MR. MARLIN: You could follow along with now.  
11 It's a Xerox of a portion of the map, so you don't have  
12 to follow the map.

13

14                  MS. LOZUK-LAWLESS: Okay, it's a Xerox of the  
15 map.

16

17                  MR. MARLIN: More than 36 million acres exist  
18 in the state of Illinois could be the text of this  
19 testimony. It's important to realize that 77.45 percent  
20 of the statewide acreage is currently agricultural land,  
21 including 54 percent of the total land in the state being  
22 in crops, forest and food land, account for another  
23 11.334 acres. Urban, 5.79 percent. Wetlands are 3.24  
24 percent, including .03 percent swamp land for example.



1 For a total of 100 percent when you get down to the  
2 bottom of the list.

3 Due to the timeframe involved in this  
4 process, and the fact that digitized information was not  
5 available for all sites, some of the maps which we  
6 intended to have to show the two estimates, I'm going to  
7 give you for a one mile setback and half mile setback  
8 will not be included in the record. They are work  
9 documents. We'll have these maps, which are sitting  
10 here, available for the board and anyone else to look at,  
11 to get an idea of how some of what I'm saying can be  
12 visualized, but we'll not be entering those into the  
13 formal record.

14 The first estimate we're going to present is  
15 for a one mile setback as required by livestock  
16 facilities, about 7,000 or more animal units. The data  
17 set for this estimate include all DNR and historic  
18 preservation lands owned by our department as well as  
19 publicly held Illinois natural inventory sites and major  
20 preserves. The area of such sites is approximately  
21 437,000 acres. The uncorrected one mile setback arrived  
22 at these facilities, includes approximately 12,179,000  
23 acres or about six percent of the state. I'll explain  
24 the need for a correction after using the one-half mile

1 zones. Additionally, remember that most proposed  
2 livestock facilities are far below the 7,000 animal unit  
3 figure. So the estimate for the one-half mile setback is  
4 the one that has the most relevance to this proceeding.  
5 The second estimate is, as I said, for the one-half mile  
6 setback from populated areas required for a 1,000 animal  
7 unit operation. The estimate is based on DNR owned or  
8 leased sites. The area of such sites outside of  
9 municipal boundaries is estimated at 408,200 acres.  
10 We've excluded within municipal boundaries because they  
11 already have a setback by the municipal zones. A half  
12 mile setback around these areas is estimated at 884,860  
13 acres prior to being corrected. This is less than two  
14 and a half percent of the state's total acres, and if you  
15 recall our earlier estimate was slightly less than three.  
16 Note again that 77.45 percent of the state's acreage is  
17 agricultural already. And nature preserves occurring at  
18 or within the Scarbrook State Park to such a degree that  
19 some being acres were counted by the computer program  
20 in coming up with the approximately two and a half  
21 percent. This overlap occurred at numerous other places,  
22 Especially those which contain nature preserves.  
23 Secondly, there was no effective way which is a  
24 calculation, and the amount of lands already setback

1 zones do to residences and businesses from near the  
2 proposed DRN setbacks. And third, a tremendous amount of  
3 DNR acreage is located in or near places like the Shawnee  
4 National forest. And if you look at that land cover map,  
5 down at the bottom of the state, you'll see that our  
6 sites down there are already within an area which is  
7 generally not available for livestock facility.

8 I'm going to now present a second set of  
9 maps, which are for more detail and deal with a smaller  
10 area. They demonstrate the best we can of the type of  
11 coverage and protection already afforded to acres  
12 adjacent to our property because of residences. These  
13 maps were prepared at the Waste Management Research  
14 Center, and the verification was done by geological  
15 survey people. I might add, they worked till 11:30  
16 Tuesday night in a photo lab doing that. And there  
17 was -- in an efforts to determine how much land within a  
18 proposed half mile setback, existing residential setback  
19 alone, which was usually a quarter mile.

20 Now we have five state parks or conservation  
21 areas which were included in this. They were all  
22 collected because they were relatively normal sized in  
23 rural areas away from populated areas. These include  
24 Marine View State Park, Counselom in Adams, Brown

1 County. Samdale Lake Conservation Area in Wayne County.  
2 And the Washington County Conservation Area in Washington  
3 County. The five parts conservation areas and one trail,  
4 the Rock Island Trail, were collected and located on U.S.  
5 topographic maps. Boundaries and solid square residences  
6 and businesses were put into a GIS System. The system  
7 then generated a half mile setback zone around the  
8 boundary that is visible on the exhibit as what has been  
9 referred to in this proceeding before. Likewise, a  
10 one-fourth mile boundary was computer generated around  
11 all the residences, and a half mile around clusters of  
12 ten or more residences, which would get the half mile  
13 setback. The number of acres within the DNR proposed  
14 setback zone already afforded protection but could then  
15 be readily determined by the software program, as could  
16 the areas that were covered only by the DNR zone.

17 Given that the information on the USGS maps  
18 regarding residences was at least 20 years old, we  
19 decided to try to the best of our ability to verify  
20 whether that data was still accurate. In a nutshell, we  
21 had the geologic take maps from the U of I Library of  
22 those areas of 1993 to 1995. We had two people with  
23 photo interpretation experience go house by house around  
24 these parks and verify the existence. This showed there

1 was little change. Three parts experienced no change,  
2 while one gained three and the other gained 23  
3 residences. However, due to the locations of dwellings  
4 added or removed, the location of dwellings added or  
5 removed, the results was little or no expected change in  
6 the amount of setback area. We're therefore confident  
7 that the acreages on the five maps of the parks are  
8 reasonably accurate.

9 I would also note, if someone wants to go dot  
10 by dot like we did, we did include one mine shaft of the  
11 designated residences by accident, and one house was  
12 skipped. So, a tiny bit of inaccuracy on that. An  
13 example of the result would be Marine View State Park,  
14 which is the first small map in the exhibit, and an  
15 example of a half mile setback around Marine View State  
16 Park, 2,653 acres of which 1,781 are already unavailable  
17 to livestock facilities due to residential setbacks.

18  
19 MS. LOZUK-LAWLESS: Let the record reflect  
20 that the exhibit he is referring to, Livestock Setbacks  
21 Information, has been marked as Exhibit Number 94 and  
22 entered into the record.

23

24 MR. MARLIN: The Rock Island Trail was put

1           into the system but not verified photographs. 67 percent  
2           around the proposed buffer was already covered by  
3           residential setbacks. And without going through the  
4           table on the first page of Exhibit 94, I'll just give you  
5           the summary figures. 25 parks, if you add up all the  
6           acreage fully, 53 percent of the land in a half mile  
7           setback around those five properties is already  
8           unavailable to livestock new facilities because they're  
9           covered by residential setbacks.

10                        If you combine the information contained on  
11           the five park maps and the Rock Island Trail, the average  
12           of 60 percent of the land within a half a mile of the DNR  
13           Boundaries are found to already be unavailable due to  
14           residential setbacks. So if you look at these numbers,  
15           admittedly a small sample but as accurate as we can get,  
16           approximately two and a half percent statewide. That two  
17           and a half percent is probably going to diminish  
18           substantially. This information strongly supports our  
19           context of two and a half percent is in fact an over  
20           estimate. More importantly, however, these six maps  
21           clearly show that even with surrounding existing  
22           residential development, our state parks and recreation  
23           areas have livestock lagoons near their borders as is  
24           currently happening in the area. Using Marine View as an

1 example again, the map shows lagoons could be located  
2 adjacent to the park on all four sides, despite the fact  
3 that the perimeter is within a residential setback.  
4 Those obviously are few shots around the perimeter are  
5 not included within one of the circles within residential  
6 setback. That concludes the comments on Exhibit 94.

7 I have three short observations on the record  
8 and then I will be finished. Counsel has reminded me of  
9 the large maps. These are the maps that we're going to  
10 show you when you want. It was my understanding, you  
11 want them displayed after the testimony?

12

13 MS. LOZUK-LAWLESS: Yes.

14

15 MR. MARLIN: Or after the hearing. I don't  
16 see a point of unrolling them right now.

17

18 MS. LOZUK-LAWLESS: I agree.

19

20 MR. MARLIN: Three brief comments that may  
21 help with some of the interpretation here. The livestock  
22 section 586, notes that due to increasing numbers of  
23 animals at Livestock Management Facilities, there's a  
24 potential for greater impact on the immediate area.

1           Consistent with this observation, the law sets up  
2           protective setback zones for certain populated areas  
3           based on their difference from a livestock facility and  
4           the type of area to be protected. We note that a  
5           business which houses its employees indoors where walls,  
6           doors and air conditioning is available to mitigate odor,  
7           a building of that type is clearly afforded a one-half  
8           mile setback by the statute.

9                         We note that people visit our facilities for  
10           outdoor experiences which are far more severely impacted  
11           by odor. DNR believes that the legislature believes  
12           public investment in outdoor parks and recreation as  
13           commercial buildings.

14                        Second, I note rules be precise and have a  
15           minimum ambiguity, especially in matters providing  
16           procedure standards and measurements. The proposed  
17           definition of populated area in the proposal before you  
18           today is unclear as to what physically constitutes a  
19           place of common assembly in the case of outdoor areas.  
20           If this matter is not clarified by the board, the  
21           potential exists for disputes each time a livestock  
22           facility is proposed near a recreation. Such disputes  
23           may end up before the board or circuit court in the  
24           future. Requiring boundary measurements from the --



1 requiring setback measurement from the property boundary  
2 will remove this ambiguity.

3                   Lastly, draw your attention to section 100 of  
4 the LMNA, which states nothing in this act shall be  
5 construed as a limitation or presumption of any statutory  
6 or regulatory under the Illinois Environmental Protection  
7 Act of the section 20-A has similar language and it  
8 applies to livestock waste. This provision provides  
9 considerable latitude for interpreting the LMNA within  
10 the context of the Environmental Protection Act rather  
11 than solely as a stand alone act.

12                   And with that, I conclude my testimony.

13

14                   MS. LOZUK-LAWLESS: Thank you, Dr. Marlin.

15

16                   MS. MANNING: I have a question about the  
17 Shawnee National Forest. I think you indicated Shawnee  
18 National Forest would be included in your proposed  
19 definition?

20

21                   MR. MARLIN: Yes, our definition includes  
22 lands for conservation recreation purposes. And the way  
23 the Shawnee National Forest works into that, given that  
24 the Shawnee is basically a large block that does not

1 effect, if you will, on that is kind of like a geologists  
2 reference to the biology of a flea in terms of an  
3 elephant. Simply put, a half mile boundary around  
4 forest acreage contained in the Shawnee Forest will have  
5 a much smaller number of acres than if you took the vast  
6 Shawnee and broke it in 200 sites and put a half mile  
7 buffer around each one.

8  
9 MS. MANNING: But the Shawnee National Forest  
10 doesn't include some of those areas that you're sheet --  
11 that you gave us, other agricultural land?

12  
13 MR. MARLIN: Yes.

14  
15 MS. MANNING: Is included in the Shawnee  
16 National Forest, is that correct?

17  
18 MR. MARLIN: That's correct. You think  
19 overall when I look at it in terms of where the state's  
20 primary land is located and where our facilities are  
21 located, you'll find a half mile buffer around our  
22 facilities takes in far less crop land. So again, much  
23 of that two and a half percent or whatever the actual  
24 figure is, is not really agricultural land, a lot of that

1 is woods, and scrub ground and land that is not otherwise  
2 classified as agricultural. There is agriculture land  
3 there, obviously, but not to the degree you would find it  
4 in Champaign County or McLean or the other 54 percent of  
5 the state in my tell all.

6

7 MS. MANNING: Just to clarify livestock  
8 setback information you gave us a couple weeks ago, this  
9 is not an inclusive list of all DNR property?

10

11 MR. MARLIN: Which one is that?

12

13 MS. MANNING: The livestock --

14

15 MR. MARLIN: No, that is only six properties.  
16 Like I said, we tried to be representative there.

17

18 MS. LOZUK-LAWLESS: Any other questions?

19

20 MR. HARRINGTON: Doctor Marlin, was any  
21 effort made to determine how many of the residences that  
22 were located within -- using your calculations, were farm  
23 residences?

24

1                   MR. MARLIN: No, we had no way of doing that.  
2                   We just took what was on the publicly available maps. We  
3                   had no ability at that time.

4

5                   MR. HARRINGTON: So some or perhaps many of  
6                   those residences could be located on farms which could  
7                   either now have or elect to have expanded feeding  
8                   operations, is that correct?

9

10                  MR. MARLIN: I couldn't say many but some.  
11                  Possibly some of them are, yes. We don't have a  
12                  definitive answer.

13

14                  MR. HARRINGTON: Was there any calculation  
15                  made of how many farms would be unable to go into  
16                  concentrated animal feeding operations because of the  
17                  setbacks?

18

19                  MR. MARLIN: No, we had no ability to do  
20                  that.

21

22                  MR. HARRINGTON: So we do not know if any  
23                  individual farms or farmer would be impacted by this  
24                  increase in the setbacks?

1                   MR. MARLIN: No, we don't. But I would  
2 maintain, this is not an increase in the setbacks since  
3 the statute gives a half mile from an operated area, any  
4 increase would be based on the change in how the -- how  
5 the board interprets where the setback is measured from,  
6 because I don't believe that has ever been interpreted.

7  
8                   MR. HARRINGTON: Don't you agree with me,  
9 most of legislatures would be shocked to find out the  
10 Shawnee National Forest was a populated area?

11  
12                   MR. MARLIN: Not according to the context of  
13 the visitorship down there, no. If they took populated,  
14 being like Chicago, obviously, yes.

15  
16                   MR. HARRINGTON: Compared to the rest of the  
17 state?

18  
19                   MR. MARLIN: No, the way populated is used in  
20 the statute is more defined by use than residence. 50 or  
21 more people once -- or more people once a week, using the  
22 statute as opposed to public concept of populated.

23  
24                   MR. HARRINGTON: 50 people use some part of

1 the Shawnee National Forest, that means the whole Shawnee  
2 National Forest is a populated area?

3

4 MR. MARLIN: I'm have to think about that  
5 one. One could make that assumption under this  
6 definition, yes.

7

8 MR. HARRINGTON: Did you believe that was the  
9 intent of legislature?

10

11 MR. MARLIN: I think the Shawnee is an  
12 unusual example, but if you use the legislative  
13 definition, I would have to say that they would interpret  
14 it that way.

15

16 But again, I would emphasize, that's the  
17 extreme case. Most facilities with 50 or more people are  
18 far smaller than the Shawnee National Forest.

18

19 MR. HARRINGTON: Within the Shawnee National  
20 Forest, that would essentially be within the setback  
21 zone, correct?

22

23 MR. MARLIN: Depends on the measurement.  
24 Shawnee has various natural sizes. I think generally a

1 setback around the lands of Shawnee National Forest would  
2 preclude the large livestock operations in the holding  
3 areas. By in large, there are probably a few exceptions.  
4

5 MR. HARRINGTON: And by in large, you mean  
6 anything over 300?  
7

8 MR. MARLIN: By large, I think I'll use the  
9 title 35 definition right now, which I can't remember if  
10 it's 300 or 1,000. You can go with the existing state  
11 definition, it will speak for itself. I've heard so much  
12 testimony on that, I'm not sure what large is.  
13

14 MS. LOZUK-LAWLESS: Thank you. No further  
15 questions of Dr. Marlin.  
16

17 MR. WARRINGTON: Under these proposed  
18 regulations, if there was an existing livestock facility  
19 in one of these in holdings, wouldn't it be able to  
20 expand regardless of the interpretation the setback?  
21

22 MR. MARLIN: I believe they would have the  
23 ability to explain, and once they are grandfathered in.  
24 We're basically talking about precluding new operations

1 of these setbacks, not the existing ones.

2

3

MS. LOZUK-LAWLESS: Thank you, Dr. Marlin.

4

Very well, I would like to say that the record of this

5

matter will be closing on February 14th, so if you want

6

to get comments to the board, make certain that they are

7

received by the board.

8

9

MS. MANNING: Thanks everybody for their

10

patience for this long haul within the last two weeks.

11

It's been interesting for us. Hopefully, we have a long

12

process ahead of us.

13

MS. LOZUK-LAWLESS: Thank you.

14

15

16

(This is all the proceedings

17

had on this day.)

18

19

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21

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23

24



1 STATE OF ILLINOIS )  
 ) SS  
2 COUNTY OF ST. CLAIR )

3 I, JUNE J. WINKLER, a Notary Public in and for the  
4 County of St. Clair, State of Illinois, and CSR, do hereby  
5 certify that on February 7, 1997, at the offices of the  
6 Champaign Brookens Administrative Center, 1776 East Washington,  
7 Champaign, Illinois, the foregoing proceeding was taken down in  
8 shorthand by me and afterwards transcribed upon the computer.

9 I DO HEREBY FURTHER CERTIFY that the foregoing is a  
10 true and correct transcript of said proceeding.

11 IN WITNESS WHEREOF, I have hereunto set my hand and  
12 affixed my Notarial Seal on this 15th day of February, 1997.

13

14

15

16

17

\_\_\_\_\_  
June J. Winkler, CSR - #084-003206

18

19 My commission expires February 19, 1999.

20

21

22

23

24