

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
 PROPOSED AMENDMENTS TO CLEAN )  
 CONSTRUCTION OR DEMOLITION DEBRIS )  
 (CCDD) FILL OPERATIONS: )  
 PROPOSED AMENDMENTS TO )  
 35 Ill. Adm. Code 1100 )

R 2012-009(B)  
 (Rulemaking Land)

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**STATE OF ILLINOIS**  
**Pollution Control Board**

TRANSCRIPT FROM THE PROCEEDINGS taken before  
 HEARING OFFICER MARIE TIPSORD, by LISA K. HAHN, CSR,  
 RMR, a notary public within and for the County of  
 Macon and State of Illinois, at the Illinois  
 Environmental Protection Agency, Sangamo Room, 1021  
 North Grand Avenue East (North Entrance), Springfield,  
 Illinois, on the 20th day of May, 2013, A.D., at 10:30  
 a.m.

1 APPEARANCES:

2 ILLINOIS POLLUTION CONTROL BOARD  
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5 BY: MS. MARIE TIPSORD, HEARING OFFICER TIPSORD

6

7 ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT

8 Ms. Alisa Liu  
Mr. Anand Rao  
9 Ms. Deanna Glosser  
Mr. Jerome O'Leary  
10 Ms. Sara Shannon, for Thomas Holbrook

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1 HEARING OFFICER TIPSORD: I think we're  
2 ready to start.

3 Good morning, everyone. My name is Marie  
4 Tipsord, and I've been appointed by the Board to serve  
5 as Hearing Officer in this proceeding entitled:  
6 Proposed Amendments to Clean Construction or  
7 Demolition Debris Fill Operations (CCDD): Proposed  
8 Amendments to 35 Ill. Adm. Code 1100, R12-9, Subdocket  
9 B.

10 With me today to my immediate left is Board  
11 Member Deanna Glosser, the Presiding Board Member, and  
12 to my immediate right, Board Member Jerry O'Leary. To  
13 my far left on the end is Alisa Liu, and next to her  
14 is Anand Rao from our technical unit.

15 Also with us today to my far right is Sara  
16 Shannon. She's here representing Chairman Tom  
17 Holbrook, who is unable to be here today, so he sent  
18 Sarah to take notes and listen in.

19 On August 23rd, 2013, the Board adopted  
20 Amendments to the CCDD rules and opened Subdocket B as  
21 a recommendation of the Joint Committee on  
22 Administrative Rules. JCAR recommended that the Board  
23 give further consideration to whether groundwater  
24 monitoring should be required for these facilities.

1 This would give the Board the opportunity to receive  
2 further comment from parties who may not have  
3 submitted their supportive views when groundwater  
4 monitoring was an element of this proposal and who may  
5 have opinions and information to offer in light of the  
6 Board's decision to remove the requirement before  
7 going to First Notice on its Rulemaking. That's a  
8 quote from the JCAR recommendation. The Board  
9 accepted additional comments in Subdocket B until  
10 December 1st, 2012.

11 On March 21st, 2013, the Board directed that  
12 additional hearings be held, and that the Hearing  
13 Officer present questions for participants to respond  
14 to. The purpose of today's hearing is to hear  
15 testimony responding to those questions.

16 We have received pre-filed testimony from  
17 six individuals. We will swear in the witness, take  
18 the testimony as if read, and mark it as an exhibit.  
19 We will then proceed to question the individuals or  
20 entities. I will allow a brief introductory comment  
21 from the witness, if they would like to do so.

22 I want to note that I will also offer into  
23 the record as exhibits the pre-filed questions. This  
24 will allow for either citation in comments and the

1 Board's opinion.

2 We will also begin with Exhibit Number 52,  
3 as the Board received 51 exhibits in the R12-9 root  
4 docket, and we have already had citations to some of  
5 that prior testimony in the comments we've seen. So  
6 for ease of citation, we will start at 52.

7 Before we open today's hearing, I discussed  
8 the order of our testifiers. Of the pre-filed  
9 testimony, we will begin with Will County; then go to  
10 Mr. Hamper, then Brian Lansu, James Huff, the People,  
11 and the IEPA.

12 Before we start with pre-filed testimony, I  
13 have been informed that we have some State Legislators  
14 with us today, as well as County Executives, and we  
15 will let them go first. As this is a session day, we  
16 want them to go about the State's business as quickly  
17 as possible.

18 Anyone may ask a question today; however, I  
19 do ask that you raise your hand, wait for me to  
20 acknowledge you. After I have acknowledged you,  
21 please state your name, who you represent, before you  
22 begin your questions.

23 Please speak one at a time. If you speak  
24 over each other, the court reporter will not be able

1 to get the questions on the record. And please note,  
2 any questions asked by a Board member or Staff are  
3 intended to help build a complete record for the  
4 Board's decision and not to express any preconceived  
5 notion or bias.

6 Are there any questions on the procedures  
7 we're going to be following today?

8 Okay. Thank you very much.

9 With that, Ms. Curry, did you want to  
10 introduce him?

11 MS. CURRY: Representative Walsh.

12 REPRESENTATIVE WALSH: Where would you like  
13 me to go?

14 HEARING OFFICER TIPSORD: If you would like,  
15 you can come up here. That way you can talk to the  
16 back of the room. And would you like to be sworn in,  
17 Representative Walsh?

18 REPRESENTATIVE WALSH: If it's necessary, I  
19 will.

20 HEARING OFFICER TIPSORD: We will swear you  
21 in.

22 (Witness sworn.)

23

24



1           LARRY WALSH, JR., called as a witness  
2 herein, having been first duly sworn, testified as  
3 follows:

4  
5           REPRESENTATIVE WALSH: Good morning. I'm  
6 Larry Walsh, Jr., State Representative from the 86th  
7 District. I represent Joliet, Elwood, Channahon,  
8 along the Des Plaines River Valley there through  
9 Joliet.

10           I was asked to testify on behalf of my  
11 constituents along the 86th District in the County of  
12 Will for the purpose of groundwater monitoring for our  
13 CCDD sites there in the Joliet area.

14           We have put forth several arguments in the  
15 past as this process has been going along, but I just  
16 wanted to reiterate some of these main points, is that  
17 Will County has nine active permitted CCDD facilities  
18 within the county, and all are located adjacent to  
19 principal waterway systems of Northwestern Will County  
20 including the DuPage River and the Des Plaines River.  
21 Seventy-one percent of the population of Will County's  
22 residents rely on groundwater for their drinking  
23 water. That is a huge number for a county as large as  
24 Will and the number of people that are in it, and for

1 that purpose alone, that's why we're requesting this  
2 rule change.

3 For the cost of 6 cents to 16 cents per  
4 cubic foot of clean debris going in there into these  
5 facilities, compared to where it's dumped there --  
6 they charge \$4.50 -- it's a small cost to make sure  
7 that our water systems are safe.

8 So, with that being said, that's basically  
9 the reason why I came before you today, to show the  
10 concern that we have in Will County, especially within  
11 the Joliet area. I know my constituents, I probably  
12 have over a thousand that are on their own wells that  
13 are directly close to a CCDD facility, to make sure  
14 that their water's safe, and that's all they're  
15 asking.

16 So, with that, I please ask for your  
17 consideration in this rule changing, and I would ask  
18 for your favorable opinion. Thank you.

19 HEARING OFFICER TIPSORD: Thank you,  
20 Representative Walsh.

21 Does anyone have any questions?

22 Seeing none, thank you very much. We  
23 appreciate your time and your comments that were  
24 received from you. They've been very helpful. Thank

1 you.

2 And next?

3 SENATOR MCGUIRE: I'm State Senator Pat  
4 McGuire from the 43rd District.

5 HEARING OFFICER TIPSORD: Good morning,  
6 Senator McGuire.

7 (Witness sworn.)

8  
9 PAT MCGUIRE, called as a witness herein,  
10 having been first duly sworn, testified as follows:

11  
12 SENATOR MCGUIRE: As the elder of the two  
13 legislators, do you mind if I sit?

14 HEARING OFFICER TIPSORD: No, please do.

15 SENATOR MCGUIRE: Thank you. I appreciate  
16 the opportunity to speak with you this morning. I'm  
17 here to strongly support Will County's call for the  
18 implementation of groundwater monitoring at Clean  
19 Construction and Demolition Debris sites.

20 And if I may, I'll briefly describe the 43rd  
21 District. The 43rd District is the populous of west  
22 central Will County. It's the townships of Jackson,  
23 Channahon, Joliet, Lockport and Du Page, and within  
24 the 43rd District, there are a majority of the nine

1 permitted CCDD facilities, which Representative Walsh  
2 mentioned. So, again, a majority of the nine active  
3 permitted CCDD facilities are within the 43rd  
4 District. Please note that four of them are directly  
5 beside the Des Plaines River, right on the river.  
6 Three more are very close to the river.

7 As Representative Walsh noted, 71 percent of  
8 Will County residents rely on a shallow aquifer system  
9 for their potable water supply, and contaminants near  
10 or below the ground surface can rapidly infiltrate  
11 into this aquifer, move through the aquifer and  
12 towards waterways or areas of groundwater withdrawal.

13 So requiring CCDD sites to install  
14 groundwater monitoring systems is absolutely essential  
15 to ensure that community water supplies are protected  
16 and safe from contamination.

17 Again, as Representative Walsh noted, the  
18 cost is certainly tolerable, and this is proven by the  
19 fact that at least one of those nine Will County CCDD  
20 sites has agreed to put in monitoring wells as a  
21 condition of its zoning permit. And monitoring wells,  
22 also, I would suggest, will have a salutary effect on  
23 the operators so that they will ensure that the fill  
24 they are accepting is clean, since the wells will

1 detect any contamination.

2           So, in closing, I urge you on behalf of the  
3 men, women, and children of the 43rd District to  
4 require three things: First, groundwater monitoring  
5 at all CCDD facilities; secondly, that reporting of  
6 noncompliant CCDD facilities be in line with  
7 conditions established for other solid waste  
8 landfills, which, as you know, require reporting of an  
9 exceedance within ten days of the change in  
10 groundwater quality; and, finally, that corrective  
11 action in cases of noncompliance with groundwater  
12 quality standards also be in line with conditions  
13 established for solid waste landfills.

14           Thank you.

15           HEARING OFFICER TIPSORD: Thank you very  
16 much, Senator McGuire.

17           Does anyone have any questions?

18           Thank you very much. We appreciate you  
19 taking the time to speak to us today.

20           SENATOR MCGUIRE: Thank you.

21           (Witness sworn.)

22

23

24

1           LARRY WALSH, SR., called as a witness  
2       herein, having been first duly sworn, testified as  
3       follows:

4  
5           MR. WALSH: Good morning, everyone. I'm  
6       Will County Executive, Larry Walsh, former State  
7       Senator of the 43rd District, and I want to sincerely  
8       thank the Illinois Pollution Control Board for  
9       allowing us to come and speak to you today on this  
10      very, very important matter.

11           I want to thank our State Senator and our  
12      State Representative for taking time out of their busy  
13      schedules to come and testify, also, as they represent  
14      a huge portion of Will County.

15           Will County is the fourth largest populated  
16      county in the State of Illinois, approximately 700,000  
17      residents. We're the 13th largest geographic county  
18      out of the 102 counties in the State of Illinois.  
19      This issue is truly of major importance to us and our  
20      future.

21           Over the past several years, Will County and  
22      its legislative representatives have been involved  
23      with many pieces of legislation that have been  
24      introduced regarding regulation of Clean Construction

1 Demolition Debris and uncontaminated soil fill  
2 operations. Once legislation was passed in 2010 that  
3 did not require groundwater monitoring, but  
4 recommended to the Illinois Pollution Control Board in  
5 the rulemaking processes at these sites, Will County  
6 began providing comments to the IEPA and the Illinois  
7 Pollution Control Board requesting that the IPCB adopt  
8 rules requiring groundwater monitoring for the CCDD,  
9 and the uncontaminated soil fill operations be  
10 rejected.

11 The IPCB is conducting hearings this month  
12 due to Will County, IEPA, Illinois Attorney General's  
13 Office, and other parties requesting that the IPCB  
14 reconsider their decision and require groundwater  
15 monitoring at CCDD and uncontaminated soil fill  
16 operations.

17 Why does Will County care? The majority of  
18 Will County's residents and businesses rely on  
19 groundwater, not Lake Michigan water, as their primary  
20 drinking and domestic water source.

21 Many of the Clean Construction and  
22 Demolition Debris and uncontaminated soil fill  
23 operations are located near Will County's residential  
24 and businesses and have their debris within close

1 proximity to the water source they will consume or  
2 use.

3 Will County has nine operating CCDD sites  
4 and one registered uncontaminated soil only operation.  
5 Only Kane County has more of these types of sites than  
6 Will County. Will County is the only county that  
7 inspects CCDD and uncontaminated soil operations on  
8 behalf of the IEPA and, therefore, has a vested  
9 interest in ensuring that they operate in an  
10 environmentally sound manner.

11 Until recently, within the last two years,  
12 CCDD and uncontaminated soil only operations were not  
13 required to thoroughly screen or verify and provide  
14 test results or sign off from PE and PG, the loads  
15 they were receiving. The screening methods were done  
16 with just visual check or using a device that would  
17 only detect a portion of the load being received.  
18 Therefore, it is possible that contaminated material  
19 has been accepted at these facilities for many years.

20 In addition to improving screening,  
21 groundwater monitoring is another way to protect our  
22 groundwater through detection. Whether to require  
23 groundwater monitoring or not should not be based on  
24 cost, since our drinking water is vital to our lives.



1           Additionally, through a thorough analysis  
2           using experts, Will County, as well as the IEPA and  
3           others, have determined that the cost to perform  
4           groundwater monitoring is pennies, 6 cents to 16 cents  
5           per cubic yard, which the is way loads are charged at  
6           the CCD and uncontaminated fills.

7           I appreciate your time and I cannot express  
8           how sincere we are in this issue. 700,000 residents.  
9           Within the next 25 to 30 years, we should become the  
10          second most populated county in the State of Illinois,  
11          reaching a peak at about 1.2 million. A vast majority  
12          of those 1.2 million residents will be relying on us  
13          making sure that the underground water that is going  
14          to be their life is secure and safe.

15          We are asking for a simple mechanism of  
16          monitoring these wells, monitoring wells at these  
17          sites for the protection, the protection and the  
18          livelihood, of our county in the future.

19          I thank you again for your time.

20                 HEARING OFFICER TIPSORD: Thank you very  
21          much.

22                 Are there any questions?

23                 Thank you so much for your time.

24                 Okay. And if anyone else would like to

1 testify later today, we do have a sign-up sheet at the  
2 side of the room under the 1980s poster that you can  
3 sign up, and if you do that, by the end of the day, we  
4 will get to you.

5 And with that, we will move to Stuart  
6 Cravens from Will County.

7 Was there someone else that needed to speak  
8 before we start? Okay. Go ahead. I'm sorry. Before  
9 you go and have a seat, Mr. Cravens, there's just some  
10 paperwork.

11 I'm going to enter as an exhibit as Exhibit  
12 52, the Board's Hearing Officer Order of April 18th,  
13 2013, which contains the prefilled questions that the  
14 Board sent out.

15 (Exhibit Number 52 was marked for  
16 identification and admitted into  
17 evidence.)

18 As Exhibit 53, simply because it's the next  
19 one in my pile, we will enter the prefilled questions  
20 filed April 18, 2013 by Illinois Association of  
21 Aggregate Producers.

22 (Exhibit Number 53 was marked for  
23 identification and admitted into  
24 evidence.)

1           And, finally, as Exhibit 54, the prefiled  
2 questions also dated April 19th, 2013 by the People of  
3 the State of Illinois. That is Exhibit 54.

4                         (Exhibit Number 54 was marked for  
5                         identification and admitted into  
6                         evidence.)

7           And with that, can we have you sworn in,  
8 please?

9                         (Witness sworn.)

10

11                         STUART CRAVENS, called as a witness herein,  
12 having been first duly sworn, testified as follows:

13

14                         HEARING OFFICER TIPSORD: And do you have a  
15 clean copy of your testimony to provide as an exhibit?  
16 The copy I have is marked up. Thanks.

17                         If there's no objection, we will enter the  
18 prefiled testimony of Mr. Cravens as Exhibit Number  
19 55. Seeing none, it's Exhibit Number 55.

20                         (Exhibit Number 55 was marked for  
21                         identification and admitted into  
22                         evidence.)

23                         Mr. Cravens, do you want to give us a brief  
24 summary? Go ahead.

1           MR. CRAVENS: Yeah, it will be brief. I'm  
2 not going to repeat the information already provided  
3 by the Will County representatives, state and local,  
4 and the executive. It pretty much adequately summed  
5 up Will County's standing and concerns about  
6 groundwater quality in Will County, the fact that  
7 essentially the entire county is underlain by shallow  
8 aquifers, sand and gravel, principally Silurian  
9 Dolomite.

10           I've spent 30 years of my career dealing  
11 with groundwater contamination, almost wholly in  
12 Illinois, and ten of those years were totally in Cook  
13 County, Kankakee County, and Will County, which is all  
14 Silurian Dolomite, and that area essentially provides  
15 the bulk of groundwater for that entire area of Will  
16 County. There is the Cambrian-Ordovician aquifer,  
17 which provides some groundwater, substantial  
18 groundwater for the Joliet area, but the rest of that  
19 county is relying on shallow groundwater in the  
20 Dolomite, a little bit of sand and gravel.

21           Essentially, these are very susceptible  
22 aquifers to contamination. They're hooked up to a lot  
23 of community water supplies and domestic well supplies  
24 around the entire county, and they're again, as

1 mentioned earlier, next to the Du Page River and the  
2 Des Plaines River, they're intimately connected with  
3 all the surface water supplies of Will County.

4 As already mentioned, Will County supplies  
5 71 percent of the groundwater to the users. The rest  
6 is Lake Michigan water. The shallow aquifer system in  
7 Will County and northeastern Illinois, in general, is  
8 a resource which exists predominantly within glacial  
9 sand and gravel deposits in the Silurian Dolomite  
10 bedrock.

11 Again, this is a deeper aquifer. The  
12 Cambrian-Ordovician, we're not concerned about that in  
13 this hearing here. What we're concerned about is  
14 contamination of shallow aquifers from CCDD operations  
15 and uncontaminated soil fill operations, and being  
16 that Will County is underlain by aquifers, almost the  
17 entire county, and that there are dozens of community  
18 water supplies, thousands of domestic water supplies  
19 in the county, essentially Will County has more  
20 standing, more so than almost any other county in the  
21 State of Illinois, in terms of where these facilities  
22 are located, how they're managed by the IEPA, how  
23 they're regulated and overseen, and the biggest  
24 concern of Will County and myself, and I think all the

1 residents of Will County, is that they have a true  
2 concern about whether they're going to have impacts of  
3 their groundwater, whether they're going to have  
4 impacts to their health and the environment, and it's  
5 pretty much a no-brainer that in Will County that  
6 we've got shallow aquifers and Dolomite, which  
7 essentially if it's contaminated, in a matter of days  
8 or weeks, this groundwater can travel tens to hundreds  
9 of feet. I mean, you're talking fractured bedrock,  
10 and if you put a contaminant in fractured bedrock and  
11 allow that to travel, over a period of weeks or  
12 months, it can literally travel ten feet, a hundred  
13 feet, or even further, and we've seen this in case  
14 after case in Kankakee County, Cook County, Will  
15 County, where we do have contaminants and where  
16 they've had to do some large cleanups because of that.

17 So Will County's standing, basically, is  
18 because of the Dolomite. The Dolomite itself -- just  
19 a quick preview; I'm not going to go into all of it.  
20 We addressed every question we wanted to in the  
21 testimony, and you can read this and we'll take  
22 questions about all of that.

23 But the Dolomite is 100 to 150 feet thick at  
24 the top where it's very prone to contaminants and to

1 contaminant movement. It can be 3, 4, 500 feet thick,  
2 but we're concerned about that upper 100, upper 150  
3 feet, more so than anyplace else, because that's what  
4 most people are drawing their drinking water out of,  
5 and that's what's connected to the waterways in the  
6 county.

7           The Dolomite; basically, water moves through  
8 it with large openings and fractures and big planer  
9 openings where the bedrock has bedding planes. These  
10 same features which make it a great source of drinking  
11 water also make it a great place where contaminants  
12 can move quickly. So what makes something a good  
13 drinking water supply, makes it also more susceptible  
14 to contamination.

15           So this is a Class I groundwater resource.  
16 It's not a hard bedrock where they can just put it in  
17 there like it's a piece of ceramic or a ceramic bowl  
18 and it just sits there. These are unlined CCD fill  
19 operations. When you put material in there, it's  
20 going to move. And, again, they may put a head on --  
21 they may put a groundwater withdrawal on that and  
22 create a head towards that facility, but they're not  
23 going to maintain that year round.

24           We honestly believe that you need to do

1 groundwater monitoring year round because things move  
2 very quickly through this material, because you do  
3 have quarterly geochemical changes, because you do  
4 have rainfall changes, seasonal changes, because you  
5 have surface water level changes.

6           If you remember this spring, look how  
7 quickly the Illinois River and all the rivers up there  
8 flooded. Well, those rapid changes are also affecting  
9 groundwater, and you may have groundwater flowing  
10 towards the rivers nine months of the year. You get  
11 one flood event, and the groundwater is moving in the  
12 opposite direction. So these gradients and these  
13 directions, they change. They don't change -- they  
14 don't stay stable year round. They can switch very  
15 quickly. They can change quarterly; they can change  
16 semiannually. One year doesn't dictate how the  
17 groundwater's going to move the next year,  
18 necessarily, so we strongly believe that initially at  
19 these facilities, we should be doing quarterly  
20 groundwater monitoring and not annual, and to do a  
21 statistical background, and this is in the interest of  
22 these operations, the CCDDs.

23           If you do quarterly groundwater monitoring,  
24 you're going to get a nice statistical background, and



1 that's for the protection of everybody. If you just  
2 do one round of sampling, you can't even do statistics  
3 on one round. One point, you can't do statistics  
4 with, but if we do a background groundwater quality of  
5 four quarters, initially, to establish a nice baseline  
6 of what is groundwater out here, what's happening with  
7 it over the course of the year, then you can go in and  
8 actually, in the future, once you have that baseline,  
9 you can go to annual or semiannual. You can actually  
10 have parameters that are monitored quarterly, or you  
11 can have some parameters which are monitored annually.  
12 So you could have a larger set of parameters on an  
13 annual basis, like a full set of 620s, but then you  
14 can have a subset on a quarterly basis where maybe  
15 you're only doing six or seven parameters, which have  
16 been shown to be impacted by the CCDDs.

17 So what we're trying to do here is say we  
18 agree with IEPA a hundred percent what they're doing;  
19 we agree with almost everything in the regulations; we  
20 would even like to see them toughened up a little bit  
21 more in terms of what statistical procedures are you  
22 using? Can we actually get quarterly monitoring and  
23 background monitoring in there initially, and then we  
24 can go to other levels of monitoring and different

1 sets of parameters, but at the front here, we don't  
2 know what we're dealing with. Let's do the full set  
3 of 620s. Let's do quarterly monitoring. Let's get a  
4 good baseline, find out exactly what's happening at  
5 these places, and we don't know what is happening, and  
6 that's the bottom line, and then once we have that,  
7 then we can then go to more reasonable monitoring.

8           Is it going to be economically burdensome?  
9 I absolutely do not believe so. There's a lot of  
10 numbers put forth by the ag producers, by waste  
11 management, IEPA, PFC on behalf of Will County put  
12 together their numbers, and our numbers were based on  
13 Illinois EPA LUST reimbursement rates, so they're not  
14 unreasonable. And some of the costs that were thrown  
15 out there in the past were for different cases than a  
16 normal monitoring situation. So we think that  
17 monitoring can be done very cost effectively.

18           The bottom line is, if there's good  
19 monitoring done upfront, and if these places really  
20 aren't causing impact, then all of these other issues  
21 about corrective actions, and when should there be  
22 corrective actions, and is it 90 days, or 180 days, or  
23 360 days, it's sort of a moot point.

24           You're saying there's no impact, you're

1 saying there's not going to be corrective actions  
2 because there's no contamination to these aquifers  
3 from these CCDDs. So, essentially, in terms of how  
4 strict the back end of things are, it's sort of a moot  
5 point because if you're not impacting and you're  
6 taking good background groundwater samples, and you do  
7 some good quarterly monitoring up front, everybody  
8 should be happy because you've got the data, the  
9 public's not going to distrust you, the county will  
10 feel confident that you're doing what you need to be  
11 doing, and essentially a lot of these, more what might  
12 be considered stringent regulatory items, are going to  
13 be a moot point, and I'll leave it at that.

14           Again, we answered every question we felt  
15 that we had a good say on, in terms of some of the  
16 science and some of the regulations, and we'll be glad  
17 to take all your questions. Thank you.

18           HEARING OFFICER TIPSORD: Thank you. Are  
19 there any questions? Yes, sir.

20           MR. WILCOX: Greg Wilcox with the Land  
21 Reclamation Recycling Association.

22           You mentioned a lot of these sites are next  
23 to the Des Plaines River and to major waterways.

24           MR. CRAVENS: Yes.

1 MR. WILCOX: Can you explain the connection  
2 why -- is that a concern to you that their location is  
3 next to the waterway? And how does -- I'm not sure  
4 what you're trying to -- the point you're making  
5 there.

6 MR. CRAVENS: Well, the fact is, when you  
7 have bedrock and Dolomite that's next to the  
8 waterways, the groundwater moves -- it's going to move  
9 towards waterways sometimes. Sometimes if waterways  
10 are in flood, they will actually move towards some of  
11 these quarries. But essentially when you have  
12 fractured Dolomite sand and gravel next to waterways,  
13 you have groundwater moving, and if it's impacted,  
14 it's going to move into those waterways. I mean,  
15 there is an integral connection between the shallow  
16 materials and the waterways in Illinois.

17 MR. WILCOX: So your concern is sometimes  
18 the fill in the CCDD sites, the water may move into  
19 the Des Plaines River.

20 MR. CRAVENS: Well, yeah. There's a  
21 potential always when you've got any kind of operation  
22 like that, the groundwater is going to be moving into  
23 rivers, and sometimes it moves away from the rivers.  
24 It depends on the pumping.

1           If you have a huge pumping counter  
2 depression from a lot of wells and supplies, you could  
3 actually have water moving towards CCDs or any kind  
4 of -- one location towards those pumping cones, and  
5 those cones can -- you know, can actually move water  
6 away from waterways and away from those CCDDs to the  
7 pumping water supplies.

8           So water is going to move any direction  
9 where it's being pumped or discharged, via rivers,  
10 towards quarries. I mean, there's a --

11           MR. WILCOX: Are you saying you're concerned  
12 that the contaminants in the Des Plaines River may  
13 move into the quarry, or are you concerned that the  
14 contaminants that may be in the quarry will move into  
15 the Des Plaines River?

16           MR. CRAVENS: Well, the concern is that the  
17 contaminants in the quarry could move into the Des  
18 Plaines River during periods of time. I mean, they'll  
19 move into the river or any kind of water supplies  
20 between the river or the quarry. I mean, but when  
21 rivers are in flood, there is also a backflow from the  
22 river a certain distance through those same materials,  
23 which is why we want quarterly monitoring.

24           If you just do monitoring once a year and

1 you do it in the summer, well, the groundwater is  
2 always going to be typically moving towards these  
3 rivers, but during a flood event, you're going to get  
4 a backflow in some cases -- I'm not saying any  
5 particular location or any particular river -- but  
6 I've seen all over the state when the Mississippi  
7 River is in flood, we'll get water moving back into  
8 bottomlands from these rivers back into these areas,  
9 which is why one sample point is not going to give you  
10 what the background groundwater quality is for the  
11 entire year.

12 MR. WILCOX: Would you at all be concerned,  
13 then, if the cost of monitoring, although you may  
14 consider it inexpensive, if it's not fiscally, you  
15 know, they can't make it work, and they close down the  
16 filling of that quarry, would you be concerned that  
17 the rivers may flow directly into the quarry, which  
18 would then have direct contact with the river water  
19 going right to your groundwater aquifer.

20 I'm not totally familiar with the Des  
21 Plaines River, but I don't think it meets groundwater  
22 one standards.

23 MR. CRAVENS: Yeah. Well, the thing is,  
24 when you've got a river, when there's a flow reversal,

1 it's for a short period of time, so what I've seen in  
2 groundwater wells, again, all over the state is,  
3 you'll have eleven and a half months -- you know,  
4 depending on the year. I mean, last year, we had a  
5 drought, so water was always moving towards the  
6 rivers. But there's always the potential when you  
7 have a big flood event during that short period of  
8 time, during that flood event when the hydrograph goes  
9 up, that you're going to get water going back into  
10 those wells, and you're going to get a change in water  
11 quality in those wells.

12 I mean, the bottom line is that the river's  
13 in flood and you have areas around it flooded, you're  
14 getting water moving from rivers back into that  
15 groundwater system. But, again, that's a very short  
16 event, hydrographs are up, you're getting water moving  
17 back from the rivers for a short period of time. They  
18 come back down in your normal groundwater flow  
19 direction back into those waterways.

20 MR. WILCOX: My simple question is, would  
21 you rather see the quarries filled with soil, or  
22 empty, so that water could go directly into the rock?

23 MR. CRAVENS: I don't have -- I mean, I  
24 guess I haven't thought about that question. I mean,

1 in terms of -- optimally, you wouldn't have any holes  
2 in the ground and you would just have --

3 MR. WILCOX: Right, but it's there.

4 MR. CRAVENS: Yes, and there's a hole in the  
5 ground there.

6 So, optimally, whether there's a hole in the  
7 ground or not, I mean, you could say let's leave a  
8 hole, and if someone's willing to take on the  
9 liability, we have a nice swimming hole there, and you  
10 could make it into some kind of a park. I mean,  
11 there's plenty of places and other places around the  
12 state, and they make it into a national park or donate  
13 it to the nearby community and they make a park out of  
14 it.

15 So I don't have any druthers in terms of  
16 what to make it into. I'm just saying the dynamic  
17 nature of groundwater requires, in my mind, that you  
18 do quarterly monitoring upfront to look at what your  
19 variability is in groundwater quality, background, and  
20 downgradient.

21 MR. WILCOX: Thank you.

22 HEARING OFFICER TIPSORD: Go ahead.

23 MR. HOWARD: Bob Howard, Will County Board  
24 Member, District 1.



1 I have a question. Just -- it's a two-part  
2 question. Basically, the first part of it is, let's  
3 say the quarry is filled in with construction debris,  
4 whether shingles or clean construction debris or  
5 whatever it might be, now, what percentage of that is  
6 going to be water inside of that?

7 And the second part is, if it's a higher  
8 percentage of water and you get that hydrostatic  
9 pressure to where that's going to constantly want to  
10 leave that area because it's always going to be at a  
11 greater volume --

12 MR. CRAVENS: Okay, yeah. What's going to  
13 drive groundwater from one of these facilities  
14 outwards is if the water level in there is higher than  
15 off site. So the porosity is not the feature.  
16 Typically, porosity of materials is going to be 10,  
17 15, 20; high end, 30 percent maybe. Porosity of  
18 something like that, you know, with compaction,  
19 demolition debris, I mean, you can't equate soil  
20 versus putting in concrete and stuff, but, I mean,  
21 concrete is a solid mass, so I hate to even give a  
22 percentage of what that porosity would be, but natural  
23 materials are going to be, you know, 10 to 25, you  
24 know, maybe maximum 30 percent typically, but in terms

1 of what drives water out into the surrounding area  
2 away from these facilities would be if the ultimate  
3 water table there is higher than the surrounding area,  
4 groundwater is going to flow in that direction. Just  
5 like if the river level's here, and the water level in  
6 the quarry's here, that water is going to move towards  
7 the river.

8 If you've got a pumping well that's pumping  
9 a thousand gallons a minute a mile away and they're  
10 creating a big cone of depression that reaches towards  
11 that operation, basically that water is then going to  
12 want to flow towards that pumping well. So it's going  
13 to flow from high water levels to the low water levels  
14 wherever that is.

15 MR. HOWARD: So without compaction, what's  
16 going to happen, then? Basically that's going to hold  
17 more water than the limestone as --

18 MR. CRAVENS: Yeah, because of the porosity.

19 HEARING OFFICER TIPSORD: Let him finish his  
20 question because the court reporter can't get you both  
21 down if you're talking at the same time.

22 MR. HOWARD: So what's going to happen is  
23 basically that's going to have a higher volume of  
24 water in it, so that as you've got the natural bedrock

1 around it, these wells, once you sink the residential  
2 wells, or whatever type of other wells you're going to  
3 have, there's going to be a natural movement of water  
4 out of that area because that's going to have more  
5 water in it than next to it, so it's going to move it  
6 towards the wells; correct?

7 MR. CRAVENS: Only as long as the water  
8 level overall, the top elevation of the water in that  
9 is higher than the surrounding area. The fact that  
10 it's more porous, it does mean there's a lot of water  
11 and potentially a lot stored there, but it can't move  
12 any quicker than what the permeability is of the  
13 surrounding sand and gravel or bedrock.

14 But correct, though. The water level in  
15 there is going to dictate which direction it's going  
16 to flow.

17 MR. HOWARD: Thank you.

18 HEARING OFFICER TIPSORD: Any other  
19 questions?

20 MR. HENRIKSEN: Good morning. John  
21 Henriksen with the Illinois Association of Aggregate  
22 Producers.

23 Going back to your initial part of your  
24 paper, Mr. Cravens, you mentioned based on years of

1 overseeing CCDD fill operations that Will County  
2 strongly supports the implementation of groundwater  
3 monitoring at these facilities.

4 HEARING OFFICER TIPSORD: Excuse me,  
5 Mr. Henriksen. For the record, that's page 1 of  
6 Exhibit 55.

7 MR. HENRIKSEN: Thank you, Ms. Tipsord.

8 So during the course of the oversight that  
9 you refer to on page 1, has Will County identified  
10 instances of groundwater contamination suspected to  
11 have been caused by CCDD or uncontaminated soil  
12 facilities?

13 MR. CRAVENS: I would have to recuse myself  
14 from that, basically because I was not responsible for  
15 overseeing the CCDD facilities in Will County, so I do  
16 have someone here from Will County that can speak to  
17 that.

18 UNIDENTIFIED SPEAKER: We've been inspecting  
19 them the last few years, and IEPA delegated --

20 HEARING OFFICER TIPSORD: Excuse me. We  
21 need you to identify yourself and we also need to  
22 swear you in.

23 MR. CRAVENS: Well, I can't speak to that  
24 basically because I myself don't have the data that

1 Will County collected. So this statement is on behalf  
2 of Will County, but essentially can we point to a  
3 specific facility that has groundwater impact, I  
4 cannot state a facility that does, because there's no  
5 data, there's no groundwater monitoring. So there's  
6 no -- there's no there-there, because we don't have  
7 any monitoring data.

8 MR. HENRIKSEN: So you're not aware of any  
9 instances of groundwater contamination at this time;  
10 correct?

11 MR. CRAVENS: I am not aware of any  
12 contamination at this time; that's correct.

13 MR. HENRIKSEN: Thank you.

14 On page 3 of Will County's submittal under  
15 Costs of Groundwater Monitoring questions 1 and 2,  
16 you -- there's mentioned some specific costs for -- to  
17 implement groundwater monitoring at these sites, based  
18 on various assumptions.

19 MR. CRAVENS: Yes.

20 MR. HENRIKSEN: What assumptions did Will  
21 County come up with, or what assumptions did Will  
22 County use to determine what it's going to cost to set  
23 up a groundwater monitoring program at one of these  
24 facilities?

1           MR. CRAVENS: Okay. Well -- and again,  
2 there is -- we referenced previous testimony in  
3 submittals dated November 27th from the Will County  
4 Executive, Mr. Walsh, okay, the Will County Board  
5 Chairman. We provided all that backup in prior  
6 testimony and documents, so that is out there, but I  
7 will reiterate that it was based on five monitoring  
8 wells to 120 feet in bedrock overseen by a hydro  
9 geologist using Illinois EPA LUST reimbursement rates,  
10 and it was annual cost of sample analyzed for the  
11 modified 620 list, and those annual -- that initial  
12 round of installation costs reporting came to  
13 \$156,300. That wasn't an annual recurring cost, but  
14 that was an upfront initial cost.

15           The annual cost of samples and analyzed for  
16 the modified 620 list and filed with the Annual Report  
17 for those five wells -- and we even put a duplicate  
18 sample in there, so it was six analyses -- was  
19 \$18,700. And again, I've got the backup here. Again,  
20 we've got all the backup that was filed previously --  
21 it's in prior documents -- and we can provide that  
22 again and break it down, you know, in multiple ways,  
23 if that's necessary.

24           HEARING OFFICER TIPSORD: Excuse me. I

1 apologize for interrupting again, but for the record,  
2 620 List of Parameters is the 35 Ill. Adm. Code 620  
3 List. That is the Board's rule on groundwater  
4 monitoring; correct?

5 MR. CRAVENS: That's correct. And basically  
6 it does not include the correction 1100 Appendix A  
7 parameters. Those were removed from what they want  
8 required for monitoring.

9 HEARING OFFICER TIPSORD: And that's the  
10 groundwater quality standards.

11 And the submittal -- you referred to it as  
12 testimony a couple of times -- the submittal from  
13 November 27, 2012 is actually a Public Comment and not  
14 testimony.

15 MR. CRAVENS: Okay, yeah. Sorry. That was  
16 the letter.

17 HEARING OFFICER TIPSORD: Just to note that  
18 for the record. Thank you. Sorry to interrupt.

19 MR. HENRIKSEN: Thank you.

20 And these costs are based on annual, an  
21 annual monitoring program versus a quarterly  
22 monitoring program?

23 MR. CRAVENS: These original costs which  
24 were developed were based on an annual, correct.

1 MR. HENRIKSEN: So a quarterly program would  
2 be more expensive.

3 MR. CRAVENS: Depending on how it was  
4 implemented. And again, we've said upfront background  
5 quarterly monitoring, not quarterly each and every  
6 year, because what happens is, if you do quarterly  
7 initially you get your statistical background, which  
8 again, is to the benefit of operators because it gives  
9 you a larger range of concentrations by doing  
10 quarterly monitoring, and then subsequently it would  
11 be, you'd do these parameters, and you could move  
12 those down to a semiannual and annual basis, based on  
13 the results.

14 MR. HENRIKSEN: During this oversight, you  
15 referred to, has Will County collected tipping fees  
16 from these CCDD facilities.

17 MR. CRAVENS: Again, I can't speak to that.  
18 I do not know what Will County charges in terms of  
19 tipping fees for these facilities.

20 MR. HENRIKSEN: Well, my question is, have  
21 they been collecting tipping fees?

22 MR. CRAVENS: I believe so, yeah.

23 MR. HENRIKSEN: Were any of these fees used  
24 to conduct tests on the materials deposited in these



1 facilities?

2 MR. CRAVENS: Not to my knowledge, but I  
3 can't speak to that whether they have tested or not.

4 MR. HENRIKSEN: Will County never tests  
5 these materials to determine if they contain  
6 contaminants that might leach in the groundwater?

7 MR. CRAVENS: Again, I am not Will County's  
8 hydrologist that works with the CCDD operations, so I  
9 would not know that.

10 HEARING OFFICER TIPSORD: I guess we don't  
11 have an answer to that.

12 MR. HENRIKSEN: On page 3 of your testimony,  
13 for the Parameters to be Monitored, there's a  
14 statement: Rationale: VOCs are not a reliable  
15 indicator of the presence of PAHs or other  
16 semi-volatile organic contaminants, such as those  
17 present in asphalt, roofing materials, and some other  
18 building materials.

19 Now, the PAHs you refer to, that's an  
20 acronym for polycyclic aromatic hydrocarbons; is that  
21 correct?

22 MR. CRAVENS: Polycyclic. Some people call  
23 them polynuclear, yeah.

24 MR. HENRIKSEN: PNAs are polynuclear.

1 MR. CRAVENS: Right.

2 MR. HENRIKSEN: Okay. And you refer to  
3 roofing materials. You're aware that roofing  
4 materials are not disposed of lawfully at CCDD sites;  
5 correct?

6 MR. CRAVENS: Currently, under current  
7 regulations, correct.

8 MR. HENRIKSEN: And referring to building  
9 materials, under the law, you're aware, I trust, that  
10 the only building materials that issued today are,  
11 quote, uncontaminated broken concrete without  
12 protruding metal bars, bricks, rocks, stone, reclaimed  
13 or other asphalt pavement, or soil generated from  
14 construction or demolition activities; correct?

15 MR. CRAVENS: That's correct.

16 MR. HENRIKSEN: Now, is it your position  
17 that the PAHs in the asphalt pavements that are  
18 disposed of at these facilities create a threat of  
19 groundwater contamination?

20 MR. CRAVENS: There is a potential threat of  
21 contamination by any of these materials put into the  
22 ground. That's my opinion.

23 MR. HENRIKSEN: For asphalt paving in  
24 particular? Because that's mentioned in your paper.

1 MR. CRAVENS: Yeah. Asphalt pavement could  
2 actually have the potential to cause impact to  
3 groundwater, yes.

4 MR. HENRIKSEN: Do you have test results  
5 showing that asphalt and reclaimed or other asphalt  
6 pavement leaches PAHs into groundwater?

7 MR. CRAVENS: I do not have that evidence  
8 with me, no.

9 MR. HENRIKSEN: Are you aware of any test  
10 results showing that asphalt and reclaimed or other  
11 asphalt pavement leaches PAHs into groundwater?

12 MR. CRAVENS: I am aware of documents out  
13 there which, again, we can produce, if asked to.

14 MR. HENRIKSEN: Attached to the --

15 HEARING OFFICER TIPSORD: Excuse me. The  
16 Board would ask that you move.

17 MR. HENRIKSEN: And, specifically, my  
18 question was about reclaimed or other asphalt  
19 pavement, because what this is about is, those  
20 materials, not asphalt per se, which is, as we'll see  
21 later today, that they're different.

22 MR. CRAVENS: Okay. So you're asking  
23 asphalt pavement specifically, not asphalt.

24 MR. HENRIKSEN: I'm asking what -- the law

1 refers to reclaimed or other asphalt pavement. So do  
2 you have any test results -- and that's what goes into  
3 these sites; reclaimed or other asphalt pavement.

4 MR. CRAVENS: Okay. I will -- if I have  
5 that information, I will provide it to the Board.

6 MR. HENRIKSEN: Thank you.

7 The last part of your submittal has  
8 attachments; one, in particular, is called Figure 1,  
9 Permitted Clean Construction & Demolition Debris Sites  
10 with Reported Wellhead Locations in Will County, and  
11 you're aware of that chart.

12 MR. CRAVENS: Yes, uh-huh.

13 MR. HENRIKSEN: So what does this map  
14 purport to show?

15 MR. CRAVENS: The CCDD facilities. It's  
16 just basically showing all the facilities in that  
17 portion of Will County, and their location, their  
18 size, and what waterways they're adjacent to. You're  
19 looking at Figure 1; correct?

20 MR. HENRIKSEN: Yes, sir; Figure 1.

21 MR. CRAVENS: It's just a demonstration of  
22 the facilities in Will County.

23 MR. HENRIKSEN: And also, I guess, well  
24 locations?

1 MR. CRAVENS: That was Figure 3.

2 MR. HENRIKSEN: Figure 1 says Permitted CCDD  
3 sites with Reported Wellhead Locations.

4 MR. CRAVENS: Oh, yeah. That came from Will  
5 County. That one's got wellhead locations, correct.

6 And then there was another figure, Figure 3,  
7 which showed other water supplies in Will County, the  
8 community water supplies.

9 MR. HENRIKSEN: Did you plot the locations  
10 of these sites on this map?

11 MR. CRAVENS: No, I did not.

12 MR. HENRIKSEN: Who plotted these locations?

13 MR. CRAVENS: Those were provided by Will  
14 County.

15 MR. HENRIKSEN: So you don't know if these  
16 are an accurate depiction of these site locations or  
17 not, do you?

18 MR. CRAVENS: Well, typically, when you have  
19 well locations, you get them from a database, and you  
20 can ground truth those, but essentially when you plot  
21 those data points, you can sometimes find even more  
22 wells out there. Whether they're accurate to within  
23 100 feet or 200 feet, I can't speak to that.

24 MR. HENRIKSEN: And forgive me. I'm not

1 being clear. I'm specifically talking about the CCDD  
2 sites that are shown in this map. Are those sites --  
3 is this an accurate depiction of where those sites are  
4 located, to your knowledge?

5 MR. CRAVENS: To my knowledge, they are,  
6 yeah.

7 MR. HENRIKSEN: And have you gone out and  
8 looked at these sites to see?

9 MR. CRAVENS: No, I have not. No.

10 MR. HENRIKSEN: So -- but it's your  
11 understanding this is a correct depiction of the  
12 location of these sites?

13 MR. CRAVENS: Yes, that is correct.

14 HEARING OFFICER TIPSORD: Mr. Henriksen,  
15 before you move on from that figure, I would like to  
16 ask this question. This is not just Will County,  
17 though, in this depiction, correct? I mean,  
18 Naperville, Bolingbrook are shown?

19 MR. CRAVENS: Yes. That map extends beyond  
20 Will County, yeah.

21 MR. HENRIKSEN: Thank you. Thank you.

22 And again, just so I understand, you're not  
23 aware of any test results that Will County has showing  
24 that the CCDD or uncontaminated soil facilities that

1 are proximate to these water sources have caused  
2 contamination; correct?

3 MR. CRAVENS: Correct.

4 MR. HENRIKSEN: Thank you. And thank you.

5 HEARING OFFICER TIPSORD: Mr. Huff, do you  
6 have questions?

7 MR. HUFF: Mr. Cravens, have you --

8 HEARING OFFICER TIPSORD: Mr. Huff, identify  
9 yourself for the court reporter.

10 MR. HUFF: James Huff, Huff & Huff,  
11 Incorporated, H-U-F-F.

12 Have you read the Agency's Response to  
13 Prefiled Questions?

14 MR. CRAVENS: I read a good portion of the  
15 Response.

16 MR. HUFF: So they talk about they provided  
17 some additional data on a CCDD facility that installed  
18 monitoring wells. There are eight monitoring wells  
19 that they put in, and all eight exceed the manganese  
20 and iron 620 standards. Would you have any  
21 explanation for those exceedances, what could be the  
22 possible causes of those?

23 MR. CRAVENS: Did you have -- which facility  
24 was that, first of all, that you're referring to?

1 MR. HUFF: The Bloom Township, the Einoder  
2 site, E-I-N-O-D-E-R.

3 MR. CRAVENS: And which county is that in?

4 MR. HUFF: Bloom Township. I'm not sure  
5 what county. But it's just the presence of iron and  
6 manganese in every single well.

7 MR. CRAVENS: Yes, which is the reason to do  
8 background groundwater monitoring.

9 Manganese and iron are also naturally  
10 occurring, and you see those naturally in groundwater  
11 at the low and high concentrations.

12 You see them -- also manganese can be  
13 naturally occurring in sediments and adjacent to  
14 rivers. Under high reducing stations, you get more  
15 manganese. So, essentially, you can have exceedances  
16 of manganese and iron naturally occurring in wells in  
17 the middle of an open field, even, conceivably. But,  
18 again, that speaks to why you need to do background  
19 sampling to show that they are naturally occurring  
20 versus if they're being affected by some other source  
21 of impact that's elevating them naturally.

22 MR. HUFF: Do you have any --

23 MR. CRAVENS: Or unnaturally occurring.

24 MR. HUFF: Do you have any opinion on



1 dissolved versus total metals?

2 MR. CRAVENS: Yes. My opinion is, when  
3 you're actually doing groundwater modeling and  
4 transport equations, when you're actually monitoring  
5 at the facility that I'm -- I'm perfectly happy with  
6 monitoring for dissolved, but the bottom line is, when  
7 people drink water out of a well, they're not drinking  
8 dissolved, they're drinking total. They're drinking  
9 everything that's in the water, not just the  
10 dissolved.

11 But in terms of background, statistical  
12 monitoring, and for groundwater transport equations,  
13 I'm perfectly comfortable with just dissolved.

14 MR. HUFF: So under the drinking water  
15 standards for community water supplies, is there a  
16 turbidity standard?

17 MR. CRAVENS: For -- I am not sure for  
18 public water supply. I can't -- EPA, I'd hope that  
19 they can say. I don't know if there is a turbidity  
20 standard for public.

21 MR. HUFF: If we assume that there is one  
22 NTU standard on public water supplies, then that would  
23 be a relatively low sediment concentration, to give  
24 you one NTU?

1 MR. CRAVENS: Yeah, that is a very low  
2 turbidity.

3 MR. HUFF: So if that's the standard, then  
4 go back to the question that is total dissolved,  
5 whether total is really appropriate in a monitoring  
6 well where you can potentially have very high levels  
7 of sediment.

8 MR. CRAVENS: Yeah, but when I've done --  
9 I've done a lot of total dissolved monitoring, and  
10 when I have high turbidity or low turbidity, in terms  
11 of doing the total dissolved, I don't see --  
12 typically, I haven't seen a big change in terms of  
13 total dissolved content, so.

14 I mean, turbidity definitely has an impact  
15 on certain things, and metals and what not, so  
16 turbidity is a big deal to worry about, but in terms  
17 of, as long as you do good background groundwater  
18 monitoring, and you develop the wells correctly and do  
19 a good job, I think turbidity should not be an issue.  
20 Especially in the bedrock terrain, I would think  
21 turbidity would not be a big issue in terms of  
22 monitoring.

23 MR. HUFF: If the wells are screened into a  
24 silty clay over the bedrock, same?

1 MR. CRAVENS: Yeah. Then turbidity would be  
2 an issue. Yeah, I would probably push for low flow  
3 groundwater monitoring to minimize that turbidity.

4 MR. HUFF: As opposed to dissolved  
5 monitoring.

6 MR. CRAVENS: Why I say low flow is just  
7 when you actually pump the well, just pump at a very  
8 slow rate so you don't create a lot of turbulence in  
9 the well, so I would minimize my flow rate so that you  
10 get a good groundwater sample that's very  
11 representative, limiting turbidity basically, so.

12 MR. HUFF: Thank you.

13 HEARING OFFICER TIPSORD: Mr. Howard, do you  
14 want to talk?

15 MR. HOWARD: Bob Howard with the County  
16 Board again.

17 Just for clarification in my mind, let's say  
18 a building is demoed, and there's a lot of materials  
19 that are crushed as you started to tear down the  
20 building and you go down, and we're going to take the  
21 brick and we're going to take the mortar, the remnants  
22 of it, we're going to take the concrete, and we're  
23 going to dump it into the quarry. But the clean --  
24 the name clean, they don't clean that debris before

1 they bring it to the quarry, so anything that's  
2 attached to the brick, whether it's plaster, whether  
3 it's paint, whether you get remnants of the roof in  
4 there, as far as dust or anything like that, that's  
5 going to be dumped into the quarry. So the term  
6 "clean construction debris," unless it's physically  
7 cleaned is really not a true term?

8 MR. CRAVENS: It's a relativistic term. I  
9 would say by definition of the Board's own definition  
10 of clean construction debris, they call it clean, but  
11 there are going to be corollary materials associated  
12 with that. It won't just be necessarily purely  
13 concrete. There's all the normal things that happen  
14 around the job site.

15 MR. HOWARD: Could that actually enter into  
16 the water supply if it was inside that debris?

17 MR. CRAVENS: Yes.

18 MR. HOWARD: Could it actually contaminate  
19 the water?

20 MR. CRAVENS: Yes. Anything in contact with  
21 that water would impact it.

22 MR. HOWARD: Let's say I purchased a piece  
23 of property adjacent to a quarry. Is there any  
24 restriction on me drilling a well?

1 MR. CRAVENS: No, not at all.

2 MR. HOWARD: Currently?

3 MR. CRAVENS: No.

4 MR. HOWARD: Is there -- so there's no  
5 safety zones, anything as far as that?

6 MR. CRAVENS: Well, when you put in a well,  
7 there's a standard 200 foot setback from that.

8 MR. HOWARD: Okay.

9 MR. CRAVENS: But when you put in a well,  
10 there's no restriction for you to put in a well  
11 whatever distance from a quarry.

12 HEARING OFFICER TIPSORD: And just one  
13 point. The definition of clean construction and  
14 demolition debris is a legislative definition.

15 MR. CRAVENS: Yes.

16 MR. HOWARD: Thank you very much.

17 HEARING OFFICER TIPSORD: Are there any  
18 other questions?

19 MR. HENRIKSEN: Just a couple follow-up  
20 ones.

21 You mentioned, I thought, when you were  
22 testifying, Mr. Cravens, that quarries do not maintain  
23 the cone of influence all year. How did you determine  
24 this?

1 MR. CRAVENS: I believe you're referring  
2 to -- would you refer to the page?

3 Oh. Yeah. I mentioned that in my written  
4 testimony that --

5 So your question is, do they not maintain a  
6 negative groundwater withdrawal rate all year?

7 MR. HENRIKSEN: By review of this, we take  
8 away that you don't think that quarries maintain the  
9 cone of influence all year. How do you come to that  
10 conclusion?

11 MR. CRAVENS: There's no way to guarantee  
12 that. I can't say they don't or they do. I'm saying  
13 that quarries, they -- they would need to have a  
14 pretty good extensive level of monitoring to show that  
15 they're maintaining a negative drawdown into the  
16 quarry year round. I mean, basically, if they say  
17 they do, what's the proof that they are maintaining  
18 that year round?

19 MR. HENRIKSEN: Are you aware that the  
20 quarries pump year round so they don't fill up?

21 MR. CRAVENS: Correct. I am aware of that,  
22 yes.

23 MR. HENRIKSEN: So -- and they maintain the  
24 cone of influence through that.

1 MR. CRAVENS: Yeah, but pumps go down. I  
2 mean, things -- are they actually literally  
3 maintaining that cone 365 days a year. I don't know.  
4 That would be for them to demonstrate, I would  
5 imagine.

6 MR. HENRIKSEN: When you're speaking about  
7 the assumptions of costs of a water monitoring  
8 program, I believe I heard you say that the assumption  
9 was the wells are to be at 120 feet deep.

10 MR. CRAVENS: Yes. That was just a  
11 conservative assumption made that you were going to be  
12 getting down to the base of some of these deeper  
13 facilities. So it's just meant to be conservative and  
14 not say 30 foot wells that you might see in sand and  
15 gravel or something. We went deeper down, just to be  
16 conservative, into the bedrock. We could have used  
17 100, 120; we just used 120.

18 MR. HENRIKSEN: So it's your thinking,  
19 Mr. Cravens, that a 120-foot well would be sufficient?

20 MR. CRAVENS: For some locations, it might  
21 be sufficient. For some locations, it might be too  
22 deep. You know, I would tend to think in most places,  
23 120 feet would probably be sufficient, but again, each  
24 individual quarry, how deep it is, you know, I

1 can't -- you know, I have wells that are anywhere from  
2 10 feet deep to 400 feet deep, so I can't speak to any  
3 specific facility in the state or any given location,  
4 and that was just a generic number we came up with  
5 that seemed reasonable for a slurry Dolomite.

6 MR. HENRIKSEN: Did that number, this  
7 generic number, was that generated by the average  
8 depth of quarries that exist in Will County?

9 MR. CRAVENS: No. It was not based on any  
10 depth of any quarry.

11 MR. HENRIKSEN: Thank you very much.

12 HEARING OFFICER TIPSORD: Anything further?

13 MR. RAO: I do.

14 Mr. Cravens, you talked a lot about  
15 establishing background in these monitoring wells  
16 around the CCDD facilities.

17 I just want to clarify whether you're  
18 suggesting that we establish background levels for all  
19 the wells, if there are five or eight wells, or just  
20 upgradient wells.

21 MR. CRAVENS: My suggestion would be that  
22 you'd actually establish a background for all your  
23 wells; so you go out, you do four quarters of  
24 monitoring would be a minimal, so you have four data



1 points, and you do your background and your  
2 downgradient. That would be optimal.

3 MR. RAO: Okay. And once you establish the  
4 background, then you can switch to --

5 MR. CRAVENS: Yes. Once you establish that  
6 background and you've looked at, oh, okay, 80 percent  
7 of our parameters are non-detects, then you can pare  
8 that down and do semiannual or annual for a smaller  
9 subset of parameters, and even conceivably a smaller  
10 subset of wells.

11 Like, the idea if you put in X number of  
12 wells that you have to keep those wells forever, you  
13 know, I think it's a thing that you get that initial  
14 data, it's very interactive. Oh, okay. We don't have  
15 these parameters. Let's knock that down. Let's knock  
16 down on monitoring.

17 But that initial background is key; it's key  
18 to a full hydrologic year, what's happening over a  
19 whole year, seasonal, with the local water levels.  
20 There's more pumping.

21 One example, down in Kankakee County, we did  
22 a study down there and the water was always flowing  
23 into the Kankakee River year round, and there was a  
24 regular flow there, but during the summer when there

1 was massive pumpage from irrigation, there was  
2 actually -- the river became a losing river and fed  
3 out into the surrounding aquifer and into these  
4 irrigation wells.

5 So it's a very dynamic system, especially  
6 with increased groundwater usage. So I think you need  
7 four quarterly monitoring events at the get-go and  
8 then you can move on from there.

9 MR. RAO: Thank you.

10 HEARING OFFICER TIPSORD: Anything further?  
11 Thank you very much. Oh, I'm sorry.

12 MR. SYLVESTER: I have one quick follow-up  
13 question.

14 HEARING OFFICER TIPSORD: Mr. Sylvester?

15 MR. SYLVESTER: Mr. Sylvester from the  
16 Attorney General's Office.

17 You talked about the four quarters of  
18 groundwater monitoring in the first year. Is there a  
19 situation where you need to continue to do quarterly  
20 groundwater monitoring?

21 MR. CRAVENS: Oh, yes. I mean, there is  
22 plenty of facilities where we continue to do  
23 quarterly, and then at some point when we've shown  
24 that where we do have contaminants, that those

1 contaminants have been declining, we decrease the  
2 monitoring.

3 But, yeah, we do have quarterly that  
4 continues on beyond the first year, if there is  
5 impact. If there's no impact and it's been shown  
6 there's no impact, then that could be over time  
7 knocked down to semiannual or annual, and I've got  
8 plenty of sites through Illinois EPA where we've  
9 knocked down over the years to lower levels of  
10 monitoring and parameters over time because we're not  
11 seeing anything there, so.

12 MR. SYLVESTER: What would the circumstances  
13 be if you had to check for, say, two quarters? How  
14 many more quarters would you need before you'd feel  
15 comfortable going to either a semi or annual  
16 evaluation?

17 MR. CRAVENS: For me, if you're in a  
18 quarterly monitoring mode and you have impact, once  
19 you've shown that you have impact for the environment  
20 or into a downgradient monitoring well or a compliance  
21 monitoring well, typically, that's going to go on.  
22 You know, I always put in our documents three to five  
23 years you're going to do that, and then you can pare  
24 down from there, then go to a semi-annual or an

1 annual.

2           You don't particularly go from quarterly  
3 final to impact and go straight down to annual  
4 monitoring. Typically, you're going to go, you know,  
5 five year increments. You're doing quarterly  
6 monitoring, and as you've done remediation or as those  
7 contaminants are, you know, decreased over time for  
8 whatever reason, then you can go to a lower level of  
9 frequency.

10           MR. SYLVESTER: That's all. Thank you.

11           HEARING OFFICER TIPSORD: Anything else?  
12 Thank you very much.

13           Mr. Hamper, we'll go to you. And do you  
14 have a clean copy of your testimony?

15           Okay. If there is no objection, we will  
16 admit Mr. Hamper's testimony as Exhibit Number 56.  
17 Seeing none, it's Exhibit 56.

18                           (Exhibit Number 56 was marked for  
19 identification and admitted into  
20 evidence.)

21                           (Witness sworn.)

22

23

24

1           MARTIN HAMPER, called as a witness herein,  
2           having been first duly sworn, testified as follows:

3  
4           MR. HAMPER: All right. Thank you for the  
5           opportunity to speak here today. My name is Martin  
6           Hamper. I'm a board member for the American Institute  
7           of Professional Geologists, the Illinois/Indiana  
8           section, and I'm here to request that the professional  
9           geologists be added as another licensed professional  
10          under Section 1100.710 regarding supervision and  
11          certification of groundwater monitoring programs.

12           Professional geologists have the training,  
13          education, experience, and Illinois licensure to  
14          supervise and certify groundwater monitoring programs  
15          under Section 1100.710.

16           Thank you.

17           HEARING OFFICER TIPSORD: Are there any  
18          questions of Mr. Hamper?

19           Thank you very much for your renewing your  
20          comments. Thank you.

21           MR. HAMPER: Thank you.

22           HEARING OFFICER TIPSORD: With that, then,  
23          we move on to Mr. Lansu, Brian Lansu, L-A-N-S-U.

24           (Witness sworn.)

1 BRIAN LANSU and GREGORY WILCOX, called as  
2 witnesses herein, having been first duly sworn,  
3 testified as follows:

4

5 HEARING OFFICER TIPSORD: If there's no  
6 objection, we will enter Mr. Lansu's testimony on  
7 behalf of the Land Reclamation & Recycling Association  
8 as Exhibit Number 57. Seeing none, this is Exhibit  
9 57.

10 (Exhibit Number 57 was marked for  
11 identification and admitted into  
12 evidence.)

13 Would you like to offer a short summary?

14 MR. WILCOX: Yes. My name is Greg Wilcox.  
15 I was asked to give a more detailed breakdown of the  
16 costs of monitoring, and I think some of the key  
17 points I'd like to point out in this, and throughout  
18 most of the testimony I've seen, that a lot of people  
19 have been focusing on the cost of implementing the  
20 wells, putting the wells in the ground. I did try and  
21 break those costs down. I did get costs from the  
22 Bluff City Materials Corporation that actually did  
23 some work at one of their CCDD sites. The cost I'm  
24 giving you is over ten years old, so please keep that

1 in mind, that this work has begun ten years ago, so  
2 these costs are going to be slightly lower than what  
3 they are today.

4 But one of the things that I wanted to point  
5 out, and I think in the Huff testimony that comes up,  
6 that in doing groundwater monitoring, it is not a  
7 two-dimensional system, but they were actually  
8 required to put in eight different wells of different  
9 heights to try and get a feel for the  
10 three-dimensional flow of the groundwater and try and  
11 model it, and I think as Will County pointed out, and  
12 as what's shown in these costs, there's significant  
13 effort, almost triple the amount of costs of  
14 installing the wells in just doing the groundwater  
15 monitoring, trying to monitor the levels on a  
16 continuous basis to find out what is upgradient, what  
17 is downgradient, how does the groundwater flow through  
18 this, and it took several years to determine this  
19 using groundwater monitoring.

20 So when we talk about groundwater  
21 monitoring, I think it's important that the cost not  
22 be just talked about wells and installing wells, but  
23 the actual modeling effort to develop how this  
24 groundwater flows and where is it coming from, and as

1 Will County's pointed out, that can change from year  
2 to year or season to season, so it's a lot of  
3 continuous monitoring by professionals to try and  
4 figure these directions and models out.

5           So that's the first part. The second  
6 comment we made is, looking at one of the members of  
7 our association, the Reliable Lyons Quarry, which has  
8 an inward gradient that they maintain year round, and  
9 they've been testing the water coming from this inward  
10 gradient to see if they could detect anything.

11           Reliable Lyons is one of the largest, if not  
12 the largest, CCDD site in the State of Illinois. It  
13 is in a very urbanized area. It takes soil primarily  
14 from the Chicagoland area, very developed area, and we  
15 thought this would be a good one to monitor to see if  
16 there's any potential impacts.

17           One of the questions that's always come up  
18 is that in an inward gradient, the water we're  
19 sampling, is often diluted from incoming groundwater.

20           Since my last testimony we provided,  
21 Reliable Lyons has been monitoring the amount of water  
22 pumped and has been recording the amount of rainfall  
23 and snow melt entering the quarry, so they're able to  
24 give an indication of dilution, and it is significant.



1 It's about 2.3 to 1 dilution. So they are able to  
2 quantify that dilution, that there is dilution, but we  
3 did also present the data and, again, I found no  
4 detects of any material other than barium, which is  
5 probably coming from the groundwater flow coming in  
6 because it's naturally occurring. So that's our  
7 testimony.

8 HEARING OFFICER TIPSORD: I have a couple of  
9 questions that I would like to ask.

10 Just to be clear, Reliable Lyons, is that in  
11 Lyons, Illinois?

12 MR. WILCOX: That is in Lyons, Illinois,  
13 yes.

14 HEARING OFFICER TIPSORD: I just wanted to  
15 get that on the record.

16 And does it have an NPDES permit?

17 MR. WILCOX: Yes, it does.

18 HEARING OFFICER TIPSORD: Are there any  
19 other questions for Mr. Wilcox? Mr. Clay?

20 MR. CLAY: Mr. Lansu's testimony, and I'll  
21 direct this to you --

22 HEARING OFFICER TIPSORD: Doug, can you  
23 identify yourself?

24 MR. CLAY: Doug Clay with the Illinois EPA.

1 I'll direct this to either Mr. Lansu or  
2 Mr. Wilcox. What was the reason that you did not  
3 sample for volatiles in the Reliable Lyons sampling  
4 data provided? You said that you sampled for RCRA  
5 metals and semi-volatiles.

6 MR. WILCOX: Yeah, RCRA metals and SVOCs is  
7 what they sampled for.

8 MR. CLAY: Right. Was there a reason you  
9 didn't sample for volatiles?

10 MR. WILCOX: Just costs of sampling. The  
11 potential of contaminants, they felt that the highest  
12 would be the metals in the groundwater and the SVOCs.  
13 Generally, the monitoring of each and every load with  
14 a PID meter and the installation of this material  
15 being spread out over a large area, the odds of having  
16 any volatiles of any significance is highly unlikely,  
17 much more highly that we would have some PNAs or SVOCs  
18 or RCRA metals. That's what they were looking at.

19 MR. CLAY: Thank you.

20 HEARING OFFICER TIPSORD: Thank you very  
21 much. Oh, I'm sorry. Mr. Rao has a couple of  
22 questions.

23 MR. RAO: Mr. Wilcox, you just now  
24 emphasized the cost of groundwater modeling involved

1 in the location of these wells and direction of flow,  
2 and looking at the numbers that you've presented in  
3 your testimony, you indicated the modeling costs were  
4 somewhere in the range of \$364,000.

5           Would you consider that kind of a cost as  
6 typical for a CCDD site, or is this site that -- is  
7 this Bluff Springs facility, is that, would you  
8 consider it as a unique situation?

9           MR. WILCOX: As I stated in my previous  
10 testimony, I did talk with the engineers involved with  
11 this and asked them, was this modeling a little more  
12 significant because of the Bluff City spring and the  
13 detail that they needed to get, and they did say that,  
14 yes, this was much, much higher.

15           But they did an estimate, and I did provide  
16 that in my previous testimony, that a typical modeling  
17 cost could be easily 360,000, based on their  
18 experience at this. So it would be less, but not  
19 significantly less.

20           MR. RAO: And what kind of modeling are we  
21 talking about here? Is this some kind of a  
22 groundwater assessment modeling to show that the  
23 facility would not have any impact, or is it just to  
24 figure out the direction of groundwater flow at the

1 facility?

2 MR. WILCOX: Actually, this modeling was a  
3 combination of not only finding out the direction, but  
4 also trying to quantify the flow rates and the volumes  
5 moving through the soil.

6 MR. RAO: And also estimating facts of the  
7 facility?

8 MR. WILCOX: No.

9 MR. RAO: No?

10 MR. WILCOX: No. The numbers here really  
11 involve very little testing of water quality. It was  
12 all modeling. And, again, they were looking at more  
13 of the volume of flows and what aquifer that these  
14 flows were coming from towards the fen.

15 MR. RAO: Thank you.

16 MR. CRAVENS: I have a question.

17 So was the modeling they did, was that like  
18 a USGS mod-flow type modeling?

19 MR. WILCOX: I didn't actually do the  
20 modeling, so I don't know if I'd be really qualified  
21 to give you the exact details of that.

22 MR. CRAVENS: Are you aware of some  
23 modeling, if there's some very simple models that you  
24 can do in an hour that just, you know, might take a

1 person half a day to run, and then some models it can  
2 take weeks or months to get data for and to run that  
3 could run up into a hundred thousand dollars versus  
4 ten thousand dollars.

5 MR. WILCOX: Well, I'm sure there's people  
6 who do very cheap models and some who do very  
7 expensive.

8 But if you're going to try and determine  
9 what is truly upgradient and downgradient, especially  
10 in the sand and gravel aquifer that this is, what they  
11 told me that this takes significant modeling effort on  
12 a year round basis to determine how these flows change  
13 seasonally and with time and rain events.

14 MR. CRAVENS: At this specific location,  
15 though.

16 MR. WILCOX: At this specific location.

17 MR. CRAVENS: Which is a fen, correct?

18 MR. WILCOX: It's a sand and gravel quarry,  
19 yeah.

20 MR. CRAVENS: Right.

21 MR. WILCOX: And, again, I'm not trying to  
22 say that this would be the same at a limestone quarry  
23 or anything else. We were just trying to present data  
24 of an actual quarry what they actually did.

1 MR. CRAVENS: Okay.

2 HEARING OFFICER TIPSORD: Mr. Wilcox, just  
3 to clarify, you referred to your previous testimony.  
4 You were talking about previous testimony in the root  
5 docket R12-9?

6 MR. WILCOX: I was.

7 HEARING OFFICER TIPSORD: Anything else?  
8 Okay. I think this time we're really done. That  
9 takes us to Mr. Huff.

10 MR. HUFF: I have a copy this time.

11 HEARING OFFICER TIPSORD: If there's no  
12 objection, we will enter Mr. Huff's prefiled testimony  
13 as Exhibit 58. Seeing none, it's Exhibit 58.

14 (Exhibit Number 58 was marked for  
15 identification and admitted into  
16 evidence.)

17 Mr. Huff, if you'd like to give a brief  
18 summary.

19 (Witness sworn.)

20  
21 JAMES HUFF, called as a witness herein,  
22 having been first duly sworn, testified as follows:  
23

24 MR. HUFF: Sure. My name is James Huff.

1 I'm with the consulting firm Huff & Huff,  
2 Incorporated.

3 I went through and attempted to answer a  
4 number of the questions that the Board had asked in  
5 its prefiled questions. I also included as Attachment  
6 1, the Illinois Integrated Water Quality Report and  
7 Section 303(b) lists 2012 volume groundwater, which  
8 basically goes to the question of what the Agency  
9 routinely monitors for in the groundwater across the  
10 State of Illinois, and that report focuses on volatile  
11 organic chlorides -- I'm sorry -- volatile organic  
12 compounds, chlorides, nitrates and herbicides, with  
13 the nitrates and herbicides associated with the  
14 agricultural areas, and chlorides are associated with  
15 highway deicing practices, the use of potassium  
16 chloride fertilizers, livestock waste, and water  
17 softening.

18 So, really, the primary focus with respect  
19 to CCDD in that report would be the volatile organic  
20 compounds that were there.

21 I also attempted to put in a little  
22 additional information on why dissolved metals are  
23 really a more appropriate metal than the total metals;  
24 primarily, so that you don't get false positives, and,

1 you know, there's been a lot of discussion on cost.  
2 Once a positive hit is made, then there's going to be  
3 an additional round of testing and maybe multiple  
4 rounds to try address those false positives, which you  
5 can eliminate by just testing for dissolved metals as  
6 opposed to the total metals there.

7           The Board asked about the front end  
8 screening, and I had testified in R12-009.  
9 Previously, I had recommended that the semi-deflection  
10 on a photoionization detector is really problematic  
11 because of the false positives, humidity being the  
12 largest one and, sure enough, the first day of  
13 construction season at a job site we were doing in a  
14 strictly residential area, we got a call that there  
15 was deflection on the PID. It was a cold, wet rainy  
16 day. The soil was wet that went in there from the  
17 rain, and that then just snowballed to where we went  
18 from a Form 662 to a requirement for a Form 663; and,  
19 of course, there was nothing detected in that sample,  
20 and that's just, I think, a typical example where if  
21 we're going to do monitoring with monitoring wells  
22 here, some relaxation from the semi-deflection on the  
23 photoionization detector would be appropriate.

24           Remediation options. I also put in a second



1 attachment on Superfund sites on typical costs for  
2 pump-and-treat, and I think that's pretty analogous to  
3 exactly what would happen here, and that cost was 2.9  
4 million dollars for installation in 2013 costs in  
5 there.

6 And then I also lifted up, iron and  
7 manganese are two parameters. We've got this  
8 exception listed on parameters that we perhaps  
9 shouldn't be monitoring, and those two are at the  
10 absolute top of the list. The MAC table as currently  
11 written has set the limit at the median concentration  
12 in the State of Illinois.

13 So, effectively, you've got a 50/50 chance  
14 if you test for iron, it's going to pass, and a 50/50  
15 chance with manganese that it's going to pass.

16 And then there's a number of other metals;  
17 chloride, sulfate, and total dissolved solids;  
18 fluorides, nitrates and perchlorate that I really  
19 don't think are appropriate when you're talking about  
20 clean construction demolition debris. If there's  
21 going to be contamination in the urban areas, it's  
22 going to be going by the gas station, the dry cleaner  
23 facility there, and the volatile organic compounds  
24 would really address that.

1           And the final comment was just, the Board in  
2           the final regulations included a maximum pH of 9.0,  
3           and to the extent we're putting this uncontaminated  
4           soil in with concrete, the pH is well above 9 in the  
5           material going into these CCDD facilities, and a lot  
6           of the quarries themselves that are developing will  
7           also have a pH of 9.

8           That's really caused a problem because we  
9           have limestone base force under these roadways, and if  
10          we take shallow samples, if we're not very careful, we  
11          get a little limestone dust in the samples, and we're  
12          getting pH routinely above 9. It really is a false  
13          positive. It's the stone and not the soil, and I  
14          don't believe there's any technical support for that  
15          upper pH one, and so I would ask the Board to  
16          reconsider that.

17          And then I think on the MAC table that was  
18          there, that was left to the Agency, but we clearly  
19          have problems with iron and manganese.

20          The total chromium they've set at basically  
21          what was in TACO is a hexavalent chromium, and between  
22          those three and the arsenic, which was discussed  
23          extensively, if you test for those four parameters and  
24          assuming they're randomly distributed, only 14 percent

1 of all the clean soil in Illinois will pass those four  
2 parameters.

3 So I'd really like to have some dialog about  
4 whether we shouldn't move MAC into the Board  
5 regulations and have more discussion on those, would  
6 be my thought.

7 And that concludes my summary.

8 HEARING OFFICER TIPSORD: Thank you,  
9 Mr. Huff. Are there any questions for Mr. Huff?  
10 Mr. Wight?

11 MR. WIGHT: Mark Wight, Illinois EPA.

12 Mr. Huff, I was just wondering, earlier in  
13 the proceeding when you would testify, you were  
14 representing a fairly sizable coalition of county and  
15 municipal departments and so on. Are you still  
16 representing those, or who are you representing today?

17 MR. HUFF: I'm basically here on my own  
18 time, sir.

19 MR. WIGHT: Okay. Thank you.

20 HEARING OFFICER TIPSORD: Any other  
21 questions for Mr. Huff?

22 MS. LIU: Good morning, Mr. Huff.

23 MR. HUFF: Good morning.

24 MS. LIU: On page 3 of your prefiled

1 testimony, you state that, quote, I do not believe  
2 four monitoring wells will be sufficient to meet the  
3 regulations as currently drafted and a minimum of  
4 eight monitoring wells will be required, end quote.

5 The proposed regulations refer to both  
6 requirements for determining the quality of  
7 groundwater downgradient in horizontal and vertical  
8 directions.

9 On page 6, you indicate that it's the  
10 vertical component that would be more difficult to  
11 assess and would require an extensive hydro geologic  
12 study.

13 The first question: If the horizontal  
14 component is determined using a monitoring well that's  
15 screened to capture groundwater from a wide range of  
16 depths, do you think it's necessary to determine the  
17 precise vertical component for the purposes of  
18 monitoring and demonstrating compliance?

19 MR. HUFF: That's really a good question.

20 I was responding to the regulation as  
21 drafted includes this vertical component in there, and  
22 so I think that's really a great question for the  
23 Agency, what exactly does that mean? But, to me, that  
24 means I have to have wells screened in at least two

1 different intervals to determine the vertical  
2 component, as opposed to screening perhaps the first  
3 groundwater that's encountered or groundwater that's  
4 at the base of the CCDD at the same elevation.

5 So your question is, really, could I just  
6 put in -- we heard testimony earlier of 120 foot well  
7 as an example, could you screen that over 100 feet and  
8 take a sample of that, and would that satisfy the  
9 requirement for vertical characterization, and I would  
10 defer to the Agency on that question.

11 MS. LIU: My second question would be, do  
12 you think the vertical component would only be  
13 necessary if remediation were to be contemplated?

14 MR. HUFF: Well, I think the intent of the  
15 vertical was to make sure that if there is  
16 contamination, that that is being detected.

17 So if the question on vertical is only from  
18 a remediation point of view, that clearly would reduce  
19 the front end cost here for monitoring. And, again, I  
20 would defer to the Agency because they're going to be  
21 the ones that are imposing their interpretation of  
22 what that means.

23 MS. LIU: Earlier, IEPA had presented some  
24 ranges of cost estimates for establishing a

1 groundwater monitoring network. In your professional  
2 opinion, would you be able to comment on IEPA's cost  
3 estimates?

4 MR. HUFF: Really, I did not look at that.  
5 I think as we heard Mr. Wilcox, there's a lot of  
6 additional decisions that have to go into that, and we  
7 heard where they had to go out and retain a hydro  
8 geologist firm to develop what is a complex  
9 groundwater model, and so I think those kind of costs  
10 clearly were not factored into what the Illinois EPA's  
11 cost estimates were.

12 MS. LIU: On page 8 of your testimony, you  
13 recommend that the Board eliminate the restriction on  
14 uncontaminated soil with pH values above 9.0 to  
15 address concerns with the aggregate limestone used  
16 beneath roadways and buildings.

17 You note that the, quote, aggregate  
18 limestone used beneath both roadways and buildings can  
19 have a pH as high as 12.45, end quote.

20 Instead of the prohibition that CCDD fill  
21 operations must not accept uncontaminated soil with pH  
22 outside the range 6.25 and 9.0, should the range of  
23 the pH be limited to 6.25 and 12.5?

24 MR. HUFF: Oh, I think that would be fine.

1 Absolutely. 12.5 is the threshold for a  
2 characteristic hazardous waste due to corrosivity, so  
3 12.5 would be absolutely appropriate.

4 MS. LIU: Section 742, Appendix B, Table C,  
5 which is Specific Soil Remediation Objectives for  
6 Inorganics and Ionizing Organics for the Soil  
7 Component of the Groundwater Ingestion Route, Class I,  
8 does not provide data for pH ranges greater than 9.0.

9 If the pH range of uncontaminated soil was  
10 limited to between 6.25 and 12.5, should the Maximum  
11 Allowable Concentrations, or MACs, in uncontaminated  
12 soil still be determined based on the lowest pH  
13 dependent value in 742, Appendix B, Table C, between  
14 the column ranges 6.25 and 9.0?

15 MR. HUFF: Another very good question that  
16 I'm sure Dr. Hornshaw will -- would be appropriate to  
17 answer.

18 But with the exception of two of the metals,  
19 chromium being one of those, they tend to be more  
20 mobile at low pH, so the 6.25 is used for all but two  
21 of the metals, which are the chrome and one other  
22 metal, and with the chrome, it's a function of whether  
23 it's a hexavalent or trivalent as well. So there may  
24 need to be some adjustment on those, but it goes back

1 to if we've used a hexavalent chrome limit, when the  
2 naturally occurring chrome is predominantly in the  
3 trivalent, that's clearly created a problem where  
4 we're seeing a lot of failures for chromium, and  
5 you're using that pH 9 value there.

6 MR. RAO: Mr. Huff, the Board in its second  
7 notice opinion in Docket R12-9 stated that, quote, the  
8 Board believes that Section 1100.205(a)(4), as  
9 proposed, allows for treatment of soil with limestone  
10 to increase pH, so that soil initially rejected solely  
11 on the basis of pH could subsequently be accepted by a  
12 fill operation, unquote.

13 Please comment on the types of amendments  
14 that could be used to decrease pH in cases where soils  
15 have pH greater than 12.5.

16 MR. HUFF: 12.5?

17 MR. RAO: You can also comment on 9, also,  
18 if you want, yeah.

19 MR. HUFF: Well, 12.5, you're starting to  
20 get into, are you now becoming a treater of a  
21 hazardous waste. So I think the more appropriate  
22 question would be, where you have pH greater than 9,  
23 are there treatment methods to reduce that. And,  
24 sure, if your soil mixes out in the field because the



1 highest pH tends to be near the surface, that would  
2 bring it down, and then you could always add things  
3 like alum that would bring that soil pH down as well.

4 MR. RAO: What would be the cost of treating  
5 soils with pH around 9 to bring it down below 9?

6 MR. HUFF: Well, I think it's a better  
7 question whether -- like, on a typical highway job  
8 when there -- if you tell the contractor he's got to  
9 stop and they now find an area of the soil mix, it's  
10 going to go to a landfill. I mean, that's the truth.  
11 You're going to pay the landfill price.

12 He's not going to slow down. He doesn't  
13 have the area to mix that soil adequately, and then  
14 he's going to have to have somebody standing out there  
15 with potentially a lack-of-proof laboratory that's  
16 going to run soil pH on those.

17 MR. RAO: All right. I think that's about  
18 it. Thanks.

19 HEARING OFFICER TIPSORD: Does anyone have  
20 any questions?

21 Thank you again, Mr. Huff. It's good to see  
22 you. Let's move on to the People.

23 (Witness sworn.)

24 Mr. Sylvester, if there's no objection, we

1 will mark the prefiled testimony of Stephen Sylvester  
2 on behalf of the Attorney General's Office as Exhibit  
3 Number 59. Seeing no objection, it's Exhibit Number  
4 59.

5 (Exhibit Number 59 was marked for  
6 identification and admitted into  
7 evidence.)

8 Do you want to give a short summary?

9 MR. SYLVESTER: Sure.

10

11 STEPHEN SYLVESTER, called as a witness  
12 herein, having been first duly sworn, testified as  
13 follows:

14 MR. SYLVESTER: The Attorney General's  
15 Office has been involved in this rulemaking since it  
16 was with the Illinois EPA and was part of the  
17 stakeholder process, and throughout this process, our  
18 office has been very adamant for the need for  
19 groundwater monitoring. Nothing's changed since July,  
20 or even in 2011 to the present. Throughout our  
21 testimony and public comments our office has advocated  
22 that groundwater monitoring should be a necessary  
23 component to CCDD operations.

24 For this particular set of questions, we

1 answered a few of the questions, and just as a  
2 synopsis, like Will County, we would prefer a  
3 quarterly groundwater monitoring at the site, at least  
4 in the initial phase.

5 Let's get down here a little further.

6 Also, regarding the timeframes for the  
7 planning, our office would prefer to see those  
8 tightened somewhat just generally.

9 As far as the alternate compliance program,  
10 I think that that could be kind of combined with the  
11 other compliance program to make it that the  
12 information would be submitted along with the  
13 compliance plan. You could have the choice of doing  
14 either one.

15 Regarding whether or not anything should be  
16 changed from the rulemaking that went final last  
17 August, our position is obviously that the soil  
18 certifications are a great step in the right  
19 direction.

20 If you look back at the history of CCD  
21 filling, in 1997 to 2005, there were no requirements  
22 for PID screening, no reporting requirements  
23 whatsoever, and then in 2005, you had the limited PID  
24 screening, which you heard testimony from both the EPA

1 and engineers about certain shortcomings involved with  
2 PID, both false positives and false negatives. So it  
3 wasn't until 2010 that there was a certification  
4 requirement for soils that were brought there, which  
5 gave a much more accurate depiction of what was  
6 actually in the CCD quarries. Of course, that's  
7 couched on, you know, people actually providing  
8 accurate certifications, which is probably more than  
9 90 percent the case, but even in the time between the  
10 amendment in 2010, our office has a case for  
11 enforcement where soil certifications weren't provided  
12 at two CCD facilities.

13 Also, regarding the data that has been  
14 provided for CCD facilities, I think the Illinois EPA  
15 also provided data from the same site. It was an  
16 enforcement action in Lynwood. They call it the  
17 Einoder site; we call it the Lynwood site, but it's  
18 the same facility.

19 During the initial process, Mr. Purseglove  
20 had testified that it was a site that had allegedly  
21 taken some improper materials. Well, the case was  
22 tried before a judge in circuit court, and the  
23 findings of it was that the material at the site was  
24 all CCDD. The reason why it was a, quote, improperly

1 run facility, was that they didn't stop filling the  
2 former quarry. They kind of did the Matterhorn and  
3 went up a hundred feet, and that's why it was an  
4 illegal facility. So in terms of any kind of findings  
5 by the Court, that was the basis for it being an  
6 improperly run facility.

7 As you can see, both our office and the  
8 Illinois EPA attached the data for the first quarter  
9 of groundwater sampling. Obviously, there are more  
10 quarters. The Court ordered that there be four  
11 consecutive samples of below standards. So,  
12 obviously, there are some issues with the first  
13 quarter, and the sampling should be being conducted in  
14 the near future, which we would certainly supplement  
15 the record once we get that data as well.

16 The other thing that's somewhat concerning  
17 is the self-implementing nature of the program at this  
18 point in the proposed Subpart G. For the most part,  
19 once again, there's professionals involved, and you  
20 get a very excellent product in terms of groundwater  
21 plans and what not, but being in the enforcement area,  
22 the environmental cases, all of our settlements and  
23 court orders, when there's investigation to be done  
24 always provides for if plans and submittals are

1 rejected by the Illinois EPA, and in my experience,  
2 that has happened, whether it's comment letters. Even  
3 in something like the site remediation program, it's a  
4 voluntary program, that provides the same type of  
5 oversight and the ability for the Illinois EPA to  
6 comment on those submissions. So our position is that  
7 the plans should be subject to the review of the  
8 Illinois EPA.

9           Also, kind of along that line, the  
10 groundwater monitoring data, you know, because of  
11 areas like Will County where there's a lot of --  
12 you've heard testimony about how many people are  
13 relying on the groundwater for their drinking water,  
14 one of the kind of important parts of the community's  
15 right to know what's in their water is the ability to  
16 obtain data in Illinois and other government contacts  
17 within the federal level that's gone through the  
18 Freedom of Information Act, and it would be -- I think  
19 it would be of public benefit that that information be  
20 somewhere where the citizens could have access to it  
21 and review it.

22           That's all I have.

23           HEARING OFFICER TIPSORD: Are there any  
24 questions?

1 Mr. Huff, we'll start with you.

2 MR. HUFF: You've presented data on eight  
3 monitoring wells at the Lynwood site?

4 MR. SYLVESTER: Correct.

5 MR. HUFF: That was out of how many wells at  
6 the Lynwood site?

7 MR. SYLVESTER: Give me a second.

8 MR. HUFF: Or nine wells. I'm sorry, there  
9 were nine wells and you presented the data on nine.  
10 Was there nine total?

11 MR. SYLVESTER: I don't have my material  
12 handy. I apologize. Whatever the information was  
13 submitted there between the Illinois EPA and -- I  
14 don't know if there was exceedances in every well, if  
15 that's what you're asking.

16 MR. HUFF: There were exceedances in every  
17 well, iron and manganese, so which one of these is the  
18 upgradient well? Which is your background well?

19 MR. SYLVESTER: Just to be fair, I would  
20 defer to the Illinois EPA for the technical matters.  
21 Being an attorney, I typically would put the Illinois  
22 EPA in a chair and allow them to testify, or yourself.

23 MR. HUFF: But you felt obligated you could  
24 put this in the record as saying here's your data, but

1 you really don't have any understanding of the data.

2 MR. SYLVESTER: I didn't say that we didn't  
3 have the data. The data, there's -- Illinois EPA has  
4 obtained the data and I've identified exceedances.

5 MR. HUFF: So you're deferring to the  
6 Illinois EPA.

7 MR. SYLVESTER: For the most part. That's  
8 the substance of my technical expertise --

9 MR. HUFF: Thank you.

10 MR. SYLVESTER: -- that there were  
11 exceedances identified.

12 HEARING OFFICER TIPSORD: Mr. Henriksen?

13 MR. HENRIKSEN: Thank you.

14 Looking at your submitted testimony, on page  
15 2, you state that CCDD includes asphalt a source of  
16 PNAs.

17 MR. SYLVESTER: Bear with me here. I'm  
18 trying to get to the page.

19 MR. HENRIKSEN: Second line, top of page 2.

20 MR. SYLVESTER: Okay.

21 MR. HENRIKSEN: Are you there?

22 MR. SYLVESTER: I am.

23 MR. HENRIKSEN: Perfect. By asphalt, do you  
24 mean asphalt pavement, or liquid asphalt?



1           MR. SYLVESTER: Well, obviously, we're  
2 talking about the asphalt pavement in the context. To  
3 the extent that any liquid asphalt got in there, the  
4 answer would be the same. Although it's not permitted  
5 to be there, it doesn't mean it wouldn't end up in a  
6 CCD quarry.

7           MR. HENRIKSEN: So it's your testimony that  
8 the -- that asphalt pavements are a source of what you  
9 refer to as PNAs.

10          MR. SYLVESTER: Correct.

11          MR. HENRIKSEN: And PNA refers to  
12 polynuclear aromatics?

13          MR. SYLVESTER: Yes.

14          MR. HENRIKSEN: And that's equivalent to  
15 polycyclic aromatic hydrocarbons, or PAHs? That's the  
16 same --

17          MR. SYLVESTER: That's what I've learned.  
18 Just to further clarify that, though, I would also say  
19 that the soils that were around the road material may  
20 also be a source of PNAs from the road work itself.

21          HEARING OFFICER TIPSORD: You need to speak  
22 up, Mr. Sylvester. We're losing your --

23          MR. SYLVESTER: Certainly.

24          HEARING OFFICER TIPSORD: Thank you.

1 MR. HENRIKSEN: All right. Just so I  
2 understand what you're saying, when you say CCDD  
3 includes asphalt, a source of PNAs, you're referring  
4 to asphalt pavement?

5 MR. SYLVESTER: Correct. Yes, I'm sorry.  
6 That wasn't spelled out in the testimony.

7 MR. HENRIKSEN: On page 7, are you there?

8 MR. SYLVESTER: Almost. Go ahead.

9 MR. HENRIKSEN: Thank you. At the bottom of  
10 page 7, Finally, CCDD is not actually clean, as CCDD  
11 by its very definition may lawfully contain  
12 carcinogenic compounds in the form of PNAs, PNAs,  
13 i.e., reclaimed or other asphalt, without reference to  
14 any regulatory levels.

15 Is it your testimony that the PNAs in the  
16 asphalt pavements that may be disposed of at these  
17 facilities create a threat of groundwater  
18 contamination?

19 MR. SYLVESTER: Yes.

20 MR. HENRIKSEN: Does the Office of the  
21 Attorney General have test results indicating that  
22 reclaimed or other asphalt pavement leaches PNAs into  
23 groundwater?

24 MR. SYLVESTER: I don't have any technical

1 data on that.

2 MR. HENRIKSEN: Thank you. Going back to  
3 page 4 of your Response, at the top, you refer to a  
4 total of 13 cases. It appears that 11 of the cases  
5 were the cases that were outlined in your March 5th  
6 document.

7 MR. SYLVESTER: Correct.

8 MR. HENRIKSEN: And then two cases were also  
9 mentioned that are pending cases filed -- filed this  
10 year; correct?

11 MR. SYLVESTER: Correct.

12 MR. HENRIKSEN: So you refer to a total of  
13 13 enforcement actions against permitted or  
14 unpermitted CCDD sites after the Part 41 regulations  
15 went into effect; correct?

16 MR. SYLVESTER: Part which regulations?

17 MR. HENRIKSEN: Part 1100 regulations.

18 MR. SYLVESTER: Correct.

19 MR. HENRIKSEN: Okay. However, none of  
20 these cases alleged that materials deposited at these  
21 sites resulted in groundwater contamination; correct?

22 MR. SYLVESTER: Correct.

23 MR. HENRIKSEN: Going to page 8 of your  
24 document you filed.

1 MR. SYLVESTER: If I may just follow up on  
2 that, I believe one of the cases may have -- no,  
3 strike that. Never mind.

4 MR. HENRIKSEN: Thank you.

5 On page 8 of your filing, referring to the  
6 Lynwood case, or the J. T. Einoder case, because  
7 they're the same case, you refer to the Lynwood,  
8 Illinois case operated by J. T. Einoder in Cook  
9 County; correct?

10 MR. SYLVESTER: Yes.

11 MR. HENRIKSEN: This site accepted materials  
12 from 1997 to 2003; correct?

13 MR. SYLVESTER: Correct.

14 MR. HENRIKSEN: And this was prior to the  
15 Part 1100 rules being in effect; correct?

16 MR. SYLVESTER: Yes.

17 MR. HENRIKSEN: And this is not one of the  
18 13 cases that you've cited.

19 MR. SYLVESTER: No.

20 MR. HENRIKSEN: And according to the EPA's  
21 prefiled testimony, this site received materials in  
22 addition to CCDD; correct?

23 MR. SYLVESTER: That's the Illinois EPA's  
24 testimony, yes. I mentioned in my testimony, that's

1 not what the Court found.

2 MR. HENRIKSEN: Correct. But the EPA stated  
3 and testified that they found -- they saw evidence of  
4 non-CCDD materials being deposited there; correct?

5 MR. SYLVESTER: That was their testimony.  
6 They testified in that case and the Judge said that it  
7 was only CCD at the site.

8 MR. HENRIKSEN: The last three pages of your  
9 Response outlines a series of exceedances in Class I  
10 standards from the Lynwood site; correct?

11 MR. SYLVESTER: Yes.

12 MR. HENRIKSEN: And this, again, is a site  
13 that accepted materials from 1997 until 2003 prior to  
14 the part 1100 rules; correct?

15 MR. SYLVESTER: Correct.

16 MR. HENRIKSEN: Then at the bottom of page  
17 10, you compare two CCD facilities operating after the  
18 Part 1100 rules were in effect that had no evidence of  
19 groundwater contamination, but then you said that this  
20 is a CCD facility that shows an exceedance, and then  
21 you said, based on the foregoing data from the three  
22 CCD facilities, the data shows that one-third of the  
23 CCD facilities show groundwater contamination;  
24 correct?

1 MR. SYLVESTER: Based on the three that have  
2 groundwater monitoring data, that's correct.

3 MR. HENRIKSEN: But only two of these three  
4 sites, you know, were operating after the Part 1100  
5 regulations were in effect; correct?

6 MR. SYLVESTER: Correct.

7 MR. HENRIKSEN: And these are the two sites  
8 that didn't have groundwater contamination; correct?

9 MR. SYLVESTER: Correct.

10 MR. HENRIKSEN: And they had screening  
11 that's required by law; correct?

12 MR. SYLVESTER: With PID, potentially.

13 MR. HENRIKSEN: And also, depending on when  
14 the cases were, also LPC 662 and 663, those  
15 certifications; correct?

16 MR. SYLVESTER: I couldn't tell you that,  
17 whether that's true or not at this point. The  
18 testimony of the one facility was from Mr. Hock, and  
19 that was -- there wasn't a whole lot of information  
20 provided there.

21 With the facility, the Reliable facility,  
22 obviously the information could be from when they  
23 started operating around 2005/2006 through the  
24 present.

1 MR. HENRIKSEN: So if you exclude the  
2 Lynwood site, a site that hasn't taken material for  
3 ten years and a site that operated prior to the Part  
4 1100 rules going into effect, the only groundwater  
5 monitoring data in the record shows absolutely no  
6 contamination; correct?

7 MR. SYLVESTER: I don't think you can take  
8 that data away, but I would agree with your statement.  
9 You know, the CCD facility, if it accepted CCD, just  
10 like these other facilities, and there were  
11 groundwater impacts.

12 MR. HENRIKSEN: Even though they last  
13 accepted CCDD prior to the Part 1100 rules came into  
14 effect.

15 MR. SYLVESTER: I don't think that makes any  
16 difference. They took CCDD. In fact, it's almost  
17 worse. You have here ten years later they're still  
18 impacting groundwater.

19 MR. HENRIKSEN: No further questions.

20 HEARING OFFICER TIPSORD: Any other  
21 questions?

22 Mr. Sylvester, I do have a question, and it  
23 goes to some arguments that the People made in the  
24 root docket here in R12-9 about federal law and the

1 definition of Clean Construction or Demolition Debris.

2 In Section 3.160 of the Act, the  
3 Environmental Protection Act, states that these items  
4 that we're dealing with that are regulated by Part  
5 1100 are not waste, unless federal law says they are,  
6 and the Board found that in this case things regulated  
7 under 1100 are not waste because of the legislation.

8 Given the Attorney General's comments here  
9 again, which continue to talk to and ask that we  
10 almost treat that as inert waste, and given some of  
11 the press that we see from the Attorney General's  
12 Office, my question is, has the Attorney General's  
13 Office considered a legislative change?

14 MR. SYLVESTER: I couldn't speak to that.  
15 I'm only an environmental enforcement attorney. But I  
16 can tell you that inert waste is also considered CCDD,  
17 as you've probably imagined, that you've seen our  
18 testimony. It includes bricks, masonry, and concrete.  
19 It doesn't include asphalt, which makes it, in our  
20 position, more benign than CCDD.

21 And to answer your question, I don't have  
22 information on that.

23 HEARING OFFICER TIPSORD: Okay.

24 MR. SYLVESTER: Could I ask one



1 clarification, just to make sure? Did the Board say  
2 that federal law is consistent? Is that what you --

3 HEARING OFFICER TIPSORD: I'd have to go  
4 back and read the Opinion and Order again. We did  
5 address your argument. I don't have that Opinion and  
6 Order in front of me so -- but I know we did address  
7 that argument.

8 MR. SYLVESTER: I'm with you. The way you  
9 phrased it was different than my recollection.

10 HEARING OFFICER TIPSORD: Are there any  
11 other questions?

12 MR. TRAYLOR: I have a question. My name's  
13 Marvin Traylor with the Illinois Asphalt Pavement  
14 Association. Can I ask a question now?

15 HEARING OFFICER TIPSORD: Yes, absolutely.

16 MR. TRAYLOR: I guess I'm inquiring as to  
17 your level of knowledge of the difference between  
18 crude petroleum and asphalt cement.

19 MR. SYLVESTER: Asphalt cement? Or are you  
20 talking about the road material with the aggregate and  
21 asphalt?

22 MR. TRAYLOR: Do you know where gasoline  
23 comes from?

24 MR. SYLVESTER: Petroleum.

1 MR. TRAYLOR: Do you know where asphalt  
2 cement comes from?

3 MR. SYLVESTER: Petroleum.

4 MR. TRAYLOR: Do you know how you take a  
5 barrel of crude petroleum, and you break it down into  
6 the different volatiles that we sell -- to jet fuel,  
7 naphthalene, kerosene, diesel fuel, lubricating  
8 oils -- do you know what's left?

9 MR. SYLVESTER: Generally. You know, I'm  
10 not technically competent to testify to that -- to any  
11 of the specifics of the petroleum industry, no.

12 MR. TRAYLOR: A refinery takes crude  
13 petroleum and breaks it down into products that have a  
14 very high value, like gasoline, jet fuel, kerosene,  
15 naphthalene.

16 HEARING OFFICER TIPSORD: Excuse me. We  
17 need to have you sworn in.

18 MR. TRAYLOR: Yes.

19 (Witness sworn.)

20  
21 MARVIN TRAYLOR, called as a witness herein,  
22 having been first duly sworn, testified as follows:

23

24 HEARING OFFICER TIPSORD: And you can stay

1 right where you. Once you start giving us facts, we  
2 need to have you sworn in.

3 MR. TRAYLOR: I'm trying to explain that  
4 when the oil comes out of the ground, and it's crude  
5 petroleum, that's what was on the Exxon Valdez that  
6 wrecked and ruined the bay, that product is taken to a  
7 refinery. It might be owned by Exxon, Shell, BP,  
8 Amoco, and so on. It's broken down into these  
9 elements, and the way they break it down is, they heat  
10 the product to a thousand degrees Fahrenheit, they put  
11 it under vacuum. Fumes come off of this stuff. They  
12 distill it, condense it, divide it into components for  
13 sale. What's left is asphalt cement, which is the  
14 glue that holds the rock and the sand that came out of  
15 these quarries together for asphalt roads. It is  
16 inert. It is non-leachable. There is nothing -- it's  
17 already been exposed to a thousand degree temperature  
18 in a vacuum.

19 So I have two studies that I shared with the  
20 Illinois EPA in my efforts to get asphalt pavement  
21 added to the Clean Construction Debris legislation,  
22 which actually got done in 1992. There are numerous  
23 other national studies that shows asphalt cement  
24 contains no PAHs, no PNAs. So it is just a commonly

1 known fact that asphalt cement is inert and not a  
2 threat to the groundwater, but it's not clear to me  
3 that the Attorney General's Office understands what  
4 asphalt cement is.

5 MR. SYLVESTER: Is that a question based on  
6 your testimony? Do I agree? Is there a question  
7 pending?

8 MR. TRAYLOR: I've just always wondered why  
9 in all of your concerns you list asphalt as the  
10 problem.

11 We also did a study -- the Illinois Asphalt  
12 Paving Association hired a USEPA approved laboratory  
13 out of Indianapolis called Heritage Research and  
14 coordinated sampling with the Illinois EPA and the  
15 Illinois Department of Transportation to see if there  
16 was any significant difference on leachate tests run  
17 between concrete, asphalt concrete pavements, asphalt  
18 pavements, the rock and the soil alongside the roads,  
19 and the answer was, there was no significant  
20 difference.

21 Those research documents have been given to  
22 Illinois EPA, and that was the basis upon which they  
23 added reclaimed asphalt pavements to the list of clean  
24 construction debris. So I'm just --

1 HEARING OFFICER TIPSORD: Do you have those  
2 studies for the Board?

3 MR. TRAYLOR: I have them with me today.

4 HEARING OFFICER TIPSORD: Could we have  
5 those copies for the Board for the record?

6 MR. TRAYLOR: I've got other copies.

7 HEARING OFFICER TIPSORD: The first document  
8 I've been handed has Attachment 15 at the top of it.  
9 It is by the Heritage Research Group, "Evaluation of  
10 RAP for the Use as Clean Fill," by Anthony J. Kriech,  
11 K-R-I-E-C-H. It's dated January 30, 1991.

12 If there's no objection, we will enter that  
13 as Exhibit 60. Seeing none, it is Exhibit 60.

14 (Exhibit Number 60 was marked for  
15 identification and admitted into  
16 evidence.)

17 The second one is "Leachability of Asphalt  
18 and Concrete Pavements," March 5, 1992, also by  
19 Anthony J. Kriech, K-R-I-E-C-H. This one has  
20 Attachment 16 at the top, and it's March 5, 1992.

21 If there's no objection, we'll mark that as  
22 Exhibit 61. Seeing none, it is Exhibit 61.

23 (Exhibit Number 101 was marked for  
24 identification and admitted into

1 evidence.)

2 MR. TRAYLOR: So am I still up?

3 HEARING OFFICER TIPSORD: Go ahead.

4 MR. TRAYLOR: I'd also like to perhaps leave  
5 you with a letter that I wrote in 1992, which  
6 addresses this issue and summarized some of the things  
7 that I just told you, about what asphalt cement is,  
8 and the fact that it's inert, and it's the end  
9 product. At room temperatures, it's a solid and  
10 inert.

11 I wrote this letter in 1992 because the  
12 Tribune ran a story, whose headlines are: "Dumping of  
13 Asphalt Stirs Up Water Fears." Okay? And then it  
14 goes on, and this is right after the Illinois EPA  
15 agreed in testimony to support a legislative change  
16 that added reclaimed asphalt pavement to the  
17 legislative definition of Clean Construction and  
18 Demolition Debris, and I have the newspaper article  
19 here. And the letter goes on to talk about the  
20 misunderstandings about what asphalt cement is, and  
21 the fact that asphalt -- asphalt pavement is basically  
22 used to line the bottom of drinking reservoirs in  
23 southern California, because without that lining in  
24 there, the soil is so porous that they wouldn't retain

1 the water.

2 It goes on to say that the fish hatcheries  
3 in Oregon, whose fry are extremely sensitive to  
4 contaminants in the water, are lined with asphalt  
5 mixtures.

6 So I would like to leave a copy of this  
7 letter because it's pretty much layman's terms as to  
8 why reclaimed asphalt pavement shouldn't have any  
9 effect on drinking waters, as opposed to those two  
10 documents which are extremely highly technical  
11 chemical laboratory analyses.

12 MR. HENRIKSEN: And let me just -- the  
13 letter is addressed to Senator Doris Karpel, who is  
14 the sponsor of legislation that added reclaimed  
15 asphalt pavement to the definition of CCDD.

16 MR. TRAYLOR: And it also copied  
17 Representative William Petersen, Representative Larry  
18 Winland, who sponsored the legislation, Representative  
19 Lee Daniels, Senator Pate Phillip, Ms. Mary Gaede, and  
20 Mr. Kirk Brown.

21 HEARING OFFICER TIPSORD: I would also note  
22 that Senator Karpel was a former Board member.

23 MR. HENRIKSEN: Correct.

24 HEARING OFFICER TIPSORD: If there's no

1 objection, we will mark the November 4th, 1992 letter  
2 to the Honorable Doris Karpziel from the Illinois  
3 Asphalt Pavement Association, specifically  
4 Mr. Traylor, as Exhibit Number 62. Seeing none, it is  
5 Exhibit 62.

6 (Exhibit Number 62 was marked for  
7 identification and admitted into  
8 evidence.)

9 Were there any other questions for  
10 Mr. Sylvester?

11 MR. SYLVESTER: I have one other statement  
12 to make.

13 During previous testimony, we supplied the  
14 Lynwood results, and during examination by Mr. Huff,  
15 he identified PNAs and he asked me if the PNAs could  
16 be from asphalt, the source of PNAs, so I'm not the  
17 only person in this room that thought that same thing.  
18 Mr. Huff is an engineer, so there you have it.

19 HEARING OFFICER TIPSORD: Thank you,  
20 Mr. Sylvester.

21 It's 12:30. I think we'll take a short  
22 break. We only have the IEPA, and I think  
23 Mr. Henriksen has indicated to me that he would like  
24 to present some testimony as well.



1           So if it's all right with everyone, let's  
2           take about a 15-minute break. If you need a snack,  
3           there's a vending machine, and let's come back in and  
4           power through so those of us from Chicago can go home  
5           today.

6           (A fifteen-minute recess was taken.)

7           (Following are introductions from IEPA  
8           witnesses.)

9           MR. MORROW: My name is Les Morrow.

10          MR. CLAY: Doug Clay.

11          MR. WIGHT: I'm Mark Wight, W-I-G-H-T.

12          MS. FLOWERS: Stephanie Flowers.

13          MR. LIEBMAN: Chris Liebman.

14          MR. COBB: Rick Cobb, C-O-B-B.

15          MS. BLAKE MYERS: Terri Blake Myers.

16          MR. NIGHTINGALE: Steve Nightingale.

17          MR. HORNSHAW: Tom Hornshaw.

18          HEARING OFFICER TIPSORD: Mr. Wight, do you  
19          have a clean copy of your testimony?

20          MR. WIGHT: Yes, I do. Do you need just  
21          one?

22          HEARING OFFICER TIPSORD: Just one. If  
23          there's no objection, we will mark the Agency's  
24          Prefiled Testimony as Exhibit 63. Seeing none, it's

1 Exhibit 63.

2 (Exhibit Number 63 was marked for  
3 identification and admitted into  
4 evidence.)

5 MR. WIGHT: We have an additional document  
6 that is a correction to some of the data that was  
7 presented in Exhibit 63.

8 HEARING OFFICER TIPSORD: Okay. And this  
9 one, we'll need at least four or five copies.

10 MR. WIGHT: Okay. I'll explain briefly what  
11 this is and why we're submitting this.

12 In our response to the Board's Question 3A,  
13 the question was about the prevalence of the 620  
14 parameters in CCDD and uncontaminated soil materials,  
15 and we've presented some data in response to Question  
16 3A from a sampling exercise that was done in the fall  
17 of 2012 at twelve CCDD fill operations, and some of  
18 the data summary that we've presented was erroneous,  
19 so what I've done is prepare a corrective document  
20 that shows what the data should have been. There are  
21 about five corrections in that data, so I'd like to  
22 have that introduced as an exhibit.

23 HEARING OFFICER TIPSORD: All right. If  
24 there's no objection, we'll mark Correction to

1 Illinois Environmental Protection Agency's Responses  
2 to Prefiled Question No. 3A as Exhibit 64. Seeing  
3 none, it's Exhibit 64.

4 (Exhibit Number 64 was marked for  
5 identification and admitted into  
6 evidence.)

7 MR. WIGHT: I'll also mention that there are  
8 some additional copies of this correction on the back  
9 table, so anybody who would like to pick one up can  
10 get one. I'll have a few more here. I'll just put  
11 these on a stack, and there also was a small stack of  
12 copies of the Agency's Prefiled Response, and I  
13 inserted one of those in each of those copies, so  
14 anyone who picked up the larger copies of the Agency  
15 Responses already has one of these.

16 HEARING OFFICER TIPSORD: Then, Mr. Wight,  
17 did anyone want to present a summary of the testimony?

18 MR. WIGHT: I don't think we have a summary  
19 of testimony. We responded to pretty much everything  
20 we had an opinion on, and it became quite a lengthy  
21 document, so I don't think we'll attempt that, but we  
22 would like to make just a brief opening statement.

23 HEARING OFFICER TIPSORD: Okay.

24 (IEPA Witnesses sworn.)

1           IEPA WITNESSES LES MORROW, DOUG CLAY, CHRIS  
2   LIEBMAN, RICHARD COBB, TERRI BLAKE MYERS, STEVE  
3   NIGHTINGALE and THOMAS HORNSHAW, called as witnesses  
4   herein, having been first duly sworn, testified as  
5   follows:

6

7           MR. WIGHT:   And Doug Clay.

8           MR. CLAY:   Doug Clay with the Illinois EPA,  
9   and as Mark said, you know, we did respond to the  
10   questions as best we could, and we'd be happy to  
11   respond to any additional questions orally.

12           However, based on some of the recent  
13   testimony, I just wanted to clarify that the Agency,  
14   and what we believe is the need for groundwater  
15   monitoring as part of CCDD fill operations -- CCDD  
16   facilities and uncontaminated soil fill operations has  
17   nothing to do with the fact that asphalt is included  
18   in the definition of CCDD.  It's solely because of the  
19   soil that is part of CCDD and the contaminants that  
20   would be carried by that soil.  So that's the point  
21   that I wanted to clarify.

22           HEARING OFFICER TIPSORD:  Okay.  With that,  
23   are there any questions for the IEPA?

24           Mr. Huff, we'll start with you.

1           MR. HUFF: So I think I'd like to talk about  
2 the Lynwood site results first, and if I heard  
3 Mr. Sylvester correctly, the agreement that's been  
4 reached is they basically have to meet the 620  
5 standard for four consecutive samplings.

6           So if you look at these results, you have  
7 nine out of nine wells that you received iron and  
8 manganese in all nine of those.

9           Let's assume that you see the exact same  
10 thing over the next three rounds. What are the  
11 remedial options that they could look at there in the  
12 Agency's mind?

13          MR. NIGHTINGALE: Well, I think the remedial  
14 options would really be based on the site specific  
15 conditions. I mean, we couldn't -- pump-and-treat  
16 would be one option, of course, but the type of  
17 treatment would be dependent upon the type of  
18 contamination that there was.

19          MR. HUFF: Let's focus on the iron and the  
20 manganese.

21          MR. NIGHTINGALE: Okay. Are you asking -- I  
22 guess it would be dependent upon where that water was  
23 going to, if we are pumping it up, or if they would  
24 discharging into the stream, the limitations would be

1 dependent upon where it's going.

2 MR. HUFF: Well, you have it in nine out of  
3 nine wells. I assume that these -- Lynwood, these  
4 nine wells are around the perimeter of this site.

5 MR. NIGHTINGALE: As far as -- I don't  
6 really have any background on the Lynwood.

7 MR. WIGHT: If I could intervene just  
8 momentarily. None of us were involved in the  
9 enforcement action, and we're not sure what the  
10 consent order provides for at the Lynwood facility.  
11 None of these people were involved in the enforcement  
12 case directly. So I don't think we can answer  
13 specific questions about Lynwood.

14 The data that we presented was submitted to  
15 the Agency from field operations staff that are  
16 interacting on that site, and those folks are not here  
17 to testify today. The data was submitted to Paul  
18 Purseglove, who also has been unable to attend today.  
19 So we really can't speak to the specifics of the  
20 Lynwood site.

21 We would be able to answer some additional  
22 questions in post-hearing comments, if that would be  
23 acceptable.

24 MR. HUFF: Well, given that Mr. Sylvester

1 said technically he couldn't answer any of these  
2 questions, I think that would be absolutely  
3 appropriate. So yes, please.

4 MR. WIGHT: Okay. It may be that the  
5 corrective action has not been determined at this  
6 point. It may be that they're just in the monitoring  
7 stage to determine what's going on.

8 MR. HUFF: I'm sure that's the case. My  
9 question is, what possible remedial options are there  
10 out there?

11 So we've established one from  
12 Mr. Nightingale, pump-and-treat. I was kind of  
13 looking through this list here of what other options  
14 you'd have for iron and manganese.

15 MR. WIGHT: So the question is generic,  
16 essentially. It wouldn't have to be iron -- or what  
17 would be a solution for any facility.

18 MR. HUFF: With iron and manganese, correct.

19 So continuing with Lynwood then, what was  
20 the development of these wells? How deep are they  
21 screened? Can you answer those two questions?

22 MR. CLAY: Once again, you know, we didn't  
23 design those. Our field staff was the geologist that  
24 was part of that and part of that approval. We can

1 provide that information in the post-hearing comments.

2 MR. HUFF: Which are the upgradient  
3 monitoring wells; that would be another question.

4 And then you noted in the Field Inspector's  
5 Report that Monitoring Well 8 contains wood debris,  
6 stained soil, items that I guess I wouldn't expect to  
7 be in a CCDD and uncontaminated soil fill.

8 In the Field Biologist's Report, he  
9 recommends to the Agency's geologists that the samples  
10 be collected on a filtered basis going forward. Is  
11 that basically consistent with Agency policy?

12 MS. BLAKE MYERS: Again, we don't know the  
13 specifics of that particular program and the  
14 groundwater monitoring specifics. It depends on what  
15 they are comparing those results to. Typically, you  
16 would collect totals to compare with 620 and then use  
17 dissolved for any specific analysis.

18 MR. COBB: 620 parameters were based on  
19 totals, but the methods and incorporations by  
20 reference allow you to use either approach.

21 MR. HUFF: Either approach being you  
22 couldn't take those out?

23 MR. COBB: Depending on what the program  
24 calls for. So if you need to do statistics, then you



1 need to do them --

2 MR. HUFF: So in the CCDD program, if I  
3 understood Mr. Sylvester right in his testimony and  
4 your Response to Prefiled Questions, they had  
5 violations of the 620 standards in all nine monitoring  
6 wells here, and they used total metals. So am I -- is  
7 it, then, the Agency position that total metals is  
8 what needs to be tested for CCDD?

9 MR. COBB: Once again, I have no knowledge  
10 about this particular case. We'll have to follow up  
11 in questions. We did respond to that, I believe, in  
12 answering the Board's prefiled questions.

13 MR. HUFF: Well, I asked the question again  
14 because I didn't understand the response.

15 So can you use the dissolved metals in the  
16 CCDD program to establish --

17 MR. COBB: You have to do both. The  
18 groundwater standards are based on totals, but if  
19 you're doing statistics, you would also do dissolved,  
20 just like I answered in the --

21 MR. HUFF: And I still don't understand  
22 that. So my question is, I do total, and then that  
23 determines that I have an exceedance, if it's over  
24 those numbers; correct?

1           MR. COBB: The standards apply also  
2           excepting of natural causes, so that's part of your  
3           determination, too.

4           MR. HUFF: Would sediment in the sample be  
5           deemed natural causes because the well couldn't be  
6           developed sufficiently to get rid of the sediment?

7           MS. BLAKE MYERS: Not necessarily. I mean,  
8           that would be a case-by-case basis.

9           MR. HUFF: How does one establish that kind  
10          of case-by-case basis at CCDD facilities?

11          MS. BLAKE MYERS: Well, just like you would  
12          with any groundwater monitoring well. A sample would  
13          have to be made to remove the sediment and redevelop  
14          the well.

15          MR. HUFF: And your experience is that in  
16          wells being in silty clay soils, you can remove that  
17          sediment sufficiently to achieve that?

18          MS. BLAKE MYERS: You know, I can't make an  
19          across-the-board statement in regards to that. I  
20          think, you know, again, that's going to depend on the  
21          site and specific geology.

22          MR. HUFF: So there's some geologies that  
23          you can't get that sediment level sufficiently low?

24          MS. BLAKE MYERS: In my experience, no.

1 MR. HUFF: Really.

2 MR. RAO: I have a follow-up question, based  
3 on the Agency's response about this issue of dissolved  
4 metals.

5 In response to Board Question 3C, the Agency  
6 states that compliance determination may be made by  
7 following the incorporated analytical methods under  
8 620.125. That provides for both total and dissolved  
9 analysis.

10 Please clarify whether Agency will allow  
11 compliance determinations to be made on the basis of  
12 dissolved metal analyses, if they are conducted in  
13 accordance with the analytical methods incorporated by  
14 reference.

15 MR. COBB: To do those statistics, you would  
16 follow those analytical appropriations by reference,  
17 including the Practical Guide for Groundwater Sample  
18 Collection, which is also incorporated by reference in  
19 620.125.

20 MR. RAO: And can you elaborate a little bit  
21 more about what it means to do the statistics? Is it  
22 part of the compliance monitoring?

23 MS. BLAKE MYERS: In my experience, yes.

24 MR. NIGHTINGALE: If they were doing their

1 initial sampling, and if they initially determined  
2 that they had an exceedance, they would be required to  
3 notify us, and that would be based on the total  
4 amount. It wouldn't be based on the dissolved.

5 MR. RAO: So there may be an initial sample,  
6 a total sample, that if it's above the standards, and  
7 then if they could go back and do additional samples,  
8 would that be based on dissolved metals?

9 MR. NIGHTINGALE: For the statistical  
10 approach, yes, it would be based on dissolved.

11 MR. RAO: And that's acceptable to the  
12 Agency?

13 MR. NIGHTINGALE: It would be acceptable to  
14 us, but I don't think it would be necessary because if  
15 they would -- if they didn't -- well, if they did  
16 exceed it, yeah, that would probably be their first  
17 approach, they would do the statistic analysis to show  
18 that it was not significantly increased above that.

19 MR. HUFF: And you're talking about  
20 dissolved metal at that point --

21 MR. NIGHTINGALE: Yes.

22 MR. HUFF: -- independent of the total  
23 result.

24 MR. RAO: Thank you.

1 MR. HUFF: Response to Question 3A lists the  
2 results of some metals that were found at CCDD sites  
3 in some of the materials that were there.

4 On iron, you found levels as high as 29,700  
5 versus a MAC of 15,000. What is the naturally  
6 occurring range of iron and uncontaminated soil in  
7 Illinois?

8 MR. CLAY: I don't know.

9 MR. HUFF: Same question with aluminum?

10 MR. MORROW: I'm Mr. Morrow, and the  
11 aluminum value and the iron value are based on a  
12 median.

13 MR. HUFF: A median value.

14 MR. MORROW: For background concentrations.

15 MR. HUFF: So that would be 50 percent of  
16 all those samplings --

17 HEARING OFFICER TIPSORD: Mr. Huff, let him  
18 finish, please. Go ahead, Mr. Morrow.

19 MR. MORROW: That's based on the median  
20 value for the entire State of Illinois.

21 We segregated MSA counties, metropolitan  
22 statistical areas, and non-MSA values for our  
23 counties, so we have two background values for each  
24 one of those methods.

1 MR. HUFF: So 50 percent of the soil in  
2 Illinois would exceed the iron MAC value; is that  
3 correct?

4 MR. MORROW: Roughly, yes.

5 MR. HUFF: Roughly. Same question with  
6 aluminum?

7 MR. MORROW: Correct.

8 MR. HUFF: How about magnesium?

9 MR. MORROW: Correct.

10 MR. HUFF: And manganese?

11 MR. MORROW: Same.

12 MR. HUFF: Same. And hexavalent chrome  
13 versus total chrome MAC, we have a MAC value of 21  
14 milligrams per kilogram total chromium. What  
15 percentage of the state naturally exceeds that 21  
16 milligram per kilogram?

17 MR. MORROW: I couldn't say.

18 MR. HUFF: Could the Agency get back to us  
19 on that? Because you have the statistical data when  
20 those numbers were put into TACO.

21 MR. MORROW: Certainly.

22 MR. HUFF: Thank you.

23 And you also found a pH of 10.2 in, I  
24 believe, one of sites that you found, and could that

1 be due to the concrete that was also contained in the  
2 CCDD facility?

3 MR. CLAY: I don't know what it was due to.

4 MR. HUFF: Page 17 of the Agency's response,  
5 end of the first paragraph, it says, quote: If after  
6 completion of the corrective action under the GMZ the  
7 groundwater quality has not been restored, the  
8 concentrations determined by groundwater monitoring  
9 may become a new standard within the GMZ.

10 Could you expand on that, what you  
11 anticipate the process is going to be? A CCDD  
12 facilities goes out and samples, they find an  
13 exceedance, let's say, of iron, and they report that  
14 to the Agency. They do their verification sample and  
15 it has iron in there. What, then, are the next steps?

16 MR. NIGHTINGALE: Well, the next step would  
17 be that they would have -- generally, they'd have 120  
18 days to submit to us their Corrective Action Plan and  
19 to also have it implemented within 120 days.

20 MR. HUFF: So you would expect within 120  
21 days, if they chose pump-and-treat, that they would  
22 install pumping wells, get their MPDS permit or  
23 pretreatment permit, and be operational?

24 MR. NIGHTINGALE: Well, they would have to

1 begin corrective action of the component. So I would  
2 imagine that the way that it's written is, yeah, they  
3 would have to have everything done and in place, or at  
4 least started, I guess.

5 MR. HUFF: And then where does the GMZ come  
6 into play, then, in that sentence? After they pump  
7 for a while and they aren't meeting the iron number,  
8 then when does the GMZ come into play?

9 MR. NIGHTINGALE: Well, I think the GMZ  
10 would come into place along with the corrective  
11 action. You would apply for the GMZ to give you  
12 relief from the limitations during your corrective  
13 action.

14 MS. BLAKE MYERS: And it also would give you  
15 relief from enforcement.

16 MR. COBB: Let me mention one other thing,  
17 too, Mr. Huff. You're using the example of iron. The  
18 Board's groundwater quality standards do apply subject  
19 to natural causes, so if the exceedance was due to  
20 iron, it would be coming from the unit, not naturally  
21 occurring. I.

22 Just wanted to make sure that was clear for  
23 the record.

24 MR. HUFF: I didn't understand that,



1 Mr. Cobb. I'm sorry.

2 So to go back to your example in Lynwood  
3 here where we have nine out of nine wells --

4 MR. COBB: I can't answer anything on  
5 Lynwood.

6 MR. HUFF: So you have a site that has high  
7 iron in their monitoring wells. I go out, I do a  
8 dissolved, and it's all dissolved because you've got  
9 reducing conditions there, what is the next step,  
10 then, for the CCDD facility?

11 MR. COBB: The Board's groundwater quality  
12 standards apply subject to natural causes, so if it's  
13 not due to natural causes, then your next approach  
14 would be to come in and apply for a GMZ and look at  
15 your corrective action options.

16 And then after applying those, then, you  
17 know, if you got to a certain point, under Section  
18 620.450, the alternative standards, then you would be  
19 looking at it if you'd minimize the exceedance to the  
20 extent practicable or all those kind of reasonable  
21 things that you do under the GMZ.

22 MR. HUFF: I was wanting to establish that  
23 it's naturally occurring and not due to the fill  
24 material that has been placed in that quarry.

1           MR. COBB: I believe the rules allow you to  
2 establish background, what's coming in, what's  
3 upgradient of your site, what's downgradient of the  
4 site. So that's certainly one of the things you would  
5 look at is what's the chemistry coming in and what's  
6 the chemistry going out.

7           MR. HUFF: We've had the --

8           MR. COBB: And that could be anthropogenic,  
9 or that could be in some cases naturally occurring.  
10 More than likely, you may not have a lot of other  
11 anthropogenic sources of iron, you might, but one  
12 would expect that certain levels would be naturally  
13 occurring.

14          MR. HUFF: We've had testimony over the  
15 proceedings here that a lot of times some of these  
16 quarries when they turn off the pumping, it becomes  
17 more of a radial flow, so it's not that easy to  
18 establish upgradient on background concentrations.

19          So I'm back then to the question, how does  
20 one establish that this is a background concentration  
21 in that scenario where they put in four, five, eight  
22 wells, and just like Lynwood, they all show elevated  
23 iron.

24          MR. COBB: I believe there's also an

1 alternative corrective action, if it can't be a  
2 provision that shows that you're not -- if you're not  
3 the source, then maybe that's the scenario you're  
4 describing where you just can't figure it out. You  
5 can't figure out background, it's not you, so you do  
6 have an opportunity to make an alternative corrective  
7 action determination.

8 MR. HUFF: What kind of data would they need  
9 in order to come in and satisfy the Agency on that?

10 MS. BLAKE MYERS: Typically, you're going to  
11 have the groundwater monitoring; you're going to have,  
12 you know, what alternative sources it could be.

13 There are times that in other programs, for  
14 example, in RCRA, background doesn't have to be true  
15 upgradient. It could be unaffected by the facility.  
16 You can find an area of background that, you know,  
17 under radial flow is indicative of that area. It  
18 would have to be close enough.

19 I mean, there are a lot of different ways  
20 that you could go about doing that, and it would be  
21 site specific.

22 MR. HUFF: So far more extensive than the  
23 first quarter of sampling when they first put these  
24 monitoring wells in. I mean, it would require a fair

1 amount of additional work to investigate.

2 MS. BLAKE MYERS: Potentially, but  
3 potentially not.

4 MR. HUFF: Moving on to page 19, PC #59 at  
5 4. The Agency notes: With no intervention other than  
6 groundwater use prohibition, the offending materials  
7 already within the fill operations would continue to  
8 leach contamination, and the resulting groundwater  
9 contamination plumes would continue to migrate and  
10 expand until reaching some sort of equilibrium at an  
11 unknown time and distance.

12 And we're referring here, I believe, to the  
13 question about some kind of grandfather idea that I  
14 had floated.

15 My question is, wouldn't the same statement  
16 be true if the quarries elected basically to vacate  
17 this marketplace, where to the extent that if there's  
18 a preexisting condition for material that they took in  
19 there, possibly improperly over the last umpteen years  
20 since CCDD material was brought into these fills,  
21 that's one of the options they have. They can walk  
22 away and not put these monitoring wells in, and the  
23 Agency's concern is then still spot on point. You're  
24 not going to have any monitoring data to say there is

1 an impact; is that correct?

2 MR. CLAY: The -- what happened at these  
3 mines, quarries, or other excavations that are  
4 regulated under 1100, prior to the 1100 rules going  
5 into place, it does not alleviate or excuse  
6 contamination that may have been put in place.

7 So, in other words, you can't just close a  
8 facility and say, I'm not liable. If you cause  
9 groundwater contamination, whatever was put in there,  
10 then conceivably you could be responsible for that.

11 I mean, the standard, prior to this current  
12 rulemaking, there were no numbers, but the standard  
13 was uncontaminated CCDD going into these facilities.  
14 So as far as we're concerned, there shouldn't be any  
15 grandfathering of contaminated materials being put  
16 into those facilities.

17 MR. HUFF: Page 20, Response to Question  
18 Number 12, the Agency writes: However, there may be  
19 other options to a pump-and-treat remediation, such as  
20 hooking up existing contaminated or threatened potable  
21 water systems to alternative safe and reliable sources  
22 of drinking water and adopting groundwater use  
23 prohibitions to restrict new drinking water uses.

24 So that one kind of confuses me, also. If

1 we assume that there are no public or private water  
2 supply wells that are impacted by CCDD, but their  
3 groundwater monitoring program shows an exceedance of  
4 620, can they go directly to a groundwater use  
5 restriction to prevent new wells from that area?

6 MR. COBB: Number one, the Board's  
7 groundwater classification system in Class I applies  
8 to existing and potential uses of groundwater as a  
9 potable resource of groundwater. So right off the  
10 bat, your example only includes existing uses.

11 MR. HUFF: Well, but that --

12 MR. COBB: At least, that's the way you  
13 stated it.

14 MR. HUFF: If I put in a prohibition for  
15 new monitoring -- new drinking water wells inside the  
16 area of impact.

17 MR. COBB: That would certainly not be  
18 following the preventive nature of the Illinois  
19 Groundwater Protection Act, nor would it follow  
20 Section 12(a) that you can't threaten the preclusion  
21 of a use, and a preclusion of the use can include  
22 things even such as taste and odor. I know you're  
23 kind of stating no problem with chlorides, TDFs,  
24 sulfates. You know, those could threaten a preclusion

1 of a use, especially if it's potentially going to be  
2 used by a private well owner out there, they don't  
3 treat for that nasty stinking water like that.

4 MR. HUFF: Mr. Cobb, first of all, my  
5 statement on those was those compounds aren't related  
6 to uncontaminated soil and concrete. It wasn't to  
7 minimize those. This is not just -- we're not taking  
8 everything in there. It's just not waste that we're  
9 taking in here. So I go back and I want to read this  
10 sentence again to you.

11 However, there may be other options to a  
12 pump-and-treat remediation, such as hooking up  
13 existing contaminated or threatened potable water  
14 systems to alternative safe and reliable sources of  
15 drinking water and adopting groundwater use  
16 prohibitions to restrict new drinking water uses.

17 MR. COBB: The intent of the GMZ is to  
18 mitigate, not just write off groundwater. So, but,  
19 yeah, we don't expect the impossible to happen, and  
20 that's why Section 620.450 is written the way it is  
21 that, you know, you may not be able to get back to the  
22 miracle, so you may get at some level where you've  
23 done all you can mitigation-wise, and so that's the  
24 way the GMZ is written, to mitigate an impairment, not

1 just right upfront put a restrictive use ordinance in  
2 and automatically write the groundwater off.

3 MR. HUFF: So if I keep going back to the  
4 sentence: And adopting groundwater use prohibitions.

5 MR. COBB: "And." That means in condition  
6 with other methods.

7 MR. HUFF: Well, and the other methods were  
8 to basically take any threatened or impacted potable  
9 water systems off.

10 MR. COBB: Sure, there's other ways. You  
11 could put a cap on it, you could remove it, you could  
12 do a lot of different things. Those are all site  
13 specific and based on the approved corrective action  
14 that the Agency would be looking at.

15 MR. HUFF: What I'm trying to understand is  
16 the last part of that sentence, that "adopting  
17 groundwater use prohibitions to restrict new drinking  
18 water uses."

19 MR. COBB: Let me explain it one more time.  
20 Number one, you'd look at all options for mitigating  
21 the impairment. That would be the very last thing we  
22 would look at, and that's why it says "and" we would  
23 expect some other type of mitigative approach. But  
24 then at the very last, if you "all bets are off" then



1 that might be we don't expect the impossible, and I  
2 think the Section 620.450 is very clear on that, that  
3 you have other options in terms of obtaining the  
4 standards, and that could be one under a certain set  
5 of conditions.

6 So it's an "and," not just a statement by  
7 itself.

8 MR. HUFF: The "and", if you read the  
9 sentence, is an alternative to pump-and-treat, such as  
10 taking existing and potentially impacted groundwater.

11 MR. COBB: Let me go back to that. When you  
12 do pump-and-treat, sometimes you reach an acetonic  
13 level where you can't go down any farther, and that's  
14 what I'm saying. Once again, you may have gone as far  
15 as you can with that mitigative effect, and then to  
16 assure the threat of preclusion of use off site, then  
17 that is where you may come in with that "and."

18 MR. WIGHT: If I might just add momentarily,  
19 620.450 --

20 MR. HUFF: Excuse me. Have you been sworn  
21 in?

22 MR. WIGHT: Well, I was going to read the  
23 law here on that. I'm not testifying as to facts.

24 620.450, it is titled, Alternative

1 Groundwater Quality Standards. So this is part of  
2 your corrective action process, and as Rick said, it's  
3 meant to improve groundwater quality.

4 It says, under Subsection (a)(4): After  
5 completion of a corrective action, as described in  
6 Section 620.250(a), the standard for such released  
7 chemical constituent is (a) the standard is set forth  
8 for the applicable -- I'm paraphrasing here -- (a) the  
9 standard is set forth for the applicable groundwater  
10 quality standard under 620, whether that's 410, 420,  
11 430 or 440, or the concentration is determined by  
12 groundwater monitoring if such concentration exceeds  
13 the standard for the appropriate class set forth in  
14 Part 620 and, to the extent practical, the exceedance  
15 has been minimized and beneficial use as appropriate  
16 for the class of groundwater has been returned, and  
17 any threat to the public health or the environment has  
18 been minimized.

19 MR. COBB: So under that Board standard, if  
20 you can't get down to that with the mitigation, like a  
21 pump-and-treat, or the cover, or whatever, then to  
22 further meet the standard, we would consider a  
23 restricted use ordinance; not at the beginning.

24 MR. HUFF: Thank you.

1 HEARING OFFICER TIPSORD: Mr. Henriksen?

2 MR. HENRIKSEN: Yes. I have some questions.

3 Going to the first page of your Responses,  
4 response to question one, it stated that: Part 1100  
5 regulations and the proposed Subpart G groundwater  
6 monitoring regulations generally apply to all  
7 excavations that are CCDD fill operations that are  
8 required to be permitted pursuant to Section 22.51 of  
9 the Act, and it goes on to say: However, Section  
10 1100.101(b)(2) and (b)(3) contain exclusions from the  
11 Part 1100 regulations for some excavations accepting  
12 CCDD as fill material.

13 I guess I'll direct my questions to  
14 Mr. Clay, if I could.

15 So reading this, then, as Part 1100 rules,  
16 therefore, the proposed Subpart G groundwater  
17 monitoring rules would only apply to permitted CCDD  
18 sites; correct?

19 MR. CLAY: Correct.

20 MR. HENRIKSEN: I read your -- I went on  
21 your website yesterday and I counted that there are 69  
22 permitted CCDD sites. Is that about accurate?

23 MR. CLAY: I believe there are 49 permitted  
24 CCDD and 18 uncontaminated soil fill operations.

1 That's the number that we have. We can look at that.

2 Total is 67.

3 MR. HENRIKSEN: Thank you. I was just going  
4 off your website.

5 So total of -- so 49 CCDD sites that are  
6 permitted, and you said 18 permitted soil fill  
7 operations.

8 MR. CLAY: Well, notified, yeah.

9 MR. HENRIKSEN: Thank you.

10 And you stated there are exclusions from the  
11 Part 1100 regulations for some excavations accepting  
12 the CCDD as fill material; correct?

13 MR. CLAY: Yes.

14 MR. HENRIKSEN: Now, these are in addition  
15 to a farm field or other naturally occurring  
16 depression that CCDD can be deposited into without  
17 permits by your agency; correct?

18 MR. CLAY: Well, what I was referring to was  
19 the commonly referred to as the IDOT exemption for  
20 filling a former borrow pit, for example.

21 MR. HENRIKSEN: We'll get to that, but I  
22 just want to put this into context.

23 There are -- currently people can dispose of  
24 CCDD or clean soil and not be regulated by the EPA in

1 a farm field with a naturally occurring depression,  
2 ravine; correct?

3 MR. CLAY: Yeah, as long as it's not above  
4 the surrounding topography.

5 MR. HENRIKSEN: So this borrow pit you're  
6 talking about, this is something in addition to what's  
7 been -- you know, in addition to farm fields or  
8 ravines that takes CCDDs; correct?

9 MR. CLAY: Yeah, it would be a low lying  
10 area.

11 MR. HENRIKSEN: I'd like to put a copy of  
12 the Agreed Order into the record, and so I'll give  
13 copies to the EPA so we'll be on the same page here.

14 HEARING OFFICER TIPSORD: Okay.

15 MR. HENRIKSEN: What I'd like to discuss  
16 now --

17 HEARING OFFICER TIPSORD: Before you begin,  
18 this is Memorandum and Order. It's number 11-MR-280,  
19 Circuit Court of Third Judicial District, Madison  
20 County, Illinois, and the date is February 15, 2013.

21 If there is no objection, we'll mark this as  
22 Exhibit 65. Seeing none, we'll mark this as Exhibit  
23 65.

24 (Exhibit Number 65 was marked for

1 identification and admitted into  
2 evidence.)

3 MR. HENRIKSEN: I made extra copies so you  
4 could share it. I'm going to refer to this as the  
5 Maclair Asphalt case.

6 MR. CLAY: John, before you do that, can I  
7 make a clarification statement?

8 MR. HENRIKSEN: You certainly may, Mr. Clay.

9 MR. CLAY: The exemption I believe you were  
10 referring to when you talked about low lying areas in  
11 farm fields is in Section 3.160(b) of the  
12 Environmental Protection Act, and it does allow for  
13 those uses, and there are a number of conditions they  
14 have to meet as part of that, such as not going above  
15 the surrounding elevation.

16 MR. HENRIKSEN: But they're not under a  
17 permit body by your Agency; correct?

18 MR. CLAY: They're not under permit,  
19 correct.

20 MR. HENRIKSEN: Or they don't have to  
21 register with your Agency.

22 MR. CLAY: That's correct.

23 MR. HENRIKSEN: Thank you.

24 Now, I've handed you the Memorandum and

1 Order for the Maclair Asphalt Sales case, and it  
2 refers to a borrow pit. You know, just -- and we had  
3 a discussion about this at your office.

4 Let's please, if you would, outline, you  
5 know, what this particular enforcement action is about  
6 that is referenced in this particular order that's  
7 part of the record.

8 MR. CLAY: I believe this particular Maclair  
9 Asphalt Case involved our field staff noticing that an  
10 area -- I think it was an area had been filled, a  
11 former borrow pit had been filled or partially filled,  
12 and they went out, did an inspection, and at the time  
13 believed there was material taken that was not CCDD,  
14 and so a violation notice was submitted.

15 Upon, you know, the further investigation,  
16 it was determined that it was CCDD, and that as part  
17 of the case, that it was IDOT was the one that had put  
18 the material there and that it did fall under the IDOT  
19 exemption requiring a permit for this type of  
20 facility.

21 Further, there were depositions taken, I  
22 believe, from the IDOT engineers identifying that the  
23 material was uncontaminated.

24 MR. HENRIKSEN: Now, so, given this case,

1 these -- the exceptions that you refer to from your  
2 Agency's regulation would now extend to borrow pits  
3 approved by IDOT or counties or municipalities, to  
4 approve the CCDD for road projects; correct?

5 MR. CLAY: Well, I think that's what the  
6 exemption specifically is for, is for IDOT, counties  
7 or municipalities, and there are other conditions as  
8 part of them using these borrow pits for that  
9 material.

10 MR. HENRIKSEN: That's what this case makes  
11 clear. Because prior to this case, we were under the  
12 understanding, and the EPA was under the understanding  
13 that the IDOT exemption applied only to CCDD and clean  
14 soil disposed of on site; correct?

15 MR. CLAY: Yes. There was some confusion by  
16 the Agency as far as what that application was.

17 MR. HENRIKSEN: But since the Maclair  
18 Asphalt case and since the work you all did to  
19 understand what they were doing, borrow pit operators  
20 can take CCDD from an IDOT job or a county job or a  
21 municipal job, and not have to get a permit from you  
22 all.

23 MR. CLAY: That's correct, as long as they  
24 meet other criteria, such as the material needs to be



1 uncontaminated, they need to have documentation of  
2 that. They need to -- you know, they should keep that  
3 material on site, that documentation on site, and an  
4 engineer still has to -- a professional engineer still  
5 has to sign off. Not a professional engineer, an  
6 engineer. So an IDOT, municipal, or county engineer  
7 would have to sign off on that.

8 MR. HENRIKSEN: But the people that might  
9 operate one of those borrow pits, they're not required  
10 to have a PID or FID on site to see if there's any  
11 VOCs in that material; correct?

12 MR. CLAY: That's correct.

13 MR. HENRIKSEN: And the people at the site  
14 are not required to collect your LPC 662s or 663s;  
15 correct?

16 MR. CLAY: Correct.

17 MR. HENRIKSEN: And once these are filled  
18 and the road job's over, the proposed groundwater  
19 monitoring rules that we're talking about would not  
20 apply to these particular holes in the ground;  
21 correct?

22 MR. CLAY: That's correct.

23 MR. HENRIKSEN: And there are borrow pits --  
24 I mean, we've all -- you've seen borrow pits in your

1 long career as an esteemed worker for the Illinois  
2 Environmental Protection Agency; correct?

3 MR. CLAY: Yes, just driving along the  
4 highway.

5 MR. HENRIKSEN: There are borrow pits  
6 everywhere in this state when you need to create an  
7 embankment to put a road over a highway; correct?

8 MR. CLAY: Correct.

9 MR. HENRIKSEN: Would you say there's  
10 hundreds? Do you have any idea of how many of these  
11 structures have been created over the years in this  
12 state?

13 MR. CLAY: I have no idea about how many.

14 MR. HENRIKSEN: Would you be surprised to  
15 learn that the IDOT approves roughly 200 of these  
16 sites, new borrow pits, every year?

17 MR. CLAY: I was not aware of that. I  
18 really hadn't thought about it.

19 MR. HENRIKSEN: But none of these sites are  
20 required to be permitted by your agency.

21 MR. CLAY: That's true.

22 MR. HENRIKSEN: And you don't really know  
23 what's going in there, other than what, you hope,  
24 someone tells you.

1 MR. CLAY: Well, we're relying on the --  
2 like you said, the IDOT engineer, the county engineer,  
3 or the municipal engineer, and I might point out that  
4 those -- that exemption for those borrow pits is a  
5 statutory exemption. It wasn't something the Agency  
6 proposed.

7 MR. HENRIKSEN: Right. I just want to just  
8 make it clear, or at least to our understanding, these  
9 groundwater monitoring rules that would apply to these  
10 49 CCDD permitted sites, however many there are in the  
11 next year or so, those rules would not apply to these  
12 many borrow pits that could take this material;  
13 correct?

14 MR. CLAY: They would not apply to those.

15 MR. HENRIKSEN: Thank you. Going to page 9  
16 of --

17 HEARING OFFICER TIPSORD: Mr. Henriksen,  
18 before you move along too far, I believe Ms. Glosser  
19 has a follow-up question.

20 MR. HENRIKSEN: Oh, sorry.

21 MS. GLOSSER: I believe it's related to the  
22 same question.

23 Now that I understand this case, the Maclair  
24 Asphalt, you may not know the answer to this question,

1 but do you know how many DOT only -- or maybe I should  
2 say -- transportation-related sites there are in the  
3 state right now? Do you know how many there are?

4 MR. CLAY: The borrow pit types?

5 MS. GLOSSER: The borrow pit types.

6 MR. CLAY: No, I do not.

7 MR. GLOSSER: In your response to the  
8 question that I raised, you said that one of the  
9 reasons why those sites were exempted, why they're  
10 statutorily exempted, were due to geologic conditions;  
11 and so I'm really curious whether or not a statewide  
12 assessment has been done of these sites to understand  
13 the geology of the transportation-only related sites.  
14 I mean, do we know what the geology is of these sites  
15 to actually know they're different from quarries and  
16 other excavations that require a CCDD permit?

17 MR. CLAY: What are you referring to as far  
18 as --

19 MR. GLOSSER: These are your questions and  
20 responses on pages 1 through 8 of the questions that  
21 IEPA asked about these exemptions, and you cited  
22 geologic differences.

23 MR. CLAY: Could you give me one occasion?

24 MR. GLOSSER: On page 3, for example, it was

1 actually repeated various times, IEP Response:  
2 Geologic differences aside, the primary blah, blah,  
3 blah.

4 So geologic differences were cited multiple  
5 times as a reason why these sites could be exempted,  
6 and I don't understand what the geology is, and I'm  
7 hoping that there is a set of data somewhere that  
8 shows what the geology is of these sites, as compared  
9 to quarries and other excavations, that would warrant  
10 exempting them.

11 MR. CLAY: There's not a study or anything  
12 we did. What we were trying to do is respond to the  
13 question above, which is what prevents CCDD or other  
14 materials from IDOT projects that are dumped into  
15 excavations and causing an exceedance of Class I  
16 groundwater quality standards, Illinois Administrative  
17 Code 620.410.

18 I'm simply stating there that the -- other  
19 than geological differences aside -- in other words,  
20 the geology may prevent it from contaminating  
21 groundwater, but other than that, there is a statutory  
22 exemption.

23 MS. GLOSSER: Well, I understand the  
24 statutory exemption. I was just concerned about

1 citing the -- I was wondering what information there  
2 was to support the statement that there were geologic  
3 differences that -- I assume there would be some study  
4 or some report or something to say we've examined  
5 this, and geologic conditions would warrant an  
6 exemption of these facilities. But if there's not,  
7 then that's fine.

8 MR. WIGHT: There's not. It's just an  
9 abundance of caution to say those factors aside,  
10 because we don't know what those factors are.

11 MR. COBB: It's because your question used  
12 Class I, which is based on certain geologic knowledge,  
13 and exactly -- in other words, you look at the Board's  
14 groundwater classification system, Class I, it's all  
15 based on geologic information, and since we don't know  
16 that, geologic differences aside, it's statutory. In  
17 other words, it might be Class II, or it might be --  
18 we don't know. So it's just the way the question was  
19 written.

20 MS. GLOSSER: Okay.

21 MR. COBB: Because Class I is based on  
22 geology, which would assume that you had all the data  
23 there and every case known, it was Class I when, in  
24 fact, we don't.

1 MR. GLOSSER: Okay.

2 Well, I have another question related to the  
3 same topic, and that's, another reason that was given  
4 in the response for exempting these sites from  
5 accepting materials from DOT counties, municipalities,  
6 and townships, is that DOT has its own procedures and  
7 engineers, which I understand they do, to implement  
8 their own procedures, as opposed to going through  
9 IEPA.

10 Do you know whether IDOT staff implements  
11 these procedures, then, for county, municipal, and  
12 township projects as well, or are the townships  
13 responsible for doing their own testing and their own  
14 methods before they can deposit the material?

15 MR. CLAY: It's my understanding that they  
16 are -- they follow the IDOT specifications, the  
17 counties and the municipalities.

18 MR. GLOSSER: And townships.

19 MR. CLAY: And townships.

20 MS. GLOSSER: And we assume that they have  
21 the professional staff, the engineers, etc., to do  
22 these?

23 I mean, I know that statutory exemption is  
24 nothing that you can really explain too much, but I'm

1 just trying to figure out how this huge number or this  
2 huge class of material gets exempted, particularly  
3 when I hear conversation from people today, often  
4 times what gets referenced as being put into permitted  
5 CCDD sites is highway construction materials; and yet  
6 then you end up discovering that these can actually go  
7 lots of other places that are not permitted or not  
8 regulated in any way at all, except by DOT doing their  
9 procedures.

10 I was just concerned. I'm just concerned  
11 about how they get to be exempted.

12 Another question, IEPA notes that  
13 transportation-related excavations are exempt, apply  
14 only to CCDD facilities, but the exemption was  
15 extended by EPA to the uncontaminated soil fill  
16 operations as well to maintain consistency with DOT  
17 operations, and I'm just concerned that given the  
18 concerns that have been raised about the potential for  
19 groundwater contamination, particularly from soils,  
20 can you explain and provide other information about  
21 why that exemption was extended to soil fill  
22 operations?

23 MR. CLAY: Well, again, to be consistent,  
24 because putting the same type of groundwater



1 monitoring and other conditions for uncontaminated  
2 soil fill operations, the statutory exemption, at the  
3 time there was no -- there wasn't a definition of a  
4 contaminated soil fill operation. It didn't exist.

5 So to be consistent, the exemption from  
6 being regulated under 1100, we thought only made sense  
7 to extend that exemption to uncontaminated soil fill  
8 operations.

9 MR. GLOSSER: Do you think another way of  
10 being consistent might have been to extend the same  
11 protection to soil fill operations, given the concerns  
12 raised about soil going into quarries and other  
13 excavations? That's another way of being consistent.

14 MR. CLAY: Same protection. I mean --

15 MS. GLOSSER: I mean, if you extended the  
16 same protections, the same regulations to soil going  
17 into DOT-related sites, that would be being consistent  
18 with the concerns that you're having with soils going  
19 into quarries.

20 MR. WIGHT: Do you mean adding groundwater  
21 monitoring requirements?

22 MS. GLOSSER: Well, what you've extended,  
23 the soil fill operations apparently are not exempted  
24 statutorily. That's a decision that EPA made. So

1 another way of being consistent would be to say, we're  
2 really concerned mostly or primarily about soils, and  
3 so we're going to apply these same regulations to  
4 these soil sites that have DOT material as we would  
5 the ones that are going into quarries because we are  
6 concerned about soils, so we are going to be  
7 consistent about soils, not the process.

8 MS. FLOWERS: Soil is a component, though,  
9 of CCDD. The soil is a component of CCDD, so if you  
10 just threw some concrete in --

11 MS. GLOSSER: Well, I understand that, but  
12 there are soil-only sites, I mean, that only take  
13 soils, so I just was wondering why we didn't extend  
14 these regulations to those sites because we're  
15 concerned about soils.

16 Just an observation, and that's my last  
17 question.

18 MR. HENRIKSEN: Speaking about what IDOT  
19 requires, are you aware of what IDOT requires before  
20 they will allow material to go in a borrow pit?

21 MR. CLAY: It's been a while but, I mean,  
22 I've read the specification that IDOT has. I mean,  
23 they do sampling. They have extensive specifications  
24 in what they do and, you know, investigating whether

1 there's contamination, and then whether or not it can  
2 go into one of these facilities. I can't speak  
3 specifically to what that is, though.

4 MR. HENRIKSEN: But those requirements,  
5 those due diligence requirements or upfront  
6 requirements, that doesn't extend to including  
7 somebody at the borrow pit itself to see what comes  
8 in; correct?

9 MR. CLAY: That's correct.

10 MR. HENRIKSEN: And that doesn't include,  
11 you know, any kind of paperwork similar to your 662s  
12 or 663s; correct?

13 MR. CLAY: They don't have to have those  
14 forms, no.

15 MR. HENRIKSEN: And it certainly doesn't  
16 involve any sort of groundwater monitoring after the  
17 hole is filled.

18 MR. CLAY: No, it doesn't. No.

19 MR. WIGHT: They're clearly unregulated  
20 facilities, we've stipulated that, so none of the  
21 things in the regulations would apply.

22 MR. HENRIKSEN: Thank you.

23 Going on to page 9 of your submittal, it  
24 talks about, Inspectors went to twelve sites

1 collecting random samples of recently deposited  
2 surface soil from the active fill face at the sites.  
3 These samples are sent to the Agency's lab and  
4 analyzed for pH, metals, and semi-volatiles. At ten  
5 of the twelve sites sampled, exceedances of the MACs  
6 were found.

7 So in reference to a list of metals where  
8 exceedances were found, did the IEPA run extractions  
9 in any of these samples?

10 MR. MORROW: Excuse me, while I go through  
11 the data set.

12 No. They're all totals.

13 MR. HENRIKSEN: Totals. Why were  
14 extractions not run?

15 MR. MORROW: I can't answer that question.  
16 These were performed by the field office, and I do not  
17 know.

18 MR. WIGHT: Mr. Purseglove was unable to  
19 attend today, but we would answer that question in  
20 post-hearing comments, if that would be acceptable.

21 MR. HENRIKSEN: Let me ask this. Are totals  
22 that are in the report, or results that are in the  
23 report, are totals a good indicator of what would  
24 leach into groundwater?

1 MR. MORROW: Not necessarily.

2 MR. HENRIKSEN: It's my understanding the  
3 EPA encourages contractors to reanalyze failing total  
4 metal samples with an extraction method to determine  
5 if there's an actual risk to groundwater; correct?

6 MR. CLAY: Correct.

7 MR. HENRIKSEN: And that's because an  
8 extraction is a good indicator of impacts on  
9 groundwater; correct?

10 MR. CLAY: That's correct.

11 MR. HENRIKSEN: And totals in and of  
12 themselves are not; correct?

13 MR. CLAY: Correct.

14 MR. HENRIKSEN: And the data that's referred  
15 to are -- the results are totals.

16 MR. CLAY: That's correct.

17 MR. HENRIKSEN: Thank you.

18 MR. RAO: May I have a few follow-ups on  
19 that last response --

20 MR. HENRIKSEN: Please.

21 MR. RAO: -- on Mr. Purselove and respond  
22 to your comments.

23 Would it be possible for the Agency to  
24 provide additional information about the types of

1 facilities that were sampled, whether they were CCDD  
2 or uncontaminated soil facilities, and also their  
3 locations?

4 MR. WIGHT: Yes.

5 MR. CLAY: Yes.

6 MR. RAO: And we'd also like to get some  
7 additional information about the sampling protocols  
8 that were used at each of these facilities and whether  
9 those samples were taken to be representative of  
10 what's present in those facilities.

11 MR. CLAY: Okay.

12 MR. RAO: And I think you may have answered  
13 this question before, but we'd like the Agency to  
14 comment on whether any comparisons were made of the  
15 sample metal concentrations with background soils in  
16 the state. I thought you earlier mentioned that maybe  
17 no comparisons were made, or if you did, that would be  
18 helpful.

19 MR. CLAY: We can respond to that.

20 MR. RAO: And do any of these ten facilities  
21 monitor groundwater?

22 And the last question is, if the facilities  
23 were in compliance with existing regulations, can the  
24 Agency speculate on the reasons for exceedances of the

1 MACs?

2 MR. CLAY: We can respond to all those in  
3 final.

4 MR. HENRIKSEN: Thank you.

5 On page 14 in response to question 8  
6 regarding the lack of data showing contamination  
7 associated with CCD facilities, it says: New  
8 information is presented on the first groundwater  
9 monitoring results from the J. T. Einoder site in  
10 Bloom Township, Cook County, Illinois.

11 And it concludes that: The data show  
12 exceedances of the Part 620 groundwater standards for  
13 three metals and eight semi-volatiles.

14 Now, this J. T. Einoder site, that's the  
15 Lynwood site that the Office of Attorney General is  
16 referring to.

17 MR. CLAY: That's correct.

18 MR. HENRIKSEN: And this is the same Lynwood  
19 site that accepted materials from 1997 to 2003?

20 MR. CLAY: Yes.

21 MR. HENRIKSEN: This specific time period is  
22 prior to Part 1100 rules being in effect?

23 MR. CLAY: That's correct.

24 MR. HENRIKSEN: And this is the same site

1 that accepted materials other than CCDD, according to  
2 Agency enforcement staff; correct?

3 MR. CLAY: Correct.

4 MR. HENRIKSEN: So the only test results the  
5 EPA has gathered showing exceedances of Part 620  
6 groundwater standards were generated from a prelaw  
7 site that took materials in addition to CCDD; correct?

8 MR. CLAY: Well, actually, the law at the  
9 time was that the CCDD had to be uncontaminated.

10 MR. HENRIKSEN: Thank you. Let me ask that  
11 question a little clearer. So the only test results  
12 the IEP has gathered showing exceedances of Part 620  
13 groundwater standards were generated from a site in  
14 existence prior to the Part 1100 -- Part 1100 rules  
15 were in effect; correct?

16 MR. CLAY: That's correct.

17 MR. HENRIKSEN: So none of the upfront  
18 controls that my members have to have to be lawful  
19 were in effect at that Lynwood site.

20 MR. CLAY: That's correct.

21 MR. WIGHT: You're just speaking as to the  
22 specific controls required under Part 1100 and not to  
23 what controls an individual might have placed on a  
24 facility in order to comply with the statutory



1 requirement?

2 MR. HENRIKSEN: That is correct. In this  
3 case, it evidently is not very rigorous.

4 Now, since you all began work on these Part  
5 1100 regulations, has your Agency's -- your Agency  
6 contacted other states or the USEPA regarding  
7 acceptance requirements for CCDD, how they regulate  
8 this material?

9 MR. NIGHTINGALE: I don't have a real clear  
10 answer for you on there. We did at one point do a  
11 search from some of the other states in what was being  
12 regulated and how it was being regulated, but we  
13 didn't come up with anything that was being -- or any  
14 programs where they were being regulated quite like  
15 Illinois.

16 MR. HENRIKSEN: So you're not aware of any  
17 states that require sites that accept CCDD to comply  
18 with the environmental controls contained within the  
19 Part 1100 regulations.

20 MR. NIGHTINGALE: That's correct.

21 MR. HENRIKSEN: And are you aware of any  
22 state that would require groundwater monitoring at a  
23 facility that accepts clean construction or demolition  
24 debris?

1           MR. NIGHTINGALE: We're not aware of that,  
2 but at the time, we were really searching to find out  
3 if anybody was regulating through a permitting  
4 process, so we never got past that point because we  
5 didn't really get ahold of anybody who was permitting  
6 them, so we didn't ask that next question on how you  
7 would regulate them.

8           HEARING OFFICER TIPSORD: Could I have a  
9 follow-up on that?

10           Does USEPA have any regulations for Clean  
11 Construction or Demolition Debris?

12           MR. NIGHTINGALE: Nothing that would be in  
13 conflict with what we've found.

14           MR. WIGHT: I believe that I considers  
15 construction or demolition debris waste, in general,  
16 but generally solid waste issues are a state issue  
17 under federal law, and consequently Illinois has gone  
18 well beyond anything you will find in federal law, to  
19 my knowledge, about how the materials should be  
20 managed.

21           HEARING OFFICER TIPSORD: And I think with  
22 this, we need to have you sworn in. You've made  
23 several factual statements, so --

24           MR. WIGHT: It's just a discussion of what I

1 believe the law is.

2 HEARING OFFICER TIPSORD: I still believe  
3 you would need to be sworn in at this point.

4 MR. WIGHT: All right.

5 (Mr. Wight sworn.)

6 MR. CLAY: I might clarify, too. I mean, as  
7 Mark said, USEPA, I believe, regulates CDD,  
8 construction demolition debris. That's different than  
9 CCDD, clean construction demolition debris, which is a  
10 definition in our Act.

11 MR. HENRIKSEN: Again, you're not aware of  
12 any other state that has taken it upon themselves to  
13 regulate Clean Construction Demolition Debris the way  
14 your Agency does; correct?

15 MR. CLAY: Correct.

16 MR. HENRIKSEN: Thank you.

17 MR. RAO: I have follow-up.

18 Do any other states have a subset of  
19 construction and demolition debris, like clean or  
20 uncontaminated debris, are you aware?

21 MR. NIGHTINGALE: It's been a while since  
22 we've looked at that. I'd have to go back and see  
23 what we might have found as far as how they were  
24 regulated.

1 I think, in general, they would regulate it  
2 as under the definition of construction and demolition  
3 debris, and so it would be a subset similar to like  
4 what we have, but most of them have separated it from  
5 construction and demolition debris.

6 MS. FLOWERS: We could find that out and  
7 follow it up, if that's what you would like.

8 HEARING OFFICER TIPSORD: We'd appreciate  
9 that.

10 And just for the record, too, any of the  
11 questions that we've asked today, if anyone wants to  
12 weigh in on, or if anyone has additional information,  
13 in final comments, we would really like for you to  
14 continue to provide that sort of information to us.

15 Mr. Sylvester.

16 MR. SYLVESTER: Just a quick question. Are  
17 you going to put those questions in a separate  
18 document or just pull them out from the testimony?

19 HEARING OFFICER TIPSORD: From the  
20 transcript.

21 MR. SYLVESTER: Would the Board put them in  
22 a document so that everybody could have an opportunity  
23 to review those questions or --

24 HEARING OFFICER TIPSORD: I mean, I don't

1 know that we really have something, other than what's  
2 going to be in the transcript. I mean, I can go  
3 through the transcript when it comes in and do that,  
4 if that would be helpful. I mean, that would be what  
5 I would do, but I'll do that, if that would be  
6 helpful. I can do that.

7 All right. I will put something together  
8 when the transcript comes in.

9 MR. SYLVESTER: I didn't mean to give you  
10 extra homework.

11 MR. TRAYLOR: A comment on any other states,  
12 if you will check the letter that was written to The  
13 Honorable Doris Karpel. On the second page, the  
14 second paragraph, it says -- this was written in 1992.

15 We also pointed out that Pennsylvania says  
16 uncontaminated soil, rock, stone, gravel, brick,  
17 block, concrete, and used asphalt, may be used as  
18 clean fill.

19 HEARING OFFICER TIPSORD: And that's Exhibit  
20 62.

21 Does anyone else have questions for the  
22 Agency?

23 MR. RAO: I have a few more questions.

24 I have some questions based on Mr. Huff's

1 testimony to kind of get a feeling for the way the  
2 Agency stands on some of the recommendations.

3 On page 6 of Mr. Huff's testimony, he states  
4 that in order to obtain samples representative of  
5 groundwater quality that are downgradient, including  
6 both horizontal and vertical directions, a minimum of  
7 eight monitoring wells would be required to be  
8 sampled.

9 Please comment on whether Mr. Huff's  
10 statement is consistent with the Agency's proposed  
11 groundwater monitoring requirements. If so, would the  
12 cost estimates provided by the Agency need to be  
13 revised to account for additional wells.

14 MS. BLAKE MYERS: Not necessarily. That's  
15 going to be on a site-by-site basis, and if you're  
16 talking both in the horizontal and vertical direction,  
17 it may be as few as four, and it may be more, but  
18 that's not something that could be determined ahead of  
19 time across the board.

20 MR. RAO: So what you have proposed in the  
21 estimates of cost that you have given accounts for  
22 obtaining samples representative of groundwater  
23 quality, that includes both horizontal and vertical  
24 directions?

1 MS. BLAKE MYERS: Both vertical and  
2 horizontal was taken into account. So yes, the answer  
3 would be yes, our cost estimates would still be  
4 appropriate.

5 MS. LIU: To follow up on Mr. Rao's  
6 questions, you mentioned that it would be based on the  
7 site particulars. Could you describe a site where  
8 four wells would be sufficient and a site where eight  
9 wells would be needed, geometrically speaking?

10 MS. BLAKE MYERS: Geometrically speaking, it  
11 would really speak to the size of the CCDD unit. The  
12 purpose of getting a groundwater monitoring system is  
13 to sample the groundwater and determine what's  
14 coming --

15 Well, usually beneath the facility in the  
16 case of CCDD units, they're not lined, so you're going  
17 to need to know what is affecting groundwater, and  
18 it's going to depend on the dimensions of the CCDD  
19 unit, it's going to be dependent on the uppermost  
20 aquifer and what its vertical extent is, and whether  
21 or not you need to screen wells and have nested wells.  
22 It's really going to be very site specific.

23 I don't know that I could give you a typical  
24 arrangement on a groundwater monitoring system because

1 I don't know that you could say that there is a  
2 typical CCDD unit.

3 MS. LIU: On page 4 of Mr. Huff's testimony,  
4 Mr. Huff recommends a PID response value of five parts  
5 per million to eliminate most false positives. Would  
6 the Agency please comment on whether you have any  
7 concerns regarding that recommendation?

8 MR. WIGHT: Can we do that in final  
9 comments, please?

10 MS. LIU: Of course.

11 MR. WIGHT: Thank you.

12 MR. RAO: Mr. Huff urges the Board to  
13 eliminate the restriction on uncontaminated soil with  
14 pH values about 9.0 since the limit has created  
15 problems for some of these generators of the CCDD in  
16 uncontaminated soil. Will you please comment on  
17 whether Mr. Huff's statement is -- wait. I'm reading  
18 the wrong question.

19 Please comment on whether the Agency has any  
20 concerns with revising or eliminating the upper pH  
21 limits for uncontaminated soil, based on recent soil  
22 testing conducted by the Agency.

23 MR. MORROW: Based on the recent sampling?

24 MR. RAO: Yeah, conducted by the Agency.



1 You presented some information from ten facilities.

2 MR. MORROW: Yeah. There was one sample

3 that had a high pH at one facility. There were no

4 exceedances of any -- maybe I should check that.

5 Well, I'll condition it. I don't believe there were

6 any exceedances of any MACs in that sample, so no.

7 The answer would be no.

8 MR. RAO: Okay. When you say the answer is

9 no, are you saying that the Agency has no concerns

10 about revising the limits, or are you just saying that

11 you haven't seen a lot of data that shows exceedance

12 of the pH level?

13 MR. MORROW: Well, I did find that

14 analytical result, and there were some exceedances;

15 however, we're concerned, as Mr. Huff, I think,

16 pointed out, we're concerned with two metals --

17 chromium and selenium -- and for that sample, there

18 were no exceedances for those parameters.

19 Does that answer your question, or do you

20 want to restate your question?

21 MR. RAO: Yes. I think the concern was the

22 upper pH limits of 9.0, whether the Agency has any

23 concerns with revising or eliminating that limit.

24 MR. MORROW: Well, excuse me.

1 MR. HORNSHAW: Tom Hornshaw.

2 One of the concerns with going above pH 9 is  
3 that we don't have pH specific migration data that we  
4 got from the USEPA documents for soil screening  
5 guidance, so we don't have any confidence in the  
6 behavior of a metal, once it gets beyond what the  
7 table designation shows. So the metal can be more  
8 mobile or less mobile in soil once you get beyond pH  
9 9, but we don't have confidence in answering that.

10 MS. LIU: Is there any way to find out what  
11 the MAC would be for numbers above 9.0?

12 MR. HORNSHAW: Not really.

13 MR. MORROW: Is there a modeling exercise?  
14 We've never done that.

15 MR. HORNSHAW: We haven't done that, no.

16 MR. RAO: Also, has the Agency received any  
17 information from these -- at least the permitted  
18 sites -- that they're having problems with this pH  
19 limit or rejecting loads?

20 MR. CLAY: We get a report on rejected  
21 loads. I don't know if that has increased, but we can  
22 review those and respond to that in final comments.

23 MR. RAO: That would be helpful.

24 MR. CLAY: But if the rejected loads have

1     been rejected solely for pH.

2                   HEARING OFFICER TIPSORD:    Could you also  
3     check?   Because one of the things that Mr. Huff talks  
4     about are false positives on the PIDs, and as long as  
5     you're going through that information, could you check  
6     and see if there are a lot of false positives coming  
7     back on the PIDs?

8                   MR. CLAY:    Yes.

9                   MR. WILCOX:   If I could just do a follow-up  
10    on that.  I don't think either of those questions will  
11    show up on the reports.

12                   When you have a false PID, sometimes they're  
13    just rejected, but on the pH for sure, that's  
14    pre-application.  That's when it's being submitted  
15    before it ever comes to the gates, but the pH  
16    rejections will not show up on the reports.

17                   HEARING OFFICER TIPSORD:   And as with the  
18    other questions, we do encourage anyone who might have  
19    additional information on those two subjects to please  
20    provide those to us in final comments.

21                   MR. CRAVENS:    Could I comment on the PID?

22                   HEARING OFFICER TIPSORD:    Uh-huh.

23                   MR. CRAVENS:    Because they mentioned five  
24    parts per million.

1           Typically, in health and safety plans for  
2 impacted sites that I've worked at, at five parts per  
3 million, we upgrade to air purifying respirators, and  
4 that's an automatic. We would put out respirators  
5 only at five parts per million. Since we don't know  
6 what those would be, we would automatically, out of  
7 concern for people working at the site, have an air  
8 purifying respirator. So if there's a guy monitoring  
9 at one of these CCD sites and you have five parts per  
10 million, they conceivably would have a health and  
11 safety plan and they'd have a respirator on at that  
12 point.

13           MR. GOBELMAN: I have a question. Steve  
14 Gobelman, IDOT.

15           Tom, you just confused me with your pH  
16 analysis, because prior in the R12-9, prior to when we  
17 put pH in as the 6.25 to 9, I believe the Agency's  
18 stance was that the pH value that we were going to use  
19 as the line in the sand was going to be at the lowest  
20 pH number; correct?

21           MR. HORNSHAW: You mean 6.25.

22           MR. GOBELMAN: 6.25. Before we put the pH  
23 in. There was no pH requirement, correct, of what was  
24 going to be allowed?

1 MR. HORNSHAW: As far as I remember, yes.

2 MR. GOBELMAN: But the analytical number  
3 that was going to go in to be used was at the most  
4 stringent pH value.

5 MR. HORNSHAW: Actually, we went to 4.5, I  
6 think.

7 MR. GOBELMAN: Whatever it was.

8 MR. WIGHT: I think went to the bottom of  
9 the table. It was a full table range.

10 HEARING OFFICER TIPSORD: One at a time. Go  
11 ahead.

12 MR. WIGHT: It was the full table range from  
13 the bottom of the table to the 9 point, which was the  
14 top of the table, and the most stringent value,  
15 whether the chemical was more mobile at the higher or  
16 the lower level.

17 MR. GOBELMAN: Correct.

18 MR. WIGHT: So yes, we defaulted to the most  
19 stringent level.

20 MR. GOBELMAN: And that table showed the  
21 most stringent.

22 MR. WIGHT: Yes.

23 MR. GOBELMAN: But now you're stating that  
24 if you're looking at -- since now there a pH

1 requirement that now is between 9 and 12.49, that  
2 there may be some indication, since we don't know  
3 anything, that now these parameters could be even more  
4 mobile than what you had previously prior to having a  
5 pH value in the system?

6 MR. HORNSHAW: That's possible.

7 MR. GOBELMAN: But, previously, we had no pH  
8 requirement, so we could have taken any pH value, and  
9 now you're saying that that was not a correct method  
10 back then even.

11 MR. HORNSHAW: I'm not sure how to answer  
12 that. When we put the bottom end of it, I think we  
13 had to put a top end, too. Was that the thinking?

14 MR. MORROW: We took the lowest value of  
15 that, of the table, and the table was bracketed by 9  
16 and 4.5.

17 MR. GOBELMAN: Right. And only two  
18 parameters got worse as pH went up; that was selenium  
19 and chromium.

20 MR. MORROW: Chromium. That's all we knew.

21 MR. GOBELMAN: Right. But under the  
22 previous proposal, we could have taken 11.5 pH soil,  
23 as long as it met the pH -- as long as it met whatever  
24 the most stringent pH number was.

1 MR. HUFF: That's the metals.

2 MR. GOBELMAN: Of the metals.

3 MR. MORROW: Correct.

4 MR. GOBELMAN: But now you can't do that  
5 because now magically somehow the analysis doesn't  
6 exist that determined that all of a sudden that lead  
7 is going to become highly leachable beyond at a pH of  
8 11.5 than it did at 4.25, because there's no data to  
9 support anything, and that doesn't make sense to me  
10 that on one hand, previously this is what you wanted,  
11 and now that range is, you know.

12 MR. WIGHT: Well, we went as far as we could  
13 go with the table that was available in TACO. If you  
14 recall, that was our starting place, is what are they  
15 doing in TACO and how can we translate that into the  
16 MACs in order to be protected. So we went as far as  
17 the available information took us.

18 Now the discussion has preceded beyond that,  
19 and we're more uncertain about that, and that's why  
20 the issue has arisen.

21 So I don't really see that as a  
22 contradiction. I just think it was -- I mean, we  
23 never anticipated there would be a pH limit. That was  
24 something that the Board added, so we didn't really

1 look into it that way.

2 MR. GOBELMAN: But you assumed at the time  
3 that you were putting those numbers together based on  
4 TACO that there isn't, therefore, a pH problem outside  
5 the TACO table for pH.

6 MR. WIGHT: Well, we had upper and lower  
7 limits, which are the hazardous waste limits. That's  
8 where we put the limit.

9 MR. GOBELMAN: But now you're stating that  
10 soil can be more leachable at a higher pH than it  
11 would show at 4.25.

12 MR. WIGHT: I think he's stating that he  
13 just doesn't know. It could be higher or it could be  
14 lower.

15 MR. GOBELMAN: I just wanted to state I'm  
16 confused on why it's a problem now but it wasn't a  
17 problem when the initial table was put in prior to the  
18 pH being in there.

19 MR. WIGHT: Okay. And I understand. It's  
20 because we didn't consider it in this context at that  
21 time.

22 MR. GOBELMAN: But it's a pH table.

23 MR. WIGHT: Yes. It stops at 9.

24 MR. GOBELMAN: Okay.



1 MS. GLOSSER: I have another question.

2 In Public Comment 65, the nature preserve  
3 center has provided additional information on Class  
4 III areas contributing to dedicated nature preserves  
5 along with CCDDs and USFOs located within a one-mile  
6 radius of dedicated nature preserves.

7 Further, INPC states that a setback outside  
8 of the contributing area of a Class III area similar  
9 to the well setback prohibition at Sections 1100.201  
10 and 11.500 would provide protection to dedicated  
11 nature preserves from fill operations.

12 In your responses, you said that that,  
13 indeed, would provide protection, but I was wondering  
14 if you'd comment on the Agency's position of adding  
15 this as a setback, whether you're pro or con of adding  
16 this as a setback in these regulations.

17 MR. COBB: Given that these are such large  
18 areas, quite a bit different than the prohibition  
19 small areas around wellheads, I think there might be  
20 some potential legal issues that were certainly looked  
21 at when we did the small setbacks, and I just don't  
22 think we have enough information in that area to have  
23 an opinion on that. These are large areas.

24 MR. WIGHT: Specifically, what he would be

1 referring to, legal issues, would be takings issues,  
2 restricting property, uses of which there's been a  
3 substantial amount of U.S. Supreme Court activity on  
4 that, much of it fueled by environmental regulation.  
5 So that would be something that probably would take  
6 quite a bit of research.

7 HEARING OFFICER TIPSORD: Are there any  
8 other questions for the Agency?

9 MR. WILCOX: One quick one.

10 The site that had an exceedance of pH, was  
11 that a CCDD permit site, or a clean fill site? And my  
12 follow-up to that would be, if it was a CCDD site  
13 where they normally take limestone and concrete, how  
14 are you able to test just the soil and not test the  
15 soil mixed in with the limestone aggregate?

16 MR. MORROW: The first part of your  
17 question, it was a CCDD facility. And the second  
18 part, I don't know.

19 MR. WILCOX: My follow-up is, I don't know  
20 from an enforcement action, how in a site that I've  
21 seen when they're bulldozing the dirt and the  
22 limestone and all the materials together, how do you  
23 go about testing the pH of that soil for compliance  
24 when it's all mixed together? I guess I'll just leave

1 that as the question.

2 HEARING OFFICER TIPSORD: Thank you.

3 I believe the Aggregate Producers have some  
4 witnesses they would like to put on, and I'll check to  
5 see if anyone else has signed up.

6 Let's take a couple of minutes while we do  
7 some switching around and come back in about five  
8 minutes.

9 (A brief recess was taken.)

10 HEARING OFFICER TIPSORD: I think we're  
11 ready to go.

12 Mr. Henriksen, would you like to introduce  
13 your witnesses?

14 MR. HENRIKSEN: Bret Hall and then Josh  
15 Quinn.

16 HEARING OFFICER TIPSORD: Okay.

17 MR. HENRIKSEN: I'm going to put on Mr. Bret  
18 Hall first, and then Josh Quinn with very similar  
19 testimony. I thought you ought to hear from people  
20 who run from CCDD operations for a living.

21 MR. WIGHT: We're having a hearing problem.

22 HEARING OFFICER TIPSORD: They can't hear  
23 you back there.

24 MR. HENRIKSEN: Yeah. Why don't we go over

1 there.

2 HEARING OFFICER TIPSORD: That way they  
3 won't have their backs to everybody.

4 MR. HENRIKSEN: No problem.

5 (Witness sworn.)

6

7 BRET HALL, called as a witness herein,  
8 having been first duly sworn, testified as follows:

9

EXAMINATION

10 BY MR. HENRIKSEN:

11 Q. Mr. Hall.

12 A. My name is Bret Hall. I work for Hanson  
13 Material Service. I've been involved in CCDD  
14 management for several of our facilities for  
15 approximately 13 years now. I went to school at  
16 Illinois State University. I graduated in 1994, and  
17 I've been involved in the environmental field ever  
18 since.

19 Q. Now, are you familiar with the Hanson  
20 Material Service CCDD site in Will County that's shown  
21 on Mr. Cravens' map?

22 A. Yes.

23 Q. And where is this site located?

24 A. It is on Route 53 and Taylor Road in

1 Romeoville.

2 Q. Okay.

3 A. But that's the entrance of our facility.  
4 The map's not entirely accurate at representing where  
5 the actual CCDD unit's located.

6 Q. Well, where -- so, but the map, Figure 1,  
7 purports to show the Hanson Material Service  
8 operation; is that correct?

9 A. Yes.

10 Q. Is that -- does the location of your site on  
11 the map, is that accurate?

12 A. No. No. The map itself represents our CCDD  
13 unit as being on the west side of the Des Plaines  
14 River, but the unit itself is actually on the east  
15 side of the river between the river and the canal.

16 Q. What distance are we talking about that's  
17 inaccurate?

18 A. It's the difference of approximately a  
19 quarter of a mile.

20 Q. Okay. And why is this difference in  
21 location of what's shown on their map and where you're  
22 actually shown, why is that of significance?

23 A. Well, there are several wells on the west  
24 side of Route 53 north of Airport Road, and the way

1 that the map is set out, it indicates that we're  
2 directly adjacent to these wells when, in fact, we are  
3 not.

4 Q. Okay. So the water wells shown on their map  
5 relating to your site are not accurately depicted; is  
6 that correct?

7 A. Correct.

8 Q. And you know that because you work there?

9 A. Correct.

10 Q. Okay.

11 HEARING OFFICER TIPSORD: A point of  
12 clarification. Are the wells not accurately  
13 portrayed, or is the facility not?

14 THE WITNESS: The facility itself. The  
15 location of the CCDD facility itself; correct.

16 BY MR. HENRIKSEN:

17 Q. So how far away are you actually from water  
18 wells that you might impact?

19 A. Oh, I would estimate just roughly about a  
20 half a mile.

21 Q. Now, you mentioned you've been involved with  
22 the implementation of CCDD well disposal at Hanson  
23 Material sites; correct?

24 A. Correct.

1 Q. And how long have you been doing that?

2 A. For approximately 13 years. I started with  
3 the company in July of 2000.

4 Q. And so you were involved in the  
5 implementation of CCDD before they were part of the  
6 1100 world; correct?

7 A. That's correct. We instituted best  
8 management practices in the industry prior to the  
9 development of the rules; and we did, in fact, use  
10 PIDs. We screened every load.

11 Also, as a best management practice, we  
12 performed due diligence in the field and on properties  
13 where we received the material from, so we do quite a  
14 bit of -- put a quite a bit of upfront work.

15 Q. And since the 1100 rules went into effect,  
16 did you also help implement those requirements?

17 A. Yes. I oversee that on a daily basis. I  
18 correct the soil certification; I make sure they're  
19 accurate. I also investigate or overview the  
20 analytical that's included on the LPC 663 reports, in  
21 addition to doing field instructions on every property  
22 we receive material from, regardless of which soil  
23 certification form is used.

24 Q. Do you have an opinion regarding the upfront

1 controls in place that are Part 1100, whether or not  
2 it provides adequate groundwater protection?

3 A. Yes. I think the way that they're  
4 implemented, you know, from my experience, they are  
5 quite adequate. We do pretty extensive due diligence  
6 work on each of the sites, as I said, in addition to  
7 site inspections ensuring that we have analytical  
8 data, and that analytical data does, in fact, meet or  
9 fall below the maximum level of concentrations for  
10 chemical constituents and uncontaminated soil.

11 Q. And your company does that to ensure that  
12 they comply with the Part 1100 rules; correct?

13 A. Correct.

14 Q. Now, we've talked about -- or there's been  
15 testimony about the costs of groundwater monitoring;  
16 correct?

17 A. Yes.

18 Q. Is there also concerns about liability for  
19 groundwater monitoring test results that might stem  
20 from pollution caused by off-site sources?

21 A. Yeah. In fact, I think that's not really a  
22 very tangible cost, but potentially it's of a much  
23 greater concern, even, than the upfront costs.

24 If there are contaminants, like you said,



1 that could be coming from off site, there's a  
2 possibility that we could have some sort of liability  
3 for that, and that's a significant concern.

4 Q. And that's part of why your company is  
5 concerned about having to install a groundwater  
6 monitoring regime?

7 A. That's correct. That's one of the concerns,  
8 yes.

9 Q. Because you might be held liable for someone  
10 else's pollution?

11 A. Correct.

12 Q. Something that you did not cause?

13 A. Correct.

14 Q. And it's something that you can't fix?

15 A. That's right.

16 Q. We've heard also from the EPA that disposal  
17 of CCDD in farm fields in naturally occurring  
18 depressions, that's not regulated by that agency;  
19 correct?

20 A. That's right.

21 Q. You have also heard testimony today  
22 concerning the Maclair Asphalt Agreed Order. It's  
23 their thinking that they also cannot regulate the  
24 disposal of CCDD in borrow pits; correct?

1           A.     Right.

2           Q.     Now, do you have a concern from an  
3     environmental standpoint regarding the unregulated  
4     disposal of CCDDs in farm fields?

5           A.     Oh, certainly. Sure. They could -- I mean,  
6     without the sort of controls that we are required to  
7     have at our permitted CCDD facilities, I don't really  
8     see how they could avoid some of the contaminants that  
9     we are able to, by implementation of the CCDD rules,  
10    our own policies, best management practices as well,  
11    that these places really don't have to follow at all.

12          Q.     And now, how about the disposal of CCDD in  
13    borrow pits? Do you have the same concerns?

14          A.     Oh, certainly. Sure. They not only -- I  
15    mean, those probably would be even a greater concern  
16    because they're aggregating the much larger quantity  
17    of material, especially with regards to Maclair  
18    Asphalt over a long period of time, too, so they have  
19    a potentially great quantity of material, all of which  
20    is largely unregulated.

21          Q.     So unlike farm fields and unlike borrow  
22    pits, you're looking at, or the EPA wants to impose  
23    upon your company, groundwater monitoring.

24          A.     Right.

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

2 HEARING OFFICER TIPSORD: Mr. Hall, just one  
3 more question about the location of the Hanson  
4 Material Service yard. It's on the other side of the  
5 Des Plaines River from where it's located.

6 MR. HALL: Correct. You can see on the map,  
7 it's almost -- it's directly adjacent to the Des  
8 Plaines River on the west, and a little further to the  
9 east, you'll see another bit of water. That's the  
10 sanitary and ship canal, and our -- the unit where we  
11 receive CCDD is between the river and the canal, so  
12 it's directly east of the river.

13 HEARING OFFICER TIPSORD: Okay. Thank you.  
14 Does anyone have any questions of Mr. Hall?

15 Thank you, Mr. Hall.

16 MR. HENRIKSEN: Josh Quinn.

17 (Witness sworn.)

18  
19 JOSH QUINN, called as a witness herein,  
20 having been first duly sworn, testified as follows:

21 EXAMINATION

22 BY MR. HENRIKSEN:

23 Q. Mr. Quinn.

24 A. My name is Josh Quinn. I am a Principal

1 Environmental Specialist for Vulcan Materials. I've  
2 been involved in the CCDD portion of the aggregate  
3 industry for approximately 12 years. I'm a graduate  
4 of Knox College, with a degree in Elementary Education  
5 and Environmental Science. I am also a graduate of  
6 North Central College with a Master's in Business  
7 Administration.

8 Q. And you're familiar with the Vulcan CCDD  
9 site in Will County?

10 A. Yes, I am. Part of my duties with Vulcan  
11 Materials, I'm responsible for compliance monitoring  
12 of all aspects of a permanent CCDD and registered  
13 uncontaminated soil fill only sites.

14 Q. And like Mr. Hall, who you've heard testify,  
15 you've also been involved in the development of  
16 industry best management practices to handle CCDD;  
17 correct?

18 A. That's correct.

19 Q. And also part of the process, the long  
20 process, to create and come into compliance with the  
21 Part 1100 rules; is that correct?

22 A. That's correct. It's my professional  
23 opinion that the upfront controls in place under Part  
24 1100 provide adequate protection to the environment.

1 Q. Now, in addition to -- we've heard, as I was  
2 also asking Mr. Hall, Mr. Quinn, we talked about the  
3 just financial costs of groundwater monitoring, which  
4 can be substantial, but does your company have also  
5 concerns about liability associated with putting in  
6 place a groundwater monitor regime?

7 A. Our concern stems from the fact that  
8 groundwater monitoring test results may not be  
9 indicative of our contribution through our CCDD or  
10 soil fill only operations.

11 Q. So the monitoring also might pick up  
12 contaminants from sites that have nothing to do with  
13 your operation?

14 A. There is that potential, and that is a  
15 concern of ours.

16 Q. Now, you've also heard about the -- and you  
17 may very well be aware of the ability in the State of  
18 Illinois to dump CCDD in farm fields without any  
19 regulation from the Agency, as long as the CCDD does  
20 not exceed grade; correct?

21 A. We feel that there is an elevated and  
22 concerning risk with the unregulated CCDD disposal in  
23 farm fields, or IDOT, county, or municipal borrow  
24 pits.

1 MR. HENRIKSEN: Thank you. No further  
2 questions.

3 HEARING OFFICER TIPSORD: Are there any  
4 questions?

5 MS. GLOSSER: I have a question. Related to  
6 the issue of farm fields depositing this material in  
7 farm fields or in borrow pits, do you think that there  
8 is a difference because of the volume of material that  
9 would be involved, that these borrow pits are smaller,  
10 than, say, a quarry might be, and so would it be the  
11 volume of material that would allow that to be exempt,  
12 as compared to what would be going into a quarry?

13 MR. HALL: Yeah, I could answer that.

14 I think that's probably one of the reasons.  
15 A typical quarry would be much larger, in general,  
16 than a borrow pit, although this Maclair pit, I don't  
17 really know the exact size of it, but that was pretty  
18 substantial.

19 Still, yeah, you're probably not going to  
20 approach the size and the volume that you would be  
21 able to use a CCDD for in a quarry.

22 MR. QUINN: May I also respond? I believe  
23 that even though the borrow pit may be smaller than a  
24 quarry or mined-out excavation of some kind, I still

1 feel that you have a lot of material that's ultimately  
2 going to go into that pit, and my experience in the 12  
3 years in the industry is that it takes a lot of time  
4 to manage the due diligence aspect of this, but it  
5 also takes a lot to fully train a staff to carry out  
6 all of these upfront controls and load checking  
7 procedures outlined in Part 1100.

8 So while the borrow pit scenario may be  
9 smaller than that of a quarry, the risk is still  
10 there, and without those controls in place, I believe  
11 there's, again, an elevated risk with that type of  
12 setup.

13 MR. GLOSSER: Thank you.

14 HEARING OFFICER TIPSORD: Are there any  
15 other questions? Mr. Wight?

16 MR. WIGHT: Yeah. Mark Wight, EPA.

17 I was just wondering if either of the  
18 witnesses might elaborate on why you think that with  
19 groundwater monitoring, you have elevated concerns  
20 that you would be tagged with contamination that  
21 you're not responsible for.

22 I mean, clearly, that's a tool that's used  
23 widely throughout the environmental area to identify  
24 groundwater monitoring contamination that comes from

1 sources, and yet you seem to be saying that your  
2 concern is that you will end up being responsible for  
3 contamination that you didn't cause.

4 Is there something different about your  
5 facilities that leads to that conclusion, especially  
6 in light of the provision in the rule that does allow  
7 you to demonstrate if the contamination is coming from  
8 background or upgradient of the fill operations.

9 MR. HALL: Well, I just -- I guess I'm kind  
10 of thinking about this from the standpoint of where  
11 our facilities are located. Some of them are in heavy  
12 industrial areas, and I think there's a greater  
13 potential, especially in those as it would be opposed  
14 to sand and gravel operations in a rural setting.

15 I guess I've just -- it's just a lingering  
16 concern of mine. Even though you said that there is  
17 the opportunity to demonstrate the background, I don't  
18 know how we would adequately do that, since it's all  
19 in-gradient. We are constantly pumping out water.  
20 It's always coming into our pit.

21 MR. WIGHT: Yeah. Well, the groundwater  
22 monitoring doesn't really apply until you've stopped  
23 the de-watering, so I don't think that would be a  
24 concern during the de- watering, but I know there



1 would be an equilibrium that would have to return  
2 before you could get accurate readings.

3 Anything more than that? I mean, you know,  
4 other facilities are located in industrial areas as  
5 well, and somehow that seems to get sorted out, so --  
6 I mean, other types of facilities, not just CCDD  
7 facilities. We rely heavily on groundwater monitoring  
8 to determine where contamination is coming from. It's  
9 true that it's not always easy to figure out, so.

10 MR. HENRIKSEN: Well, let me ask a follow-up  
11 question.

12 After these pits or quarries are filled in,  
13 okay, you know, will it then make a difference? You  
14 know, there is a time where the groundwater monitoring  
15 might be, you know, suspended where you can -- where  
16 this in-gradient aspect is taken into account, but  
17 there does come a point where this hole in the ground  
18 is filled; correct?

19 MR. HALL: Yes. There could potentially be  
20 that.

21 MR. HENRIKSEN: And in fifty years, a  
22 hundred years from now, somebody would have to be  
23 there to make sure that this monitoring picks up;  
24 correct?

1 MR. HALL: Sure, right.

2 MR. WIGHT: I think it's three years. You  
3 have to have three years without exceedances, and then  
4 you can close the facility.

5 MR. HENRIKSEN: The problem is, the  
6 facility, or some of our facilities, may not have to  
7 be filled for fifty or a hundred years, and that three  
8 years may not start for half a century, and the  
9 problem is, that's the concern is that these guys have  
10 to maintain this level of due diligence for 25 years,  
11 50 years, or longer, versus as opposed to the people  
12 that don't want to pay tipping fees, or like to  
13 dispose of the stuff in a borrow pit. Once it's  
14 deposited, they're gone. There's no due diligence.  
15 There's no post-dumping monitoring at all, and that's  
16 what we're -- that's part of the concern that we have,  
17 you know, creating for our industry a cradle-to-grave  
18 liability for something, and they pull in something 25  
19 or 50 years from now that we did not create and we  
20 can't fix, as opposed to the fact that the -- the  
21 state has elected to go after us and is not going  
22 after this totally unregulated disposal of CCDD in  
23 rural areas, and now the very lightly regulated  
24 disposal of CCDD in the borrow pits that dot this

1 state in hundreds and thousands.

2 HEARING OFFICER TIPSORD: And Mr. Henriksen,  
3 with that, we need to have you sworn in.

4 MR. HENRIKSEN: Thank you.

5 (Witness sworn.)

6  
7 JOHN HENRIKSEN, called as a witness herein,  
8 having been first duly sworn, testified as follows:

9  
10 MR. WIGHT: Well, given the fact that the  
11 legislature has created these inconsistencies, I mean,  
12 what would you have the Board do?

13 It's your point that you shouldn't be  
14 regulated to any greater extent than facilities that  
15 the legislature created exemptions for; that if not  
16 everyone is required to do it, then no one should be  
17 required to do it? Or where do we go in light of what  
18 the legislature has stated?

19 MR. HENRIKSEN: And that's an excellent  
20 question, and here's what I think.

21 First off, uncontaminated soil fill  
22 operations, the General Assembly specifically did not  
23 mention groundwater monitoring, and they did that for  
24 a reason. It was not the intent of the General

1 Assembly to mandate groundwater monitoring for  
2 uncontaminated soil fill operations. That's the first  
3 point.

4 The second point, for CCDD, our industry can  
5 accept, it will accept, upfront controls that these  
6 professionals implement to make sure that groundwater  
7 is not impacted so they don't pollute. We could  
8 accept that. But to then layer upon that the  
9 groundwater monitoring, is just is that area that we  
10 think is totally unacceptable. It's unacceptable for  
11 us to add something additional to our industry that  
12 might drive us out of business to make these guys quit  
13 taking this, because if you look at the list of CCDD  
14 sites, they're not increasing, they're declining.

15 The material was deposited at the Maclair  
16 Asphalt site because downstate Illinois has few, if  
17 any, CCDD sites. That's why it was picked.

18 What I'm suggesting is, the more you tighten  
19 up on our industry beyond the due diligence that we've  
20 put in place that we've shown does not cause  
21 groundwater monitoring, or at least you all can't show  
22 causes the groundwater contamination, the more you go  
23 beyond what we believe is reasonable, you get to the  
24 point where we have to make good business decisions

1 that we have to get out of business. And then this  
2 material is still going to be generated. It will go  
3 to the solid waste facilities, and they'll make money.  
4 That's fine. They're in business to do that. They do  
5 a good job. But it will also go to farm fields,  
6 forest reserve districts. There's lots of places that  
7 have taken this stuff over the years, and now it's  
8 going to go to borrow pits.

9 What's interesting about the Maclair Asphalt  
10 case, that was a borrow pit that wasn't created for  
11 that project that the CCDD was coming from. That was  
12 a borrow pit that was created 40 years ago when the  
13 interstates were first constructed that was around  
14 that was available.

15 What I'm concerned about -- and, Mr. Wight,  
16 you've raised some really good questions from a policy  
17 standpoint -- I think the EPA and the Board has to put  
18 reasonable requirements on us, and we're telling you  
19 that the Part 1100 rules, they do a darn good job  
20 making sure we don't have exceedances of groundwater,  
21 and I think the test results that are out there show  
22 that. That's enough. But you start going beyond that  
23 and putting regime on us that would cause some of our  
24 people to just walk away, which the policy decision is

1 that's a bad decision because that leaves the field  
2 open to folks that don't care so much, because IDOT  
3 does a very good job of doing what they do, making  
4 sure that material that goes in the hole is clean, but  
5 that's just IDOT. If you have a hole that goes in the  
6 ground, I mean -- excuse me -- CCD that goes in the  
7 ground, you know, that does not have upfront  
8 monitoring, that does not have groundwater monitoring,  
9 you have absolutely no assurance that the groundwater  
10 is going to be protected, and that's a concern to  
11 these gentlemen as environmental professionals, and  
12 it's concern me as an industry representative that I  
13 see this universe, a small universe of sites, that  
14 have an enormous regulatory burden on them, a burden  
15 that's not reflected in any state in the nation, yet  
16 the EPA wants to add another burden to our load, and  
17 that's -- I know I've gone on a bit, but I feel  
18 passionate about this. I've been involved with this  
19 issue, just like these gentlemen, from the beginning,  
20 almost as long as Marvin Traylor, and we feel strongly  
21 that the Part 1100 regulations are enough. They  
22 protect the environment. They assure that groundwater  
23 does not get contaminated, and I'm very serious about  
24 the concern about my industry for the segments of my

1 industry walking away and then taking away -- leaving  
2 it to maybe two or three CCDD sites in northern  
3 Illinois, and that's it. That's what we're faced with  
4 here and it's real.

5 HEARING OFFICER TIPSORD: Are there any  
6 other questions?

7 MR. SYLVESTER: This is just more of a  
8 procedural thing. You brought up questions with  
9 reference to Maclair Asphalt case, and I didn't know  
10 if somebody had answered that or not.

11 MR. HENRIKSEN: Well, that was brought up  
12 and I submitted that. That was attached to the record  
13 as, I believe, Board Exhibit -- that was the exhibit  
14 that was with regard to the Maclair Asphalt case. I  
15 neglected it. It fell off my pleading. I filed it,  
16 and that's one of the reasons I submitted it to the  
17 hearing.

18 HEARING OFFICER TIPSORD: It's Exhibit 65.

19 MR. HENRIKSEN: Exhibit 65.

20 MR. SYLVESTER: Thank you.

21 HEARING OFFICER TIPSORD: Are there any  
22 other questions?

23 Okay. Let's go off the record for just a  
24 moment.

1 (Off-the-record discussion.)

2 After discussion off the record, the comment  
3 period will close on August 1st.

4 I will -- when we get the transcript, I will  
5 go through the transcript and put together the  
6 questions that the Board has asked that we would like  
7 to see all of you comment on, or provide comments  
8 where you would like to; and, of course, as always,  
9 please, any information you can give us that will help  
10 us make our decision, we'd greatly appreciate it.

11 Is there anything else? I want to thank you  
12 all and I apologize. I thought we'd be done by 2:00  
13 or I wouldn't have gone without lunch, but thank you  
14 very much, and we're off the record.

15 (End of Proceedings.)

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1 STATE OF ILLINOIS )  
2 COUNTY OF MACON ) SS

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4 I, LISA K. HAHN, do hereby certify that I am a  
5 Certified Shorthand Reporter and Notary Public in the  
6 State of Illinois and that I reported in shorthand the  
7 foregoing, taken on the 20th day of May, 2013, and that  
8 the foregoing is a true and correct transcript of my  
9 shorthand notes so taken.

10

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12

*Lisa K. Hahn*

Notary Public -- CSR, RMR  
CSR #84-2149

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