

IN THE MATTER OF:)
PROPOSED AMENDMENTS TO)
CLEAN CONSTRUCTION OR) R12-9
DEMOLITION DEBRIS FILL)
OPERATIONS CCDD 35 ILL. ADM.)
CODE 1100)

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STATE OF ILLINOIS
Pollution Control Board

REPORT OF THE PROCEEDINGS held in the

above entitled cause before Hearing Officer Marie
Tipsord, called by the Illinois Pollution Control
Board, taken by Steven Brickey, CSR, for the State
of Illinois, 100 West Randolph Street, Chicago,
Illinois, on the 14th day of March, 2012,
commencing at the hour of 10:00 a.m.

A P P E A R A N C E S

MS. MARIE TIPSORD, Hearing Officer
MR. THOMAS E. JOHNSON
MR. THOMAS HOLBROOK
MR. ANAND RAO
MS. ALISA LIU
MS. DEANNA GLOSSER

PUBLIC BUILDING COMISSION OF CHICAGO
BY: MS. CLAIRE MANNING
MR. WILLIAM INGERSOLL
DR. WILLIAM ROY
50 West Washington Street
Suite 200
Chicago, Illinois 60602
(312) 744-3090

REPORTED BY:

Steven J. Brickey, CSR
CSR License No. 084-004675

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

8 With me today to my immediate
9 left is Board Member Deanna Glosser, the presiding
10 board member. To my immediate right is Chairman
11 Thomas Holbrook. To his right is Board Member
12 Thomas Johnson. To my far left or to the left of
13 Member Glosser is Anand Rao and Alisa Liu of our
14 technical unit.

15 This is day two. We adjourned a
16 little early today and started again this morning.
17 Dr. Glosser?

18 MS. GLOSSER: I just want to welcome
19 everyone again and thank everyone for
20 participating in this rulemaking process. It will
21 help to make a better rule.

22 MS. TIPSORD: Thank you. And for
23 those of you who heard this yesterday, I
24 apologize, but for the record I need to repeat.

1 The purpose of today's hearing is twofold. We
2 will hear the remaining testimony from the
3 participants and the second purpose of today's
4 hearing is to satisfy the requirements of Section
5 27(b) of the Environmental Protection Act.

6 Section 27(b) of the act
7 requires the Board to request the Department of
8 Commerce and Economic Opportunity, DCEO, to
9 conduct an Economic Impact Study on certain
10 proposed rules prior to the adoption of those
11 rules. If DCEO chooses to conduct the Economic
12 Impact Study, DCEO has 30 to 45 days after such
13 request to produce a study of the economic impact
14 of proposed rules.

15 The Board must then make the
16 Economic Impact Study or DCEO's explanation for
17 not conducting the study available to the public
18 at least 20 days before a public hearing on the
19 economic impact of the proposed rule.

20 In accordance with Section 27(b)
21 of the act, the Board requested by letter dated
22 August 4th, 2011, that DCEO conduct an Economic
23 Impact Study for this rulemaking. On September
24 28th, 2011, the Board received a response from

1 DCEO indicating that no Economic Impact Study
2 would be performed. A copy of DCEO's letter as
3 well as the Board's request are available here at
4 the front of the room. Some of you have already
5 commented on at a prior hearing or in your
6 pre-filed testimony on DCEO's decision, but we
7 will accept additional comments on DCEO's decision
8 at the end of the hearing today. We also had an
9 opportunity to close the hearing yesterday and no
10 one commented yesterday.

11 The pre-filed testimony that we
12 have remaining is that of Dr. William Roy and
13 Claire Manning on behalf of the Public Building
14 Commission of Chicago. After you're sworn in, the
15 pre-filed testimony will be marked as an exhibit
16 and taken as if read. We will then go to
17 questions. As there have only been pre-filed
18 questions from the Board, if you have a series of
19 questions for the witness, please let me know and
20 you can move to the front so we can better hear
21 you. Anyone may ask a question today. However, I
22 do ask that you raise your hand, wait for me to
23 acknowledge you. After I've acknowledged you,
24 please state your name and whom you represent

1 before you begin your question.

2 Please speak one at a time. If
3 you are speaking over each other, the court
4 reporter will not be able to get your questions on
5 the record. Please note that any question asked
6 by a board member or staff are intended to help
7 build a complete record for the Board's decision
8 and not to express any preconceived notion or
9 bias. At the close of the hearing today, we will
10 set a final comment deadline for the end of the
11 first notice comment period. Are there any
12 questions? Okay. With that, can we have the
13 witness sworn in and then Ms. Manning I'll turn it
14 over to you.

15 MS. MANNING: Thank you.

16 WHEREUPON:

17 CLAIRE MANNING AND WILLIAM ROY
18 called as a witnesses herein, having been first
19 duly sworn, deposeth and saith as follows:

20 MS. TIPSORD: Ms. Manning?

21 MS. MANNING: Thank you, Madame
22 Hearing Officer, Chairman Holbrook and Members'
23 Johnson and Glosser and scientific unit Rao and
24 Liu.

1 I'm very pleased to be here
2 today to talk to you about a rulemaking of very
3 much importance to my client, the Public Building
4 Commission of the City of Chicago. The Public
5 Building Commission of the City of Chicago is very
6 much like those of you who are similar with CDB in
7 Springfield. It really controls all public
8 building in the City of Chicago. Before I begin
9 and introduce Dr. Roy, I want to introduce a
10 couple of people who are here today on behalf of
11 the city Lee Ann Thomas-Foster is the
12 environmental officer for the Chicago Public
13 Building Commission. To her left is Dan Cooper.
14 Dan is from the Chicago Park District. The
15 Chicago Park District, along with the Chicago
16 Police Department, along with the Chicago Public
17 Schools are all clients of the Public Building
18 Commission in terms of building in the City of
19 Chicago. And this rulemaking is very important to
20 these entities and to the city as -- as I was
21 involved in the legislative effort as well to get
22 this rule to the Board for the very reason that
23 the cost -- the very real cost of excavating dirt,
24 if you will, and CCDD, if you will, that has not

1 been impacted by any specific release, but just is
2 general to an urban environment to the City of
3 Chicago there is a very real cost to having to
4 landfill that particular excavated dirt as opposed
5 to having to allowing -- being allowed to treat
6 this as CCDD and I think in my testimony I called
7 out the idea that the Public Building Commission
8 currently has 20 ongoing projects and the
9 difference between taking excavated soil from
10 those products -- the projects -- excuse me --
11 from a CCDD facility it could cost \$20.6 million
12 the estimators estimate to take that soil to a
13 landfill where it would cost \$5.7 million to take
14 that same excavated soil to a CCDD facility.

15 So you -- you can see in terms
16 of the economic impact, the economic impact is
17 very real. Now, I also appreciated Mr. Cobb's and
18 the EPA's good work on this particular rulemaking
19 and the Board's as well in terms of the first
20 notice. It's obvious you've been paying attention
21 to all of these issues. You did a really good job
22 in terms of getting the issues before us in first
23 notice and what our major concern that we're going
24 to talk about today and why we brought Dr. Roy

1 while my client has deferred to the EPA's position
2 on that particular definition of uncontaminated,
3 we need a much more real science based definition.

4 So in my mind that the
5 legislature recognized that we need a risk based
6 approach to the definition of uncontaminated when
7 you're talking about uncontaminated soil going to
8 a quarry is a very real thing that we accomplish
9 by the legislature and if you look at the
10 legislative testimony you can tell that. I think
11 Representative Tryon says that what we've learned
12 in this process is not all dirt is created equal
13 and Representative Fortner who, himself, is a
14 scientist, he works at the Fermilab, he basically
15 indicated that let the experts decide what
16 uncontaminated ought to be.

17 So really what happened with
18 this legislation is we threw it to the Pollution
19 Control Board to make the right call in terms of
20 what uncontaminated means in the context of
21 bringing excavated soil and excavated CCDD to a
22 quarry and, again, that's why we brought Dr. Roy
23 forward to give us some indication in terms of the
24 science issues related to dirt in a quarry

1 environment and that sort of thing.

2 So the other person I didn't
3 introduce to you today is Bill Ingersoll is with
4 me here today. Bill recently joined our firm and
5 many of you know he was an attorney with the EPA
6 for many years. Just recently, as I did, he
7 retired as well from state government and now he
8 and I are working together on environmental
9 issues.

10 So I'm happy to have Bill with
11 us as well and he is going to kind of walk Dr. Roy
12 through his testimony and we've already been sworn
13 so I'm going to leave it to Dr. Roy.

14 MS. TIPSORD: Before we do that,
15 could we enter your pre-filed testimony?

16 MS. MANNING: Sure. Do you want to
17 give me the number?

18 MS. TIPSORD: Yes, we'll mark
19 Dr. Roy as No. 50.

20 MS. MANNING: Okay.

21 MS. TIPSORD: And yours will be
22 No. 51. Do you have a clean copy for me?

23 MS. MANNING: I apologize. I don't.

24 MS. TIPSORD: If there is no

1 objection, we will mark the pre-filed testimony of
2 Dr. William Roy as Exhibit No. 50. Seeing none,
3 Dr. Roy's testimony is No. 50. If there is no
4 objection, we'll mark the pre-filed testimony of
5 Claire Manning as No. 51. Seeing none, it's
6 Exhibit No. 51. Go ahead.

7 MR. INGERSOLL: I'd like to
8 introduce Dr. William Roy. He is with the
9 Illinois State Geological Survey and he is a
10 professor at the University of Illinois. We're
11 going to ask Dr. Roy to lead us through his
12 testimony. Not read all of it, but give us
13 some -- walk us through with a summary and then
14 make him available for questions when he finishes.

15 MR. ROY: Good morning, everyone.
16 I've been with the Geological Survey for 32 years
17 now and I've been interacting with the Illinois
18 EPA off and on. Rick Cobb and I we go back, I
19 think, to the early '90s, maybe the '80s, when we
20 were applying TACO to come up with soil cleanup
21 objectives for pesticides for point sources with
22 AgCam dealerships and I've been interacting with
23 them long enough now that I'm seeing people I know
24 retire from the IEPA.

1 So when this was all brought to
2 my attention, I read a large stack of documents
3 and among the first things that I noticed was a
4 lack of science. So what I wanted to do was
5 prepare a testimony using my background and try
6 and put on paper things that I thought would be
7 useful to you in making this decision. I'm
8 primarily in research. So I tried to put as much
9 research into coming up with a useful document for
10 you guys as time would allow.

11 For starters, when I first
12 became aware that we had proposed a pH of 4.5 to
13 4.74 as where to begin, I was really confused. I
14 thought I misunderstood. Maybe -- I totally
15 didn't understand it because we're in Illinois and
16 then I realized, no, they're serious. They're
17 serious. So that was the first thing I wanted to
18 do was try and make you aware that soils don't
19 have a pH literally. It's a reaction pH. You
20 take the solid mass, you mix it with water and
21 what you're getting is the consequence of a bunch
22 of chemical reactions which produce that pH. So
23 the mineralogy of that solid phase is what
24 dictates what number you get. So what I tried to

1 do in Table 1 was to put down ranges in pH and why
2 you would have such things like if you have a soil
3 that yields a pH of 2 -- between 2 and 4 you're
4 probably talking about the oxidation of sulfide
5 minerals. Fool's Gold if you will. That would
6 yield that kind of sulfuric acid.

7 MS. TIPSORD: Dr. Roy, I apologize.
8 But, for the record, Table 1 is part of Exhibit 50
9 and it is on about page five. Numbered page five.

10 MR. INGERSOLL: Correct.

11 MR. ROY: So if you have something
12 like a pH 3, you've probably got some sulfide
13 minerals present. That would be a soil that you'd
14 collect from a mine, a coal mine scenario. If you
15 have a pH of 4 with a -- or a 5.5 you're really
16 talking about the insolence of exchange of
17 aluminum. At least some sort of aluminum
18 hydroxides or iron hydroxides which would give you
19 those kinds of acidic pH's.

20 I think previously participants
21 said yesterday that most of the soils in Illinois
22 aren't that kind of soil. These are the kinds of
23 soils that you find in like Georgia and South
24 Carolina and so forth where you have these nice

1 reddish colored soils. You put those with water
2 and you'll get a pH of 4.3, 4.4, but that's
3 consistent with the mineralogical composition of
4 those soils. We don't have those kinds of soils
5 here.

6 We have very few soils. I think
7 one participant mentioned, rightly so, that what
8 some people call organic soils such as bogs and
9 fens and so forth some of those can contain large
10 concentrations of organic acids that will yield
11 rather acidic reactions, but the numbers I read
12 here recently the distribution of those kinds of
13 soils in Illinois is less than five percent. I
14 don't think that's really what you're talking
15 about as far as CCDD. They're out there, but
16 really you see more bog soils in Michigan and
17 Wisconsin which yield those kinds of pH's.

18 So that was kind of the first
19 thing I wanted to put into my document here. The
20 second thing I wanted to -- that I thought would
21 be useful to you is a statewide survey that --
22 this is a report. It's on my desk. I'm reviewing
23 it right now. Where we had pH data from most of
24 the counties, I think all of the counties in

1 Illinois, and the median pH of all of those was
2 6.64 with a mean of 6.4 and I thought it was very
3 timely for that report to come to my desk and be
4 able to share that with you.

5 Now, certainly, it's not 4.5.
6 We don't have that kind of material here really.
7 The second thing I wanted to note or something
8 else I want to say. The word soil has different
9 meanings. I think to an agronomist the soil
10 refers to the horizonation, A horizon, B and C
11 horizon where they're trying to grow crops. I
12 think with CCDD we're talking about it as far as
13 an engineer's perspective. It's all the
14 unconsolidated material, which can be considerably
15 deeper if you're excavating this material for a
16 school or a bridge or something like that. So I
17 think probably for what we're doing here we'll
18 just say soil is all the uncontaminated material,
19 but I think it's good to acknowledge that a lot of
20 this data is for that upper A/B horizon because
21 that's where the most interest is because that's
22 interested -- most relevant for crop yields and
23 that sort of application whereas I think here
24 we're going deeper. That's why I put in the

1 information on Table 2.

2 In Table 2, I found pH data down
3 to a depth at least four feet and as you can see,
4 you've got more acidic pH's at the surface and
5 becomes progressively more alkaline. That's
6 because as you go down with depth, you're becoming
7 increasingly carbonate rich. You're getting the
8 occurrence of calcium carbonate which is going to
9 maintain a pH -- the equilibrium pH of calcium
10 carbonate is 8.2. So it's trying to be even
11 greater than 7 with depth.

12 So, again, we're a long way from
13 that acidic 4.5. If you look here, the surface
14 samples some of them were between 6.9, 6.2, but,
15 again, this is consistent with the mineralogical
16 composition of the kind of soils we have here in
17 Illinois. So that was something else I wanted to
18 bring out that I think as you excavate deeper
19 you're going to have even more alkaline pH's
20 greater than 7 because you get lower -- deeper and
21 deeper. You get into till, cultivation till, that
22 is less leached and you have the greater
23 likelihood of having calcium carbonate available
24 to buffer the pH of the system. From there, what

1 I tried to create was I tried to summarize the
2 chemistry of three constituents, which seemed
3 really relevant to what we're talking about here
4 and I chose arsenic, lead and benzopyrene.

5 Those three represented I think
6 a lot of diversity in soil chemistry. Arsenic
7 being an anion that is not prone to be controlled
8 by the precipitation of solid phases. Lead being
9 primarily a cation in groundwater. It is strongly
10 controlled by the solubility of lead containing
11 solid phases and benzopyrene being a hydrophobic
12 constituent. Something that is not very soluble
13 in water and has a strong tendency to be sorbed by
14 soil organic matter. Let me back up a bit.

15 Endemic to each of these is
16 their chemical fate. Their environmental fate.
17 Each of these can be sorbed or retained by soil
18 organic matter or the clay particles, which make
19 up soils. This is referred to as sorption. They
20 can also be desorbed. That is the reaction goes
21 the other way. If the concentration of each of
22 these in solution becomes less, say by groundwater
23 dissolution, then they can desorb and go back into
24 solution. When we apply things like TACO, we're

1 assuming that sorption/desorption reaction is
2 completely reversible. And it's not just TACO.
3 All models do that because it's the mathematical
4 necessity of doing so. To do otherwise, the math
5 is very complicated.

6 So that's kind of one thing to
7 point out is these numbers generated from TACO are
8 going to be conservative just because of that.
9 We're not allowing for -- we're assuming
10 desorption is completely reversible when
11 experimentally we know it's not. I've got some
12 examples of that in a little bit. For example, I
13 don't think TACO takes into account when lead
14 precipitates as a solid phase. Then its
15 dissolution behavior is not based on
16 sorption/desorption, but a whole bag of chemistry,
17 which I don't think TACO takes into account.

18 I think what we do with TACO is
19 we take that total concentration, plug it into a
20 formula and we go from there. We've got these
21 other chemical considerations, which makes the
22 outcome conservative. They're built in safeguards
23 if you will. What else?

24 I also tried to put in a few

1 studies. Let's see. Figure 1 I thought was kind
2 of interesting, too. This shows lead desorption.
3 That is lead that has been bound by, in this case,
4 a clay mineral as a function of pH. You can see a
5 pH 1, which would be darn acidic, you have 100
6 percent desorbibility. It all comes off.

7 As you can see in the graph as
8 you get up to a pH of about 5, that decreases to
9 less than 20 percent and we understand that now.
10 Now, if we talk about what is a good pH for
11 Illinois soils, 6ish shall we say, you can see
12 that the proportion of lead that will likely
13 desorb is much less than 100 percent whereas TACO
14 assumes it's a hundred percent. That's why I say
15 the TACO results are going to be inherently
16 conservative.

17 Benzopyrene. We chose -- I
18 chose that because I thought it was a good
19 representative of the pH's that you are all
20 concerned with. These things are not very water
21 soluble. Parts per billion in a lot of these
22 cases. Because of their lack of solubility they
23 can be strongly sorbed by soil organic matter.
24 This is expressed as the organic carbon partition

1 coefficient, which I give you here and for
2 benzopyrene it's anywhere from 270,000 to over a
3 million. So it has a strong tendency to be bound
4 by soil organic matter and as I will show in a
5 little bit that sorption -- absorption of that
6 constituent, too, is not very reversible. Once it
7 is sorbed it may not come off again. And we think
8 a lot of it has to do with the molecule will
9 actually defuse into the organic matter and the
10 game is changed. It won't come out into solution,
11 but, again, TACO doesn't do that. It assumes it
12 is completely reversible as we allow it to flow in
13 the system under study.

14 So that's something that needs
15 to be taken into account, I believe. The next
16 stage I was looking for information on CCDD.
17 Leaching studies, chemical composition. Anything.
18 I couldn't find anything. I tried umpteen
19 different search strategies. I found nothing for
20 Illinois, which really surprised me that you are
21 all trying to accomplish something important here
22 and you're doing it with almost no data. I was
23 puzzled by that, but I did find some studies that
24 were conducted in other states that apparently are

1 ahead of us. Particularly, in Florida. What I
2 tried to do I put into my document most of those
3 studies that I thought would be helpful for you.
4 For example, I found one study where they had
5 looked at the leaching behavior of pyrene, which
6 is, again, a hydrophobic constituent and they
7 found that the concentration of pyrene in some C
8 and D samples is what they call it in Florida was
9 between about 6 and about 19 mg/kg and they did
10 some laboratory extractions and they could only
11 find between 0 and half a percent would leach.
12 Well, that makes sense because probably it's
13 irreversibly bound by the soil organic matter.
14 It's not going to come out in the solution, but I
15 thought that was a good find. They concluded that
16 organic chemicals in their C and D debris really
17 was not a concern. So whereas we haven't done
18 that kind of work in Illinois, I thought one of
19 the things I could do is bring this to your
20 attention that at least some other states have
21 done some studies that I thought would be helpful.
22 That same research group looked at inorganics and,
23 let's see here, they use the synthetic
24 precipitation leaching procedure.

1 Again, this is another
2 laboratory basic extraction procedure. It's kind
3 of the same genre as the TCLP and one thing I
4 noticed was the initial pH of their solution was a
5 little aggressive. It was 4.2. But the pH's of
6 the extracts at the conclusion of the experiment
7 were between 6 and 10.

8 In other words, the soils
9 neutralized acidity, which makes sense. That even
10 if you did have some acidic media in CCDD it's
11 going to be neutralized by these other
12 constituents that we have in Illinois soils and
13 they showed it here.

14 Some results from that study are
15 given in Table 2. The one thing I wanted to point
16 out is lead. They found 92 mg/kg in the matrix,
17 but in the extract less than 0.01 mg/L because
18 lead is not soluble at neutral pH's. They
19 couldn't measure it. That makes sense. Any time
20 there is carbonates present, lead is going to be
21 relatively insoluble. It will be in the parts per
22 billion range. Very difficult to measure. Very
23 difficult to detect. And in this particular case,
24 they couldn't.

1 MS. TIPSORD: Dr. Roy, I apologize
2 for interrupting you yet again, but you have two
3 Table 2's in your testimony. So when you refer to
4 Table 2, in this instance, you're referring to
5 Table 2 elemental compensation in C&D samples and
6 laboratory extracts --

7 MR. ROY: Yes, ma'am.

8 MS. MANNING: -- from Townsend, et
9 al, 2004, correct?

10 MR. ROY: Yes.

11 MS. TIPSORD: Thank you.

12 MR. INGERSOLL: I will admit blame
13 for the formatting boo boo's in this document.

14 MS. TIPSORD: Not a problem. I just
15 realized it as I was looking back at the tables.

16 MS. MANNING: Thank you, Madame
17 Hearing Officer.

18 MR. ROY: Let's see. Another thing
19 that seemed to be missing was putting -- if we're
20 putting CCDD into a quarry was the influence of
21 the quarry rocks, the limestone. The groundwater
22 -- groundwater equilibrium of calcium carbonate,
23 which is the major constituent of limestone, is
24 about at a pH of 8.2 and that didn't seem to be

1 taken into account, but, again, you have the
2 sources of things that aren't acidic that would
3 help immobilize things like lead and zinc and
4 copper and a lot of other elements and that seemed
5 to be missing from the discussion here.

6 The next topic that seemed like
7 I could help was on the topic of urban soils. I
8 tried to compile a lot of information for you on
9 what I could find about urban soils, but I
10 enjoined the quote from a publication that you
11 have in your list now that elevated heavy metal
12 concentrations are almost universally reported in
13 urban soils. I found a textbook called urban
14 soils. I may get it yet. I haven't yet.

15 But there's a whole school of
16 thought that has already thrown a lot of attention
17 at the chemical composition of urban soils and yet
18 I had the impression that we were trying to use
19 criteria for CCDD that was not based on urban
20 soils. It wasn't taking into account that, I'm
21 sorry, since the glacier brought the stuff, we've
22 lived here a long time and we have these
23 anthropogenic emissions. And what I tried to put
24 in Table 3, I hope there's only one of those, lead

1 concentrations near large cities.

2 Chicago, this is from a USGS
3 report, which they collected soil samples from the
4 first six inches. So it's rather shallow data,
5 but they have 395 mg/kg. What I tried to find and
6 add to this table were other major cities.

7 London, for example, London, England about 340
8 mg/kg. So it isn't just here, that this appears
9 to be pretty typical of larger urban cities is
10 that you have lead and this is probably from lead
11 based gasoline that was admitted prior to 1996,
12 which I think is when they phased it out. That --
13 that seemed to be missing also in the studies
14 here. Backing up to I also found a couple of
15 studies that seemed reminiscent of CCDD.

16 I found one study where they
17 were looking at brownfield soils in Scotland and
18 they were trying to measure metal sorption of a
19 brownfield soil and they tried to measure the
20 sorption of lead and, again, they couldn't do it
21 because lead wasn't soluble at the pH of that
22 soil.

23 Again, which reiterates that
24 using a pH of 4.5 isn't realistic in Illinois

1 soils and it really is very important for the
2 Board to understand how important that a good
3 science based pH is in promulgating these cleanup
4 objectives. What else?

5 Some of the questions that I
6 think you asked. You asked about how do the pH's
7 here compare with pH's of organic soils and,
8 again, I took that to mean like fens and bogs and
9 I did find some information and those could range
10 from 3.8 to 7.5. So they're all over the place.
11 Organic soils is a whole taxonomic, diverse topic,
12 but, again, I don't think organic soils are really
13 all that relevant to this picture.

14 You asked what input parameters
15 should we use for TACO. I think I can reiterate
16 what some people have said yesterday. Using a pH
17 that is really accurate and reflects the soils we
18 have in Illinois would be very beneficial. I
19 mean, the information is there. I wanted to
20 mention, too, the pH can tell you a lot about the
21 mineralogical or the chemical composition of any
22 solid. When I get an unknown in my lab, I like to
23 take a quick pH of it because that can tell me
24 something about its chemical composition and if

1 you handed me a soil sample of pH of 4.5, I'd say,
2 what, you got battery acid in this? This is not
3 Illinois soil. There is something wrong with it.
4 This is not typically what we want to see. What
5 else? Also, something else I wanted to throw out
6 all of this is assuming Type 1 groundwater -- are
7 all these sites really Type 1? I think we're
8 doing that because it's conservative. I
9 understand that, but Type 2 groundwater -- Class 2
10 groundwater I was just wondering that has quite an
11 impact on the outcome of TACO and I just throw
12 that out there is do we have the option of
13 considering these facilities?

14 I was thinking about this last
15 night that is it possible to have CCDD facilities
16 that are reflective of urban soils versus rural
17 soils or could you have CCDD facilities that
18 reflect the prevalent groundwater whether it's
19 Type 1 groundwater or Type 2 groundwater to take
20 advantage at least what we understand about the
21 geology and the composition of urban soils to
22 maybe strengthen the science here as far as going
23 forward with this. I don't understand the
24 ingestion in that ration exposure very well.

1 If you're putting this into a
2 quarry, I'm a little lost. If we're talking about
3 residential ingestion and inhalation, I was
4 wondering who is living next to one of these
5 things that would really be impacted by that. I
6 mean, including those characteristics make the 107
7 mg/kg over a large range of pH. It makes it more
8 conservative, but is this really good science
9 because you all know this better than I do whether
10 or not residential would really be applicable to
11 CCDD facilities when they're placed into a quarry.

12 The last thing I think I could
13 add to this there's some question if you're
14 putting CCDD into an excavation that is not a
15 limestone quarry, sand and gravel, I think what
16 we're concluding here is it doesn't matter. We're
17 saying we agree with TACO in it doesn't pose a
18 risk if the concentration of lead, for example, is
19 less than 107.

20 We're saying it doesn't matter.
21 It doesn't pose a risk. It would be additional
22 insurance to have that carbonate terrain, but
23 we're saying, in essence, we agree with TACO. The
24 last thing I kind of wanted to put in when you go

1 to the TACO website, the TACO websites talks a lot
2 about flexibility and different options and I
3 really admire TACO. It's obvious a lot of thought
4 went into it, but when I started reading how it's
5 been applied to CCDD, a lot of those options
6 seemed to be missing and I can't understand why we
7 didn't take advantage of all the options and all
8 the things that are there.

9 The last thing I tried to put
10 into my testimony and I may be naive for saying
11 this. Are we rushing this? Is there no
12 opportunity to collect any real data to accomplish
13 our goals? I realize there are deadlines and you
14 are all marching to different orders and I realize
15 there's no money. I know this is a bad time to
16 ask for money. But I just put that out there
17 because I can. I think that's all I remember.

18 MR. INGERSOLL: I was going to ask a
19 question or two, if I may. Dr. Roy, I believe
20 some have expressed some concerns about the
21 difference between a rock quarry, a limestone
22 quarry and a sand quarry and would that sand
23 quarry present more risk? Do you have any
24 thoughts on that?

1 MR. ROY: Like we're saying, if you
2 take this CCDD and if the concentrations are less
3 than those numbers in Table 2, no, we're saying
4 there is not a risk. It seems we've done the TACO
5 analysis. It already is conservative for the
6 reasons we mentioned. That it doesn't matter
7 where it goes from there.

8 MR. INGERSOLL: Okay. So if it's
9 one to the minus ten to the sixth of the rock
10 quarry, it would be met -- it would meet that in a
11 sand quarry as well?

12 MR. ROY: Yes.

13 MR. INGERSOLL: Okay. The other
14 things you mentioned about ingestion. You
15 mentioned that you used the 107 number, which I
16 believe is the groundwater ingestion for mid range
17 pH's for lead. There is also I believe in the
18 proposed MAC's ingestion number -- I mean, soil
19 ingestion number for soil PAH's. Do you have any
20 thoughts on the suitability for that kind of
21 pathway being placed into these MAC's?

22 MR. ROY: Again, it didn't make a
23 lot of sense to me that you would consider that
24 pathway. I was focusing on the pathway to

1 groundwater.

2 MR. INGERSOLL: You covered that.

3 MR. ROY: And because of the lack of
4 solubility of most pH's and I think what you're
5 concerned about is it seemed like it would be
6 useful to revisit that.

7 MR. INGERSOLL: Okay. Thank you.

8 MS. MANNING: Thank you.

9 MS. TIPSORD: Are there any
10 questions --

11 MS. MANNING: We're ready to open it
12 up to questions.

13 MS. TIPSORD: -- for Dr. Roy?

14 MR. WILT: Dennis Wilt from Waste
15 Management. Final part of your testimony and that
16 I believe was that you were talking about the
17 ingestion/inhalation residential standard. Are
18 you aware of the fact that quarries have been
19 developed for residential use and, in fact,
20 recreational use?

21 MR. ROY: Yes, I grew up in southern
22 Indiana in a little town called Bedford, which is
23 nicknamed the limestone capital of the world. I
24 grew up collecting fossils in quarries. So this

1 is a big part of my background.

2 MR. WILT: I have no other
3 questions. Thank you.

4 MR. JOHNSON: Doctor, I notice you
5 departed Indiana in the early '80s and you moved
6 to Champagne Urbana, is that correct?

7 MR. ROY: 1980.

8 MR. JOHNSON: So obviously you're an
9 intelligent individual. Let me ask you. We've
10 been focusing on pH and if you were writing this
11 rule, what would you set the pH level at, the
12 maximum contaminant level for pH?

13 MR. ROY: Probably the 6.2 -- 6.3 to
14 the 6.6 range just because that blends well with
15 the information I've got and it just makes sense
16 to me as far as the mineralogical composition and
17 all the inherent safeguards we've got going for us
18 in TACO.

19 MR. JOHNSON: Thank you.

20 MS. MANNING: Mr. Morrow, you have a
21 question?

22 MR. MARROW: Hi. Les Marrow from
23 the Agency. As a way of clarification for the
24 TAH's that were mentioned earlier, the MAC's are

1 based on background, anthropogenic background and
2 not risk.

3 Dr. Roy, in your second Table 2,
4 you list a totals concentration and an SPLP
5 concentration. Do you think the SPLP
6 concentration is a more reliable value for
7 valuating migration to groundwater?

8 MR. ROY: Then?

9 MR. MARROW: Then a landfill. Than
10 a total solid would.

11 MR. ROY: Absolutely. I mean, the
12 total concentrations are just that. They don't
13 tell you anything about speciation. They don't
14 tell you what form they're in. They don't tell
15 you if they're leachable or not. They could be
16 darn near insoluble carbonates. That's all they
17 are.

18 MR. MARROW: We do offer that as an
19 option, a leaching test as an option in our rule.

20 MR. ROY: Okay. I think it's a step
21 forward. I mean, if you're trying to protect
22 groundwater, then I think that's the logical step
23 is to collect good representative samples and do
24 some sort of laboratory extraction at the pH that

1 is relevant to the system you're trying to study,
2 but that's a much better indication than totals.

3 MR. MARROW: Okay. And, thirdly and
4 lastly, you mentioned in your summary that there's
5 a lack of any relevant field data for CCDD fills?

6 MR. ROY: Yes, sir.

7 MR. MARROW: Would you consider
8 groundwater data to be relevant field data
9 groundwater --

10 MR. ROY: You mean groundwater
11 adjacent to a CC --

12 MR. MARROW: Yes, next to the fill
13 operation.

14 MR. ROY: Absolutely. Do you have
15 any?

16 MR. MARROW: No, we don't. Not at
17 this time. Thank you.

18 MR. ROY: Like I said, when I was
19 reading through all these documents, I kept
20 waiting to see what kind of concentrations are we
21 talking about, which metals are we talking about
22 and there was nothing.

23 MR. MARROW: Yes, I understand.
24 Thank you very much.

1 MR. ROY: Mm-hmm.

2 MS. TIPSORD: And along those lines,
3 Dr. Roy, I would like to ask if it could be
4 possible for you to provide to the Board copies of
5 the two soil leaching studies you were talking
6 about? I believe the first one was Gang and
7 Townsend 2001 and the second one was Townsend, et
8 al 2004.

9 MR. ROY: Absolutely.

10 MS. MANNING: We'll get that.

11 MR. ROY: Absolutely.

12 MS. TIPSORD: Mr. Cobb?

13 MR. COBB: I have a few questions
14 for Dr. Roy.

15 MS. TIPSORD: Give your name for the
16 court reporter.

17 MR. COBB: Rick Cobb, Illinois EPA.
18 With respect to many of the metals and even the
19 PAH's for, say, benzopyrene, are you aware,
20 Dr. Roy, that we've -- the Board has concluded in
21 their groundwater standards that those have been
22 found commonly and Illinois groundwaters require
23 adopting groundwater standards because we do have
24 groundwater standards based on Section 8 of the

1 Illinois Groundwater Protection Act, which we
2 provided that -- that burden and it has been found
3 commonly in groundwater.

4 I was just wondering if given
5 all the lack of the mobility of PAH's and maybe
6 they could never be found in groundwater, they
7 have been found in groundwater and the Board does
8 have standards for those as well as the inorganic
9 apply except due to natural causes. So basically
10 for the inorganics the naturally occurring level
11 the groundwater standard is that naturally
12 occurring level under the non-degradation.

13 MR. INGERSOLL: Could we break that
14 question down?

15 MS. MANNING: I'm not sure we
16 follow.

17 MR. COBB: I was testifying, too, as
18 well as -- I wasn't asking a question.

19 MS. TIPSORD: I would note Mr. Cobb
20 was sworn in yesterday and remains sworn in for
21 today's proceeding.

22 MR. INGERSOLL: It doesn't require
23 an answer then.

24 MR. COBB: It was mixed. I was just

1 responding to what I heard in the testimony and so
2 the concept of threat under Section 12(a) of the
3 act and in the legislation threat to the
4 environment and in Section 620.301 uses the word
5 threat. That is not a risk based concept. The
6 standards apply except due to natural causes.

7 MS. MANNING: If I may respond to
8 that a bit as well. I see very little difference
9 between threat and risk. I think they're kind of,
10 you know, two sides of the same coin. That's what
11 we're talking about and that's what I believe the
12 legislature was talking about when I talked about
13 risk and we're not talking necessarily about
14 groundwater pursuant to the Board's groundwater
15 rules, but we're talking about the risk to the
16 groundwater as a result of the placement of soil
17 in quarries. Risk, threat, whatever you want to
18 call it, Dr Roy's testimony, in my opinion, is
19 absolutely relevant to that question.

20 MR. COBB: I just want to clarify.
21 I'm not talking about risk. I'm talking about
22 threat and there's a calculation to calculate risk
23 and threat is based on what can be removed from
24 ordinary treatment techniques in a private water

1 supply well. That's always been the Board's
2 standards for years.

3 MS. MANNING: And, again, I'm going
4 to have to respond for the sake of this
5 legislation I believe them to be one in the same
6 thing and I believe responsibility of the Board is
7 to balance the threat and the risk versus the real
8 economic cost to making an overly conservative,
9 overly stringent rule for no environmental gain,
10 but a lot of economic cost and that is the role of
11 the Board and that is why the legislature threw
12 this question to the Board.

13 MR. COBB: Yes. Risk is to human
14 health. Threat is to groundwater. For example,
15 in our Braidwood Exelon case where we were looking
16 at tritium where we had a lawsuit against some of
17 those threats to the well, they were nowhere near
18 the drinking water standards. So I just wanted to
19 clarify that. Dr. Roy, you were mentioning that
20 you do get some variable pH's and bogs and fens?

21 MR. ROY: I didn't have a lot of
22 information, but I looked up in a soil taxonomic
23 book that had pH measurements and that was the
24 information I garnished as quickly as I could.

1 MR. COBB: I did have information,
2 and I may need to provide this in comments, but
3 one of the sites that are on the map that we
4 provided yesterday as an exhibit I think it's
5 Bluff City Materials they're actually in the
6 recharge zone of a Class 3 groundwater area.

7 MS. TIPSORD: Mr. Cobb, what county
8 is that?

9 MR. COBB: I'm going to have to go
10 back in comments and clarify that, but that's a
11 Class 3 groundwater that has been designated by
12 the Board and that recharge area contributes
13 groundwater to the fen, which is a dedicated
14 nature preserve. So we do have some of these
15 sites that bump up against those types of sites.

16 MS. MANNING: And I would reiterate
17 and respond to obviously Mr. Cobb's testimony now
18 that we have always maintained that the Board has
19 the flexibility and I think the legislature gave
20 it the flexibility to make site specific kinds of
21 considerations relevant in this rulemaking because
22 as -- as there may be sites in groundwater three
23 areas, I wouldn't disagree with Mr. Cobb's
24 testimony.

1 He is certainly an expert where
2 these facilities are in relation to Illinois'
3 groundwater, but there are also some in areas that
4 a site owner could make a groundwater two
5 demonstration adequately whereas there is no
6 drinking water sources near because they're all
7 subject to an ordinance under the TACO -- under
8 the TACO parameters and/or they may have already
9 impacted wells as a result.

10 I know one of these CCDD
11 facilities has about 50 former underground storage
12 tanks near them and I'm not suggesting that's
13 what -- I'm just suggesting you have to look at
14 the whole gamont, not the most pristine of the
15 CCDD facilities and then create a rule that
16 requires all soil to be based on that most
17 pristine of standards. I don't think that's what
18 the legislature did and I don't think that that's
19 where the Board ought to be going with this rule.

20 MR. COBB: And in the exhibits I
21 provided, I did indicate that those are probably
22 the most vulnerable aquifers in the State of
23 Illinois and northeastern Illinois and they're
24 also as I iterated in my testimony extremely

1 important for the future of northeastern Illinois
2 due to the restriction on Lake Michigan, the
3 future population growth and so I mean it's
4 extremely important to protect these groundwaters
5 and I also say that as you know a lot has been
6 said about the limestone quarries in McHenry
7 County in particular, which is definitely not
8 going to get a Lake Michigan allocation from what
9 I've seen.

10 We're talking about sands at the
11 surface and sands in gravels. I do have another
12 question. On page 13, Dr. Roy, that's the Table 2
13 with the leachate concentrations. I numbered
14 these pages, but I think I was in line with what
15 you were -- Hearing Officer Tipsord --

16 MR. ROY: Laboratory extracts?

17 MR. COBB: At the bottom of the
18 page, it says soils and the quarry environment.

19 MR. ROY: Uh-huh.

20 MR. COBB: At the bottom of that
21 page, the last sentence. You indicate may be
22 neutralized. You use the phrase may be.

23 MR. ROY: Mm-hmm.

24 MR. COBB: So it's not an absolute?

1 MR. ROY: I think I'm just writing
2 as a scientist rather than saying, yes, it would
3 be neutralized.

4 MR. COBB: You concluded in your
5 testimony that it was an absolute.

6 MR. ROY: Yes, I would stand by
7 that.

8 MR. COBB: So is it may be or should
9 it be changed?

10 MR. ROY: It should be changed.

11 MR. COBB: Okay. That's all I've
12 got.

13 MS. TIPSORD: Anything else for
14 Dr. Roy from the audience? Do you have questions?

15 MR. RAO: Actually, Dr. Roy answered
16 our pre-filed questions in his testimony. Thank
17 you very much.

18 MR. ROY: Sure.

19 MS. TIPSORD: Chairman Holbrook, you
20 had a couple of questions?

21 MR. HOLBROOK: I guess this goes
22 back to my legislative days. Yesterday, we were
23 given aquifer maps and they were all up in the
24 northeast ten percent of the state. I know we're

1 talking about the soils of Illinois now and I know
2 your Table 2 represents four counties all within
3 about ten percent of the geographic area, again,
4 northeast and are non-glaciated areas of our
5 state, southern Illinois, along the river. Would
6 these all be the same? Is this indicative of what
7 they all are? I mean, you go down to Hardin
8 County, do these type of studies hold up? Are
9 they -- are they the same?

10 MR. ROY: Yeah, that information I
11 presented in that table, it was my understanding
12 most of the CCDD concerns were in this area.
13 Going back to your question. As you get further
14 into Illinois, the southern part, the soils are
15 going to tend to be a little more acidic because
16 the parent material is older. These are older
17 glacial material, but still trying to find pH 4.5,
18 you know, it's still -- the mineralogy is not
19 there even though the parent material, like I
20 said, is older and you've had much more longer
21 times for weathering early and the production of
22 more acidic values, but, again, if you go down
23 with depth, you're going to get into more
24 carbonate available -- carbonate rich materials

1 and keep the pH from being too -- keeping the pH
2 from being very acidic.

3 MR. HOLBROOK: I'm concerned about
4 the entire state.

5 MR. ROY: So am I.

6 MR. HOLBROOK: Thank you.

7 MS. TIPSORD: Along those lines,
8 would it be possible -- and we know City of
9 Springfield has been participating in the hearing
10 as they talk about taking out some of their stuff
11 to a quarry. I assume in the Sangamon County
12 area. Would it be possible to give us some
13 details on soils perhaps like in Sangamon County
14 where we know there may be another facility?
15 Would that be possible? Something like Table 2 to
16 include Sangamon County in the first Table 2?

17 MR. ROY: You mean after this?

18 MS. TIPSORD: Yes.

19 MR. ROY: Sure.

20 MS. TIPSORD: I thought you were
21 doing that off the top of your head, Dr. Manning.

22 MS. MANNING: We could do that in
23 post-hearing comments. You can get information on
24 all the counties in Illinois.

1 MR. ROY: Yes.

2 MS. MANNING: We'll present that in
3 our post hearing comments.

4 MS. TIPSORD: Thank you.

5 MS. MANNING: On the pH, correct?

6 MS. TIPSORD: Right.

7 DR. GLOSSER: Dr. Roy, I have a
8 question. I'm trying to understand the difference
9 between the data you presented in your Table 2 on
10 page six, which is consistent with data we heard
11 yesterday, but if you look at the Natural
12 Resources Conservation Service data that IEPA
13 submitted previously, they did something called
14 summary of Illinois soil pH value, which is from
15 the STATSGO database, the soil ranges are much
16 more acidic than anything we're hearing and I
17 really have desperately been trying to understand
18 why NRCS, which is our soil agency, our national
19 soil agency, their data ranges go down, in one
20 case as low as 3.6, but typically more matter of
21 4.5 to 8.4 they show is the range for one soil
22 type.

23 So I think that's maybe part of
24 the confusion why we're looking at lower pH values

1 because NRCS is showing ranges much lower than
2 what we're seeing in the data that you have and I
3 have been presented.

4 MR. ROY: I think it's because NRCS
5 they're looking at soils -- the pH's of the A
6 horizon, the B horizon, the O horizon because
7 that's where they're most concerned and you're
8 going to have more pH's as you go towards the
9 surface because soil formation is an acidification
10 type of process.

11 So I'm thinking they have not
12 gone very deep with their sampling because they
13 don't have to and that would -- I hate to use the
14 word bias, but certainly that would bias their
15 data to be a little more acidic because that's the
16 type of soil profile that they're most interested
17 in.

18 So I think that's probably why
19 there's a bit of confusion here whereas with CCDD
20 I think, again, we're talking much greater depths.
21 We're getting away from pathogenesis, the effects
22 of soil formation and that's where you get those
23 more alkaline pH's.

24 MS. GLOSSER: The data you presented

1 in Table 2, page six and you're reporting a 7.3,
2 those appear to be from a 0 to -- depths of 0 to
3 0.06 and they're all really very alkaline.

4 NRCS would show a range that may
5 go that high, but it would also possibly be 4.5.
6 So I don't see any 4.5's in your data. How do
7 you -- I'm not understanding why NRCS -- maybe
8 somebody from EPA can explain NRCS's data would
9 show a threat of such a low pH?

10 I guess that would be the
11 concern to me. If NRCS is showing a really low pH
12 as a possibility from soils I guess that's one
13 thing that maybe is being considered here is if
14 there is the risk of a low pH then we want to
15 factor that into the rulemaking unless it's all
16 alkaline than that's a whole different situation.

17 MR. ROY: I wouldn't -- I wouldn't
18 want to say they're all alkaline. I think like
19 most natural median you have a lot of natural
20 variation. I mean, the result I brought from our
21 study the median pH was about 6.6. So it's not --
22 it's less than 7 and even in our study we saw in
23 those results, we saw some pH's that were 5, 6 and
24 sometimes 4, but you're always going to have that

1 level of variation.

2 MS. MANNING: It -- go ahead.

3 MR. ROY: It doesn't surprise me
4 that you would see some occasional acidic values.
5 No, it doesn't surprise me. I guess I would want
6 to look at what would be the central tendency,
7 what would be the most expected values and it
8 wouldn't be those. Again, you could have pH's of
9 4 from organic acids depending on if you've got a
10 nice, O horizon for example. O as in inorganic or
11 a well developed A horizon, a nice, dark prairie
12 soil. You can get some good acidic pH's if you
13 take those into the lab and mix them with water,
14 but if you go down ten feet, no, you don't have
15 those. Does that help? I guess different
16 databases intended for different applications
17 would be the short answer.

18 MS. MANNING: And to add to that, I
19 would just -- I would just caution the Board that
20 you don't make a good rule necessarily by just
21 going with the lowest number because that doesn't
22 necessarily mean you've -- you've effectuated the
23 correct balance between risk and threat or, you
24 know, that you're overpresuming risk at a great

1 cost.

2 MS. GLOSSER: Thank you.

3 MS. TIPSORD: Mr. Morrow?

4 MR. MORROW: Les Morrow, again, from
5 the Agency. To help Board Member Glosser try to
6 comprehend the differences. I think perhaps the
7 NRCS data being an agricultural database we're
8 going to see a lot of organic breakdown in the
9 upper levels. That's where we get a lot of our
10 lower pH's and the NRCS database does go down to
11 80 inches. So it's over six feet and that's where
12 we see the higher pH's. So that might be one
13 possible explanation. Maybe Dr. Roy can comment
14 on that.

15 MR. ROY: I agree.

16 MS. TIPSORD: I would note
17 Mr. Morrow was sworn in yesterday and is sworn in
18 for purposes of today. Are there any other
19 questions for Dr. Roy? I have a couple of
20 questions for Ms. Manning and they have to do with
21 economics and I also -- some of these you may be
22 able to answer and others you may want to comment
23 on in final comment. First of all, Ms. Manning,
24 you and Mr. Huff both presented us with some

1 pretty startling economic data on the difference
2 between landfilling versus CCDD and I just want to
3 be sure. Do you agree with Mr. Huff's testimony?
4 Are they consistent --

5 MS. MANNING: Absolutely. I thought
6 he presented very good data as a matter of fact.

7 MS. TIPSORD: Thank you. The other
8 question I have is you indicate you don't have an
9 objection to the soil testing and the testing in
10 your testimony. I'm just wondering in the prior
11 appearance before we went to first notice we got a
12 lot of evidence about how much it costs a month to
13 do the testing for groundwater parameters.

14 We've really never gotten any
15 information on what the cost of soil testing for
16 some of these parameters might be. Do you have
17 that information or if anyone has that information
18 we --

19 MS. MANNING: We can do that and we
20 can present that with our post hearing comments.
21 I would -- I would like to in response to your
22 question also talk a little bit about the soil
23 testing. The projects that the Public Building
24 Commission deals with are generally very large

1 projects. However, there could be small projects,
2 too. I note that the gentleman from the
3 department -- Chicago Park District is not here
4 right now, but his projects can be much different
5 obviously than the projects -- a big excavation
6 project where they're building a huge building,
7 public building in the city.

8 And the concern for those
9 smaller projects is similar to the concern of the
10 City of Springfield and on that note I would
11 suggest to you that the Board really needs to have
12 a good understanding of when you change the
13 statutory definition from the line of demarcation
14 of industrial/commercial/residential where there
15 was no testing necessary unless it was
16 industrial/commercial, now you're changing that to
17 potentially impacted, there's really confusion out
18 there as to what needs to be tested as a
19 potentially impacted property.

20 As an example, they've raised
21 with me this has been a park in Chicago for a
22 hundred years. What it was in Chicago a hundred
23 years before that we're not necessarily sure, but
24 we don't want to presume that's a potentially

1 impacted property because it's a park in the City
2 of Chicago. We want to presume it's the
3 legislature -- the legislative enactment would
4 allow us to presume it's never been industrial or
5 commercial, therefore, no testing is required for
6 that particular piece of property.

7 So while I said that testing is
8 fairly routine for the Public Building Commission
9 what I really meant is in those large projects
10 they almost always do a phase one, you know, based
11 on some sort of ASTM requirement and I know they
12 would support as the Agency suggested not
13 necessarily writing in the entire ASTM, but
14 guidance in terms of what the ASTM process does,
15 which is what they utilize. Additionally, I think
16 they support the idea of, you know, calling out
17 various other tools that various other large
18 contractors utilize like IDOT and like the toll
19 ways and we're in the process of developing one as
20 well for the Public Building Commission and that
21 kind of thing.

22 So I think the Board's rule
23 ought to encourage those kinds of self developed,
24 if you will, site investigation tools that tie

1 into determinations. So I hope -- that was a long
2 answer to your question and we'll get you that
3 extra information in our post hearing comments.

4 MS. TIPSORD: Thank you. Are there
5 any other questions for either Dr. Roy or
6 Ms. Manning?

7 MR. MORROW: I have one.
8 Ms. Manning, you mentioned the qualitative -- I
9 don't have it right here. It's wrong to refuse
10 qualitative definition. I just wondered what you
11 meant by that.

12 MS. MANNING: What I meant in the
13 Board's first notice opinion there was a statement
14 that accepted the Agency's one size fits all and
15 we're not going to look at soil from a qualitative
16 definitional perspective. I'm not exactly sure
17 what the Board meant by that, but my concern is
18 that's exactly what I believe the legislature
19 asked you to do in the definition of
20 uncontaminated, which says -- means soil that does
21 not contain soil contaminants in concentrations
22 that pose a threat to human health, safety and the
23 environment and then later on calls out background
24 concentrations and basically says if you use TACO

1 when you use the background concentrations you
2 have to use those that are at the location of the
3 quarry and that kind of thing.

4 Reading those portions of the
5 definition together and knowing, you know, and my
6 involvement in the legislative process on this I
7 really -- I really believe the Board's job here is
8 to make an assessment of the risk and that a one
9 size fits all approach may not work.

10 MR. RAO: You're not applying here
11 that the Board adopt kind of a narrative standard
12 without specifying concentrations to define
13 uncontaminated soil?

14 MS. MANNING: I think concentrations
15 are helpful when there's testing done and I think
16 concentrations were -- were -- were presumed. I
17 think that the concentrations can vary by the TACO
18 application that a PE decides is appropriate for
19 the -- and that's really -- you heard a lot of
20 testimony yesterday and I think before about when
21 the Agency established this MAC stuff stopped
22 going to CCDD facilities at a great cost to the
23 state and nobody anticipated that result because
24 the anticipation was that we would have a risk

1 based determination as to what is safely placed in
2 a quarry. There's been no evidence that there is
3 any real harm that is caused over the course of
4 many years of soil going to quarries or CCDD going
5 to quarries. We have gone forward every step of
6 the process and added regulations. I mean, in
7 2006, the Board did the permits for the quarries.

8 We're not looking at the kind of
9 situations where people are dumping all kinds of
10 different things in quarries and CCDD facilities.
11 These quarries largely many of them are mandated
12 to fill their -- their places through land
13 reclamation plans that they have because they have
14 interfaces as well with the Department of Mines
15 and Minerals at the Department of Natural
16 Resources.

17 Many of them -- most of them
18 that I know have NPDES permits. So they have data
19 from their NPDES permits and they're required
20 to -- they're just a different regulatory
21 structure than a landfill and when the Attorney
22 General's Office comes in and, you know,
23 Mr. Sylvester argues that, well, this is by all
24 intents and purpose a landfill, it is not a

1 landfill. It's a creation already of the earth
2 that is either a quarry or a mine that needs to be
3 filled and the question is not is it a waste or
4 isn't it is a waste in my mind.

5 It's dirt and the question is is
6 the dirt clean enough to go there without an
7 adverse impact on the groundwater. We're not
8 talking about waste. We're not talking about
9 RCRA. We're not talking about the federal
10 government coming in and saying we're going to
11 regulate dirt. There's no federal oversight.
12 There's no federal impact here. There's simply a
13 question of is the dirt clean enough and that's
14 really how TACO is created.

15 In my mind, and maybe the Agency
16 has a different memory of this, but I recognized
17 that when we originally started dealing with
18 cleanups of underground storage tank sites there
19 was a rulemaking that there was no consideration
20 of the difference between the soil standards and
21 the groundwater standards. So when -- when the
22 Board looked at this, the Board sent it back and
23 said, you know, we need to look at attenuation
24 factors. We need to look at other kinds of issues

1 and out of that sort of interchange between the
2 Board and the EPA, TACO was born and my point here
3 to you is TACO has many uses and that's what
4 people were using prior to everybody figuring out
5 the Agency's definition, their enforcement
6 definition, of whether it was clean or not was
7 well it's from God and the glaciers, but if it was
8 from an urban environment we can't have it and I
9 would suggest to the Board that -- that in your
10 rulemaking in 2006, and I pointed this out in my
11 earlier testimony at least one of the quarries, it
12 was Vulcan, came to the Board and said, you know,
13 you can't leave this rule without telling us what
14 is uncontaminated for the purposes of the
15 quarries. You need to define this for us because
16 otherwise we're going to get enforced against and
17 we're not going to know if we're doing what is
18 right or not.

19 So now we didn't do that. So
20 now we get all these enforcement actions. It's
21 really in my mind the enforcement actions that
22 drove this rule because we needed a clearer
23 definition of what is safe to put in quarries and
24 that is what the task of the Board is. And I

1 appreciate that the Agency did as much work --
2 good work on this bill. Not just this rule, but
3 as well as all the legislative effort that went on
4 into getting this to the Board, but I do think to
5 answer your question just simply there are
6 different kinds of applications and a one size
7 fits all may not be the one that is best suited to
8 moving forward with a permitted rule.

9 MS. TIPSORD: Any other questions?

10 Thank you very much. I did have -- I've been
11 notified that the mayor of Lyons was going to be
12 here and would like to make a statement. Is there
13 anyone else here who would like to testify today
14 that has not pre-filed questions? Okay. We do
15 have time for you if you'd like to come up and be
16 sworn in and we can have you sworn in.

17 WHEREUPON:

18 CHRISTOPHER GETTY

19 called as a witness herein, having been first duly
20 sworn, deposeth and saith as follows:

21 MR. GETTY: Good morning. Good
22 morning, board members. My name is Christopher
23 Getty. I'm the mayor of the Village of Lyons.
24 We're a small community just west of the City of

1 Chicago and the County of Cook.

2 I'd like to make a brief
3 statement about an experience my community went
4 through and I believe it pertains to the matters
5 you'll be making decisions on. After my election
6 in 2009, I inherited the task of finishing a park
7 development next to a new town hall site. During
8 the construction phase of this project, excess
9 dirt was excavated which did not meet the
10 residential inhalation and ingestion standards for
11 soil and was, therefore, too dirty to remain on
12 the future park site.

13 At that time, the village
14 decided to enroll into the Illinois EPA's SRP
15 program to ensure the material at issue was being
16 disposed of in a responsible manner. The village
17 hired a professional soil consultant who proposed
18 removing all unsuitable soil from the park site
19 and disposing it into the Lyons -- Reliable
20 Materials Lyons Quarry CCDD site, which is just
21 adjacent to this park and our new town hall.

22 As the soil posed no threat to
23 local groundwater, this proposal represented the
24 lowest cost and most environmentally safe disposal

1 option. The proposed plan was rejected by the
2 Illinois EPA because the soil did not meet the
3 EPA's proposed rules for CCDD disposal and,
4 therefore, could not be deposited into the quarry
5 CCDD site.

6 In response, our village
7 consultant proposed a plan which included
8 comprehensive testing and all excess soils to be
9 separated into areas which passed CCDD standards
10 from those that did not. The plan was to dispose
11 the soil that met the CCDD standards into the
12 quarry while hauling the ineligible material away
13 to a landfill. After spending a significant
14 amount of money on soil testing, which pushed our
15 budget to the limit, we were able to dispose of
16 approximately only half of the soil on site. The
17 remaining material was to be designated for a
18 landfill at a projected cost of \$1.5 million.

19 This would have caused
20 tremendous, financial hardship to our village so a
21 request was made for a more realistic alternative.
22 Our soil consultant and the Illinois IEPA finally
23 arrived at a comprehensive compromise, which
24 whereby a berm was to be constructed with the

1 remaining excess soil on a portion of that
2 parkland. After being told the initial material
3 could not remain on site, the village and myself
4 questioned why it could remain on site in a berm
5 on that park property. We were informed that the
6 berm was to be covered with a three foot cap of
7 clean soil to act as a barrier. This would render
8 the material harmless to humans.

9 We then asked if that -- if the
10 risk of this harm would further be reduced by
11 installing a deeper cap as recommended by our
12 consultant. While the answer was yes, we were
13 also told that since we didn't have the space or
14 the funding to construct such a barrier, it wasn't
15 necessary at the time. So, thus, the berm was
16 built on the park property at a cost of \$150,000
17 to the municipality. This was not cheap, but it
18 did allow us to make line adjustments within our
19 budget to complete the project. Given all this,
20 the Village of Lyons has two main questions.

21 Why can we bury soil with the
22 Illinois EPA approval under a three foot cap in a
23 park site adjacent to a CCDD operation, but the
24 same material can not be disposed of in a quarry

1 located right next to the park a hundred feet
2 under a clean soil cap?

3 It would be safer for the public
4 to keep this soil in an area where no accidental
5 excavation would release it into the environment.
6 As a responsible municipal government and the
7 ultimate owner upon closure of the Reliable
8 Materials Lyons Quarry and CCDD fill operations,
9 we feel the Village of Lyons has very vested
10 interest in the answers to these questions and I
11 ask in deliberating on your final rules, please
12 review the matter carefully so in the future
13 neither my village nor another village has a
14 similar situation which detrimentally impacts us
15 with arbitrary standards which were used in this
16 matter. Thank you very much for your time.

17 MS. TIPSORD: Thank you. One
18 second. Can you tell me the name of your soil
19 consultant?

20 MR. GETTY: It was Mackey
21 Consultants.

22 MS. TIPSORD: We received a public
23 comment yesterday from Mr. McClain with very
24 similar fact situations. I'm just trying to

1 establish if it's the same situation.

2 MR. GETTY: I'm not sure if it was.
3 I didn't know if they were coming in.

4 MS. TIPSORD: Thank you.

5 MR. GETTY: Sure.

6 MS. TIPSORD: Any other questions
7 for the mayor of Lyons? Would anyone like to
8 comment on the Department of Commerce and Economic
9 Opportunity's decision not to do an Economic
10 Impact Study on this rule?

11 As I noted before, some of you
12 have already commented both in your comments and
13 your testimony so thank you very much. Can we go
14 off the record for just a second?

15 (Whereupon, a break was taken
16 after which the following
17 proceedings were had.)

18 MS. TIPSORD: After a discussion was
19 held off the record, we will close initial first
20 comment -- first notice comment period on April
21 20th and allow responses to be filed on April 27th
22 and the April 27th comments should be responsive
23 comments, not new comments, and that will then
24 close the comment period so that the Board can

1 adopt. We would anticipate second notice and, in
2 fact, statutorily pretty much have to go to the
3 second notice before the first meeting in June.

4 Are there any other questions or comments?

5 MS. FLOWERS: Can we have another
6 discussion about the timeframe because I think the
7 20th is a Friday. So we would really only have
8 about three or four days to review comments.

9 MS. TIPSORD: Then the 27th is also
10 a Friday. Does it work better for you midweek? I
11 don't have a calendar in front of me. I was just
12 giving you a week.

13 MS. FLOWERS: I was just thinking
14 that it might be better to have the first set of
15 comments due earlier so there would be some time
16 to review. Maybe just midweek like you said.

17 MS. TIPSORD: 18th?

18 MS. FLOWERS: The 18th would be a
19 Wednesday.

20 MS. TIPSORD: We'll do April 18th
21 then and I'll memorialize this in a Hearing
22 Officer order as well. I want to thank you all.
23 It's been a pleasure. We've gotten a lot of new
24 information and good information and we really

1 appreciate your assistance in this matter. Thank
2 you very much. We're adjourned.

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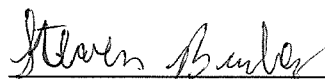
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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF COOK)
4

5 I, Steven Brickey, Certified Shorthand
6 Reporter, do hereby certify that I reported in
7 shorthand the proceedings had at the trial
8 aforesaid, and that the foregoing is a true,
9 complete and correct transcript of the proceedings
10 of said trial as appears from my stenographic
11 notes so taken and transcribed under my personal
12 direction.

13 Witness my official signature in and for
14 Cook County, Illinois, on this 26 day of
15 March, A.D., 2012.

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