

1 PRESENT:

2 MS. MARILI McFAWN Board Member
 MR. JOSEPH YI Board Member

3 DR. RONALD FLEMAL Board Member
 MR. KEVIN DESHARNAIS Hearing Officer

4 MR. CHARLES FEINEN Board Attorney
 MS. K.C. POULOS Board Attorney

5 MS. AUDREY LOZUK-LAWLESS Board Attorney
 MR. ANAND RAO Technical Staff

6 MS. KIMBERLY ROBINSON Attorney, IEPA
 MR. H. MARK WIGHT Attorney, IEPA

7 MR. GARY P. KING IEPA
 MR. JOHN SHERRILL IEPA

8 MR. JAMES PATRICK O'BRIEN IEPA
 MR. DOUGLAS CLAY IEPA

9 MR. THOMAS C. HORNSHAW IEPA
 MS. TRACEY E. VIRGIN IEPA

10 MS. VICKY L. VonLANKEN IEPA
 MR. LAWRENCE EASTEP IEPA

11

12

13

INDEX

14	EXHIBITS:	IDENTIFIED	ADMITTED
15	Exhibit 11	7	7
	Exhibit 12	16	16
16	Exhibit 13	23	24
	Exhibit 14	33	33
17	Exhibit 15	37	39
	Exhibit 16	39	39
18	Exhibit 17	47	51
	Exhibit 18	54	87
19	Group Exhibit 19	88	89
	Exhibit 20	100	101
20	Exhibit 21	134	134

21

22

23

24

1 HEARING OFFICER DESHARNAIS: Good morning.
2 My name is Kevin Desharnais and I'm the hearing
3 officer for this proceeding entitled in the matter of
4 Tiered Approach to Corrective Action Objectives or
5 T.A.C.O. 35 Illinois Administrative Code, Part 742.
6 And that's docketed before the Pollution Control Board
7 as R97-12.

8 Present today on behalf of the Pollution Control
9 Board are Board members Marili McFawn.

10 MS. McFAWN: Good morning.

11 HEARING OFFICER DESHARNAIS: And Board member
12 Joseph Yi.

13 MR. YI: Good morning.

14 HEARING OFFICER DESHARNAIS: Board Assistant
15 Chuck Feinen.

16 MR. FEINEN: Good morning.

17 HEARING OFFICER DESHARNAIS: And a member of
18 the Board's Technical Unit, Anand Rao. Also K.C.
19 Poulos, who's another Board assistant.

20 MS. POULOS: Good morning.

21 HEARING OFFICER DESHARNAIS: We are also
22 expecting two other Board members to attend, Dr.
23 Ronald Flemal and Kathleen Hennessey. They have been
24 tied up on other business so far this morning. So

1 hopefully they'll be joining us later.

2 Today's hearing will be governed by the Board's
3 procedural rules for regulatory proceedings pursuant
4 to 35 Illinois Administrative Code, 102.282. All
5 information which is relevant and not privileged or
6 repetitious will be admitted. Additionally all
7 witnesses will be sworn and subject to cross
8 questioning.

9 Today is the first day of the second hearing in
10 this proceeding. The first hearing began on December
11 2nd, 1996, and was continued on the record on December
12 3rd and December 10th. That hearing was for the
13 Agency's presentation of its proposal, questions for
14 Agency witnesses.

15 Pursuant to my ruling at the end of the last
16 hearing, today's proceeding will actually begin with
17 by allowing follow-up questions on questions 8 through
18 11 of the additional prefiled questions that were
19 submitted by the Illinois Petroleum Council on
20 December 5th, 1996.

21 The main intent of today's hearing is to provide
22 an opportunity for witnesses for entities other than
23 the Agency to present their testimony.

24 The following parties have submitted prefiled

1 testimony. Harry Walton submitted on behalf of the
2 Illinois State Chamber of Commerce. David Rieser and
3 Roy Ball submitted on behalf of the Illinois Steel
4 Group. Karen Lyons submitted on behalf of the
5 Illinois Petroleum Council. John Watson and Linda
6 Huff submitted by Gardner, Carton & Douglas. And
7 testimony of Raymond Reott submitted by Jenner &
8 Block.

9 After addressing the issues remaining from the
10 last hearing, we will proceed through the prefiled
11 testimony in that order, which is the order in which
12 it was received. With one exception, I recall that I
13 was told that Roy Ball will not be with us today, so
14 we will save his testimony until the end.

15 MR. RIESER: Thank you very much.

16 HEARING OFFICER DESHARNAIS: Prefiled
17 testimony will be entered into the record as if read.
18 Witnesses can read a summary of their testimony and
19 then should be available for questioning.

20 We will begin questioning with any prefiled
21 questions. I believe there are only three for Raymond
22 Reott and for Linda Huff.

23 During the questioning period if there's any
24 additional questions as follow-up, please raise your

1 hand, wait for me to acknowledge you. When you're
2 acknowledged, state your name, the organization you
3 represent if any.

4 After all those witnesses have testified, there
5 will be an opportunity for anyone else to present a
6 statement. Anyone choosing to do so will be subject
7 to questioning.

8 The Agency has also requested that it be allowed
9 to present rebuttal testimony. After everyone has had
10 an opportunity to present testimony, the Agency will
11 present its rebuttal testimony and the Agency will
12 then be subject to questioning.

13 I believe the Agency has a preliminary matter they
14 wish to address at this time.

15 MS. ROBINSON: That's correct. This is
16 Kimberly Robinson with the Illinois EPA, Assistant
17 Counsel. We filed yesterday to the service list, and
18 I have additional copies in the back along the back
19 row, of an Errata Sheet Number 2, and I'd like to
20 submit that to the Board at this time.

21 HEARING OFFICER DESHARNAIS: All right. Are
22 there any objections to this Errata Sheet Number 2 of
23 the Illinois Environmental Protection Agency being
24 admitted?

1 MR. RIESER: No objections, but will we have
2 an opportunity to question regarding the proposal?

3 HEARING OFFICER DESHARNAIS: Yes, after.

4 MR. RIESER: Will the Agency have testimony
5 regarding the proposal?

6 MS. ROBINSON: There will be a summary of the
7 Errata Sheet Number 2 that Mr. King will do, and we
8 don't have any problem with cross questions on what's
9 contained in Errata Number 2.

10 HEARING OFFICER DESHARNAIS: Do you wish to
11 do that summary now or when the Agency presents its
12 rebuttal?

13 MS. ROBINSON: If you wish we can do it now
14 or after the follow-up from the initial set of
15 hearings, whichever is best for everybody.

16 HEARING OFFICER DESHARNAIS: I think we'll
17 save it for after the follow-up, people have an
18 opportunity to review the errata sheet.

19 MS. ROBINSON: That will be fine.

20 HEARING OFFICER DESHARNAIS: Okay, then this
21 Errata Sheet Number 2 will be admitted as Exhibit
22 Number 11.

23 (Exhibit 11 was admitted.)

24 HEARING OFFICER DESHARNAIS: Okay, we will

1 then turn to any remaining follow-up questions on the
2 prefiled questions, the additional prefiled questions
3 submitted on December 5th.

4 MR. RIESER: Thank you very much. David
5 Rieser, Ross & Hardies, on behalf of the Illinois
6 Petroleum Council and the Illinois Steel Group.

7 I've been able to refine my questions just down to
8 basically two areas to follow up on things that we had
9 discussed at the last hearing.

10 The first one, I'm going to read the original
11 question because I don't think we got to a final
12 answer. And I don't remember which, I think this was
13 number 8. This was number 8.

14 If the Agency used USEPA Health Based Levels from
15 the SSL for deriving Tier 1 soil remediation
16 objectives for contaminants which do not have an MCL,
17 and identified those values in the newly added
18 Appendix C Table F, should not those same values be
19 used in this table, that being Table B.

20 And there was some discussion from the Agency
21 about it was a State decision, and I kept asking why,
22 and I never felt like I got a real final answer on why
23 you couldn't use those values that had been used for
24 preparing the Tier 1 values, Tier 1 numbers.

1 DR. HORNSHAW: I started to answer that
2 question at the first hearing. There may have been
3 some confusion. I'm going to recap some of it and
4 then provide a little bit more.

5 When we first started along this line of
6 questioning, I explained that we tried to be as
7 consistent with USEPA's soil screening level guidance
8 in Tier 1 as possible.

9 And my testimony goes into some description of
10 where we maintained consistency and where we had to
11 deviate from USEPA. In this particular case we tried
12 to maintain consistency with the Health Based Levels
13 that USEPA used for groundwater as the value to plug
14 into calculations to back calculate to a soil number.

15 We deliberately chose those numbers so that our
16 table would look as much as possible like USEPA's
17 table that is used around the country.

18 USEPA derived their table using I guess, quote,
19 unquote, national soil which they derived from real
20 soil data from a lot of places around the country, and
21 then a whole lot of modeling runs with those different
22 soil types to come up with a consensus soil I guess
23 would be the best way to put it, and then used that
24 consensus run along with some statistics on the data

1 to come up with a dilution factor which was
2 appropriate for the whole country basically, and
3 actually it's probably protective of 90 or 95 percent
4 of the country.

5 And they also used maximum contaminant levels if
6 they were available, in other words, nationwide
7 drinking water standards which are repeated in the
8 Illinois drinking water standard or groundwater
9 standards also.

10 Where those standards are not available for the
11 other chemicals in the soil screening guidance, they
12 developed what they called Health Based Levels which
13 were either for carcinogens, the one in one million
14 risk level using standard assumptions for drinking
15 water over a lifetime, or for noncarcinogens a Health
16 Based Level which is equal to a hazard index of one.

17 The Health Based Level for noncarcinogens is
18 different for the health advisory or different from
19 the health advisory which would be calculated using
20 Part 620 Subpart F, health advisories, in that the
21 health advisories at the state level incorporate
22 what's called a relative source contribution term
23 which is designed to account for all other sources of
24 exposure to a chemical during the day other than

1 drinking water, and the default value is 20 percent.
2 This was all argued out and discussed and agreed upon
3 in the groundwater standards rule making back in '87
4 or '89, whenever that was.

5 MR. RIESER: Probably both.

6 DR. HORNSHAW: Probably both. But we
7 deliberately chose not to use the state's health
8 advisory approach in Tier 1 to maintain consistency
9 with USEPA.

10 Once we got to Tier 2 we decided Tier 2 was
11 supposed to be Illinois specific. In other words,
12 you're supposed to use Illinois soil instead of
13 national soil or nationwide soil, whatever, and we
14 thought it's appropriate to use Illinois groundwater
15 criteria and standards and health advisories. That's
16 why we specify in the language of Tier 2 the default
17 value for GWobj is either the groundwater standard or
18 the health advisory to be determined according to how
19 you do things in Part 620.

20 MR. RIESER: Most of -- I'm sorry. Other
21 default values that are used in Tier 2 are also drawn
22 from the SSL's, isn't that correct?

23 DR. HORNSHAW: Some are, and some are
24 site-specific.

1 MR. RIESER: Right. But when you use default
2 values with respect to soil factors that aren't
3 otherwise allowed to be measured, aren't almost all of
4 those derived from the SSL?

5 DR. HORNSHAW: Correct.

6 MR. RIESER: So --

7 DR. HORNSHAW: Could I clarify a little bit?
8 And John, you may need to help me on this. I think
9 part of the reasoning behind specifying some of the
10 defaults in Tier 2 is because it would require a lot
11 of effort to generate the number, and the number
12 itself doesn't mean a whole lot, it doesn't have a
13 great influence on the final value calculated. I
14 think it's still available for people to go out and do
15 that, but we specify the value so that they don't
16 spend a lot of money for very little difference in the
17 final cleanup number.

18 MR. RIESER: Sure. And you selected default
19 values based on the literature that the USEPA had
20 reviewed in developing their SSL table?

21 DR. HORNSHAW: Right.

22 MR. RIESER: They've done a lot of work in
23 doing that and it saved a lot of work in preparing
24 this table.

1 DR. HORNSHAW: And we appreciated it.

2 MR. RIESER: Right. So that there are many
3 factors other than the fact -- many other factors that
4 go into the Tier 2 formulas other than those that are
5 measured in site-specific fashion, which also come
6 from this national standard, correct?

7 DR. HORNSHAW: Correct.

8 MR. RIESER: And I guess I still don't see
9 the reason for having the Illinois values being used
10 when you determine that the Tier 1 level, that they
11 were protective enough, appropriate enough on a Health
12 Based Level to use the SSL numbers.

13 DR. HORNSHAW: I guess two parts to the
14 answer. One, it was just a policy decision on our
15 part, but beyond that we decided that it would
16 probably be more appropriate in Tier 2 -- well,
17 actually that we could accept the USEPA's numbers in
18 Tier 1, even though they didn't include a relative
19 source contribution term for the noncarcinogens
20 because of all the other conservatisms built into Tier
21 1, it was a -- the Tier 1 number was a number we could
22 live with.

23 But once you get the site-specific data, then it
24 probably is more appropriate to use Illinois specific

1 groundwater criteria.

2 MR. RIESER: I understand, thank you.

3 The next question I want to follow up on today
4 involved the infiltration rate. I had discussion with
5 Mr. Sherrill I believe regarding the infiltration
6 rate, which I don't want to repeat here.

7 I guess my only question is whether a -- you can
8 use a value based on measurement, site evaluation and
9 site-specific measurement for infiltration rate, for
10 the infiltration rate at the Tier 3 level?

11 MR. SHERRILL: Yes, you could.

12 MR. RIESER: Thank you. And my final
13 question -- that was my final question, thank you.

14 HEARING OFFICER DESHARNAIS: Does that
15 conclude the follow-up from the last hearing?

16 MR. RIESER: It does.

17 HEARING OFFICER DESHARNAIS: Then we will
18 move on to the prefiled testimony of other witnesses
19 for this hearing.

20 MS. ROBINSON: Did you want to go through
21 Errata Number 2 or do you want to wait on that until
22 after?

23 HEARING OFFICER DESHARNAIS: Yeah, I believe
24 we'll wait on that so that people have an opportunity

1 to review it. And we'll do that at the same time the
2 Agency does its rebuttal.

3 MR. RIESER: Could we go off the record
4 briefly?

5 HEARING OFFICER DESHARNAIS: Certainly.

6 (Off the record discussion.)

7 HEARING OFFICER DESHARNAIS: We'll go back on
8 the record. We're moving on to the prefiled questions
9 from other parties. And we're beginning with the
10 testimony of Harry Walton.

11 MS. ROSEN: Good afternoon, I'm Whitney Rosen
12 -- or good morning, Whitney Rosen from the Illinois
13 Environmental Regulatory Group, and with me today is
14 Mr. Harry Walton and he will be presenting his
15 testimony. Would you please mark this.

16 HEARING OFFICER DESHARNAIS: Hopefully you
17 have a copy for the court reporter. Any objection to
18 having the prefiled testimony admitted as an exhibit?

19 (No response.)

20 MS. ROSEN: Mr. Walton, do you recognize this
21 document?

22 (The witness was sworn.)

23 MS. ROSEN: Do you recognize that document?

24 MR. WALTON: Yes.

1 MS. ROSEN: Could you please identify it for
2 the --

3 MR. WALTON: This is my testimony offered in
4 regard to 97-12.

5 MS. ROSEN: And is it a true and accurate
6 copy of the document which we submitted to the Board?

7 MR. WALTON: Yes.

8 MS. ROSEN: Okay. Now I ask that you please
9 mark this as an exhibit.

10 HEARING OFFICER DESHARNAIS: Thank you. The
11 testimony will be marked as Exhibit Number 12.

12 (Exhibit Number 12 was marked for
13 identification.)

14 HEARING OFFICER DESHARNAIS: And now is there
15 any objection to this testimony being admitted?

16 MS. ROBINSON: The Agency has no objection.

17 HEARING OFFICER DESHARNAIS: Okay. The
18 testimony is admitted as Exhibit 12.

19 (Exhibit Number 12 was admitted.)

20 MS. ROSEN: Thank you.

21 MR. WALTON: My name is Harry Walton, Group
22 Leader for Environmental Risk Management, Illinois
23 Power Company, and I represent the Illinois State
24 Chamber on the Advisory Committee for this issue and

1 represent the Illinois Manufacturer's Association on
2 the Advisory Committee in regard to underground tanks.
3 I'm chairman of the Illinois Environmental Regulatory
4 Group's Corrective Action Work Group.

5 I have a lot of years experience in remediation in
6 Illinois, as well as various issues in the development
7 of the Groundwater Act and Groundwater Standards.

8 In regards to Brownfield, I participated on behalf
9 of the State Chamber in development of legislation,
10 and have a good understanding of the scope of the
11 Brownfield legislation, its intent and goals, and what
12 was it trying to accomplish.

13 One of the main goals of this legislation was to
14 change the remedial culture in Illinois, remediate
15 situations and sites where there's a clear risk. The
16 Brownfield legislation as I said earlier created the
17 Site Remediation Advisory Committee, and it consisted
18 of members of various associations that are very
19 active in this issue and in a business regard to
20 bankers and such.

21 Also several groups came forward to provide
22 technical input, experiences, in crafting the best
23 document available in a consensus manner with the
24 Agency. The Illinois Mine Regulatory Group, the

1 Illinois Petroleum Council provide a lot of support
2 and insight in this rulemaking.

3 This rulemaking benefited greatly by a previous
4 exercise in regard to 732, the development of the
5 Subdocket B, I don't know what the process was called
6 back then, I guess it's called T.A.C.O. now, the risk
7 based corrective action based on ASTM approach. This
8 previous experience served as a basis for the Agency
9 and the advisory group to embark on developing these
10 regulations.

11 Many of the issues that have to be addressed in
12 this rulemaking were defined and we have a wealth of
13 information through our previous experience. And this
14 led to allow the various parties to really focus on
15 those issues that were important.

16 And the primary issue was the risk has three
17 parts; a source, a pathway, and a receptor. If one of
18 those things is missing there's no risk. So the
19 regulation was crafted to really focus on true risk
20 and utilize limited resources.

21 I only want to focus on two issues, and the
22 primary one is Subpart C. Throughout the process it
23 became evident there were many site situations and
24 such that was just basically common sense. You didn't

1 need to go through a formal risk assessment or even a
2 Tier 1, Tier 2 or Tier 3, you know. You needed to
3 have the ability on some -- in some cases to address a
4 simple risk model. If you had a source and a pathway,
5 but no receptor, it's not a problem. If you had a
6 source and a receptor, but no pathway, it's not a
7 problem.

8 So we wanted to allow this opportunity to allow
9 the regulated communities to really focus its energies
10 at those sites for which there were problems.

11 Initially the Agency embodied this concept in Tier
12 3 in what they called their common sense aspect of
13 development of risk objectives.

14 I think throughout the previous record there have
15 been some indication that Tier 3 is this big bugaboo,
16 very complicated and very rigorous risk process. Tier
17 3 can be anything from a very simplistic risk
18 assessment to a full blown Super Fund assessment.

19 But the advisory committee felt that there had to
20 be an opportunity early on that the entire regulated
21 community could understand that the simplistic common
22 sense risk assessment could occur very early in the
23 process.

24 As I said earlier, the Agency's initial proposal

1 did not include this up front, but through the
2 consensus building process we reached consensus with
3 the Agency and all the various parties that it was an
4 appropriate thing to do.

5 But again Subpart C is a very rigorous
6 prescriptive process. You have to have a clear
7 understanding of the three-dimensional aspects of the
8 source. Your source has to be controlled or removed.
9 You have to have clear definition of pathways,
10 receptors, and you have to meet some very prescriptive
11 criteria, that these criteria provide physical
12 barriers between the pathway and receptors.

13 Again Subpart C should be viewed as equivalent to
14 a Tier 1 solution, a Tier 2 solution or a Tier 3
15 solution. It's equally protective, and as I stated in
16 my written testimony, in some cases it would be more
17 conservative in providing protection to receptors.

18 You've removed the risk, and over time even though
19 it -- the groundwater, the groundwater and soil
20 systems are dynamic concentrations that will diminish
21 over time, and potential for risk as time goes along
22 will decrease.

23 You've taken out what I call the good gooey stuff
24 and the remaining material would be contaminated

1 media. I hate standing up, I can't do anything with
2 my feet.

3 Anyway, so and the final issue I want to address
4 is 620 regulations. 620 regulations were crafted on a
5 general basis for protection of use of groundwaters
6 throughout the state of Illinois. And this again is a
7 very general set of criteria. And it is where the
8 groundwater would be utilized and there would be a
9 receptor utilizing that groundwater.

10 But under 742 we're developing another set of
11 numbers that are more appropriate, more realistic and
12 in many cases are more protective. Those are based
13 upon actual site conditions, based upon actual
14 hydrogeologic situations, and the presence or lack of
15 receptors and users of that groundwater.

16 And in conclusion I appreciate the opportunity to
17 participate in this development record and this
18 proceeding and will be happy to respond to questions.

19 MS. McFAWN: Thank you, Mr. Walton.

20 HEARING OFFICER DESHARNAIS: Are there any
21 questions for Mr. Walton?

22 MS. ROBINSON: The Agency has no questions.

23 MR. WALTON: That's not fair.

24 MS. McFAWN: Well, that's noted on the

1 record. You could have had a seat, Mr. Walton, and
2 that would have been fine. I would just like to say
3 that I have reviewed your prefiled testimony and I
4 find it to represent the views you have spoken about
5 just now and previously in this record and I thank you
6 for it.

7 HEARING OFFICER DESHARNAIS: Okay, that
8 concludes the prefiled testimony of Mr. Walton. I
9 would just note during Mr. Walton's testimony we were
10 joined by Board Member Dr. Ronald Flemal, and also his
11 attorney assistant Audrey Lozuk-Lawless who's seated
12 in the back of the room.

13 The next prefiled testimony that was received was
14 received from the Illinois Steel Group. Mr. Rieser,
15 did you want to hold your testimony until Mr. Ball is
16 present?

17 MR. RIESER: Why don't we do that. Thank
18 you.

19 HEARING OFFICER DESHARNAIS: Okay. The next
20 prefiled testimony that was received on behalf of the
21 Illinois Petroleum Council, the testimony of Karen
22 Lyons.

23 MR. RIESER: Is it okay if Miss Lyons
24 testifies from the table?

1 HEARING OFFICER DESHARNAIS: Certainly.

2 MR. RIESER: There are additional copies of
3 Miss Lyon's testimony here if anyone doesn't have
4 them. And Miss Lyons -- will the court reporter swear
5 the witness.

6 (The witness was sworn.)

7 MR. RIESER: Miss Lyons' testimony was
8 prefiled and I'd like to have the prefiled testimony
9 marked as Exhibit 13 I believe.

10 HEARING OFFICER DESHARNAIS: That's correct.

11 (Exhibit Number 13 was marked for
12 identification.)

13 MR. RIESER: Miss Lyons, I'm going to show
14 you a copy of your testimony which has been marked as
15 Exhibit 13, and ask you if this is a true and accurate
16 copy of the testimony that we filed and prepared?

17 MS. LYONS: Yes, it is.

18 MR. RIESER: I'd like this exhibit entered.

19 HEARING OFFICER DESHARNAIS: Are there any
20 objections?

21 (No Response.)

22 HEARING OFFICER DESHARNAIS: The testimony of
23 -- prefiled testimony of the Illinois Petroleum
24 Council, testimony of Karen Lyons is admitted as

1 Exhibit Number 13.

2 (Exhibit Number 13 was admitted.)

3 MR. RIESER: And Miss Lyons has a summary of
4 her testimony which she'd like to read at this time.

5 MS. LYONS: Good morning. My name is Karen
6 Lyons and I'm a hydrogeologist with Shell Oil Products
7 Company in Oak Brook, Illinois. As a hydrogeologist I
8 provide technical support to Shell environmental
9 engineers responsible for petroleum release sites in
10 several midcontinent states. I have brought with me
11 my curriculum vitae that I will submit as an exhibit
12 at this time.

13 MR. RIESER: Do you want me to have this
14 introduced as an exhibit right now, or should we wait
15 until she's done? She has some other articles.

16 HEARING OFFICER DESHARNAIS: Why don't we
17 admit all of them at the same time.

18 MR. RIESER: Okay, thank you.

19 MS. LYONS: I am here today to represent the
20 member companies of the Illinois Petroleum Council.
21 These companies have worked toward the goal of
22 adopting risk-based corrective action principles in
23 state corrective action programs.

24 To begin, we would like to commend the Agency for

1 their effort and commitment to integrating risk-based
2 concepts into their current proposal, and we would
3 encourage the adoption by the Board.

4 Each of the IPC member companies have participated
5 in the development of RBCA programs in many states.
6 We believe that the key principles of IEPA's programs
7 compare favorably with other states.

8 While we would encourage the Board approval of the
9 proposal, we have identified three issues in our
10 prefiled testimony which we believe need further
11 clarification.

12 Specifically vapor transport from soils to
13 enclosed space, use of direct measurement of
14 contaminated media, and presumption within the
15 exclusion of pathways.

16 First -- I would like to summarize these issues at
17 this time.

18 First, as stated in our prefiled testimony, it is
19 our experience that for a wide range of petroleum
20 spills and leaks from underground storage tanks, the
21 presence of indoor vapors is most closely linked with
22 the migration of liquid gasoline directly into
23 enclosed spaces. This emergency situation currently
24 deserves and receives immediate attention under

1 existing regulations.

2 In the absence of liquid phase gasoline, gasoline
3 vapors may defuse through porous soils. However,
4 currently available models for vapor diffusion in
5 soils often predict presence of vapors where none are
6 detected.

7 As discussed in the prefiled testimony,
8 cooperative research and efforts through API, the
9 American Petroleum Institute, and PERF, Petroleum
10 Environmental Research Forum, may further our
11 understanding of the transport of vapors into enclosed
12 spaces.

13 Early results of this work are very encouraging,
14 demonstrating that for gasoline vapor constituents,
15 the attenuation of vapor concentrations is much more
16 rapid than what would be predicted solely on the basis
17 of diffusion. This observation supports the plan of
18 action proposed in the 742 regulations.

19 Second, one of the fundamental assumptions within
20 a risk-based methodology is that exposure to chemicals
21 must occur for a potential problem to exist.

22 IPEA has certainly endorsed this concept in their
23 proposal by offering specific criteria for pathway
24 exclusion and proposing the use of institutional

1 controls to prevent potential exposure.

2 For an exposure to occur, it must be demonstrated
3 that chemicals of concern are present in a source area
4 and are transported to a receptor along an exposure
5 pathway.

6 Demonstration of this transport can be made with
7 models, but such a verification may also be made using
8 site measurements for the presence of the chemical
9 along the transport pathway. In some cases, actual
10 site data may prove more reliable than the results of
11 the model scenario.

12 In our prefiled testimony we have provided two
13 examples where site data can be used to make this
14 demonstration.

15 Because of features inherent to the models that do
16 not account for certain attenuation mechanisms, it
17 would not be surprising to find that actual
18 groundwater measurements may demonstrate less impact
19 to the groundwater than the models might predict.

20 For this reason we would promote the use of
21 readily attainable field data, that is actual
22 concentrations observed during periodic monitoring
23 events.

24 McAllister and Chiang in their 1994 paper

1 recommend that "evaluation of plume characteristics
2 over time will reliably determine if contaminant
3 migration is limited or prevented by natural
4 phenomena." In other words, historic groundwater
5 monitoring data should be used to determine whether
6 the plume will ever migrate to the point of human
7 exposure.

8 Our second example focused on the development of a
9 site-specific first order attenuation constant,
10 λ , used in our equation R26 from "measured
11 groundwater data".

12 McAllister in 1996 demonstrates how the steady
13 state analytical solution for groundwater transport
14 and attenuation of contaminants presented in R26 when
15 properly applied can provide reasonable estimates of
16 the contaminant plume extent and can be used to
17 determine site-specific first order attenuation rate
18 constants.

19 This paper establishes specific procedures for
20 calibration of the model with monitoring data along
21 the primary flow path to determine these λ values.

22 I have brought copies of both these technical
23 papers that I have referenced to submit as exhibits at
24 this time.

1 Finally, our testimony provides a technical
2 justification for those presumptions stated within
3 Subpart C for exclusion of pathways.

4 The presumption that chemicals must be found above
5 screening level concentrations within three feet of
6 the soil surface for the surficial soil exposure
7 pathway to apply is based on information in the
8 ASTM E 1739-95 Guide.

9 This pathway exclusion is not without restriction.
10 Institutional controls are required on such a site so
11 that chemicals at greater depths are not brought to
12 the surface at a later date, through excavation, for
13 instance.

14 Similarly the definition of a sufficiently thick
15 layer of soil for the basis of vapor transport pathway
16 exclusion is drawn from ASTM E 1739-95 Guide, and is
17 taken as three meters, or approximately ten feet.

18 This pathway elimination is also not without
19 restriction; caveats are required so that the vapor
20 diffusion will not bypass the layer of soil, through
21 sewer utility lines, et cetera, and institutional
22 controls are required on such a site so that chemicals
23 at greater depths again are not brought to shallower
24 depth at a later date.

1 Thank you for the opportunity to testify before
2 the Board on these issues. As I stated previously, we
3 urge the Board to adopt this rule. If you have any
4 questions at this time, I'd be happy to answer them.

5 HEARING OFFICER DESHARNAIS: Are there any
6 questions for Miss Lyons?

7 MS. ROBINSON: The Agency has no questions.

8 HEARING OFFICER DESHARNAIS: Are there any
9 other questions?

10 (No response.)

11 HEARING OFFICER DESHARNAIS: Mr. Rieser, did
12 you want to admit those exhibits?

13 MR. RIESER: Yes, we have three items that
14 Miss Lyons discussed in her testimony. Her CV, an
15 article by P.M. McAllister & C.Y. Chiang, and a second
16 article by McAllister. Should we admit them as Group
17 Exhibit 14, or do you want them as separate exhibits?

18 HEARING OFFICER DESHARNAIS: Actually could
19 we admit them as attachments to the prefiled
20 testimony?

21 MR. RIESER: Certainly, we can do that. One
22 item on the CV, the CV references two articles where
23 the principal author is a K.A. Kurkky, and I want to
24 confirm that's Miss Lyons' maiden name.

1 MS. LYONS: That is.

2 MR. RIESER: Thank you. Additional copies of
3 the CV and the articles are available at the -- up at
4 the front of the room if anyone else wants them, and
5 I'll present these to you as part of the attachments,
6 Mr. Hearing Officer. Thank you.

7 HEARING OFFICER DESHARNAIS: Are there any
8 objections to the admission of the curriculum vitae of
9 Karen Lyons, an article entitled Practical Approach To
10 Evaluating Natural Attenuation of Contaminants in
11 Groundwater by P.M. McAllister and C.J. Chiang, or an
12 article entitled Application of Screening Model
13 Approaches for Evaluation of BETX Natural Attenuation
14 In Groundwater by Paul McAllister?

15 (No response.)

16 HEARING OFFICER DESHARNAIS: Seeing no
17 objections, these will be admitted as Attachments A, B
18 and C respectively to the prefiled testimony of Karen
19 Lyons, Exhibit 13.

20 The next prefiled testimony that was received by
21 the Board was received from John Watson and Linda Huff
22 submitted by Gardner, Carton & Douglas. Mr. Watson.

23 MR. WATSON: Thank you. Good morning.

24 MS. McFAWN: Good morning.

1 MR. WATSON: This morning I would like to
2 offer testimony that I have prepared on behalf of the
3 -- what we have termed the Site Remediation Program
4 Coalition, which is a coalition of clients including
5 B.F. Goodrich Company, Commonwealth Edison Company,
6 Hydrosol, Inc., INX International Ink Company,
7 Northern Illinois Gas Company, William Wrigley Jr.
8 Company, and Woodward Governor Company.

9 My testimony today that I would like to offer into
10 evidence includes four pages of testimony plus an
11 attachment, which is the testimony that was -- that I
12 submitted on behalf of the Site Remediation Program
13 Coalition in the R97-11 proceeding, which also
14 included as Exhibit 1, Addendum Number 1, which is the
15 Super Fund memorandum of agreement between the
16 Illinois Environmental Protection Agency and the
17 United States Environmental Protection Agency Region
18 5.

19 HEARING OFFICER DESHARNAIS: Would the court
20 reporter swear the witness?

21 (The witness was sworn.)

22 HEARING OFFICER DESHARNAIS: Mr. Watson, did
23 you wish to submit your prefiled testimony as an
24 exhibit?

1 MR. WATSON: Yes, I did. And I would like to
2 state on the record that the document that I'm
3 offering today by testimony is a true and accurate
4 copy of the testimony, including the exhibits, as I
5 have previously described. And will you mark this for
6 me, please.

7 HEARING OFFICER DESHARNAIS: Prefiled
8 testimony of Gardner, Carton & Douglas, the testimony
9 of John Watson will be marked as Exhibit 14. The
10 testimony includes two attachments, Attachment A being
11 the testimony submitted by Mr. Watson in R97-11, and
12 Attachment B being the Super Fund memorandum agreement
13 between the Illinois Environmental Protection Agency
14 and United States Environmental Protection Agency
15 Region 5.

16 Are there any objections to the admission of this
17 testimony?

18 MS. ROBINSON: No objection.

19 HEARING OFFICER DESHARNAIS: The testimony
20 will be admitted as Exhibit 14.

21 (Exhibit 14 was admitted.)

22 MR. WATSON: Thank you. I'd like to just
23 summarize very briefly my testimony, and what I have
24 set forth in the document, that is being introduced

1 into evidence is a statement regarding what the Site
2 Remediation Program Coalition believes to be the two
3 fundamental elements which we believe that the Part
4 742 rules must reflect in order to be consistent with
5 the statutory intent of the legislation.

6 First, we believe that the regulations must
7 legitimately provide methodologies to define
8 remediation objectives consistent with the risk posed
9 by a site as represented by the existing and future
10 uses of which that site is intended to be put.

11 As Ms. Huff, Linda Huff will describe in her
12 testimony, we believe that there are a number of
13 significant issues that are outstanding with respect
14 to the risk issues in order to insure that the
15 regulations again are consistent with the statutory
16 directive as it relates to risk-based remediation
17 objectives.

18 Second, we believe that in order for this program
19 to be effective, in order for Part 740, the Site
20 Remediation Program rules to be effective, that the
21 methodologies and the cleanups that have been
22 identified and undertaken pursuant to Part 742 and the
23 established risk-based cleanup standards must be
24 recognized by Illinois EPA and other agencies involved

1 in the regulation of sites in Illinois as protective
2 of human health and the environment, and consistent
3 with the requirements for the cleanup of contaminated
4 properties in Illinois.

5 It is our understanding that the Part 742 rules
6 are intended to apply to remediation of sites in
7 Illinois across Illinois EPA's remedial programs, and
8 that would include the remediation of RCRA corrective
9 action sites as well as sites being remediated
10 pursuant to the Illinois Super Fund program.

11 It is also our understanding that Illinois EPA has
12 discussed it's Part 742 rules with the USEPA. They've
13 discussed the risk-based approaches and assumptions
14 that are inherent and fundamental to the establishment
15 of remediation objectives under the Part 742 rules.

16 And it is also our understanding that EPA
17 understands that USEPA has acknowledged the
18 appropriateness of these standards for the cleanups of
19 sites in Illinois consistent with the memorandum of
20 understanding or the memorandum of agreement between
21 Illinois EPA and USEPA, and of course the limitations
22 of that agreement.

23 We believe again that this concept is critical and
24 these recognitions and understanding are critical to

1 the ability of parties to obtain the necessary
2 certainty that is needed to fully utilize Part 742
3 rules.

4 With that I will be happy to answer any questions
5 if the Agency has any at this time.

6 MS. ROBINSON: We have no questions at this
7 time.

8 MR. WATSON: Thank you.

9 HEARING OFFICER DESHARNAIS: Are there any
10 questions from any other parties for Mr. Watson?

11 (No response.)

12 HEARING OFFICER DESHARNAIS: Thank you, Mr.
13 Watson.

14 MR. WATSON: Thank you. Next we'd like to
15 offer the testimony of Linda L. Huff in these
16 proceedings. Unlike Mr. Walton, Miss Huff would like
17 to stand to present her testimony.

18 HEARING OFFICER DESHARNAIS: Would the court
19 reporter please swear the witness.

20 (The witness was sworn.)

21 MR. WATSON: Would you like to mark this as
22 an exhibit.

23 HEARING OFFICER DESHARNAIS: Prefiled
24 testimony of Linda L. Huff will be marked as Exhibit

1 15.

2 (Exhibit Number 15 was marked for
3 identification.)

4 MR. WATSON: Ms. Huff, I'm showing you what
5 has been marked as Exhibit 15, a document entitled
6 testimony of Linda Huff. Would you take a look at
7 that, please. What is that document?

8 MS. HUFF: This is my testimony.

9 MR. WATSON: That was prepared for this
10 proceeding?

11 MS. HUFF: Correct.

12 MR. WATSON: Could you just for the record
13 describe the contents of the document including the
14 exhibits that are attached.

15 MS. HUFF: This document contains written
16 testimony and then I have submitted also several
17 attachments. Attachment A is my resume. B is some
18 specific risk assessment experience. Attachment C is
19 arsenic concentrations in soils. Attachment D is
20 background levels and cleanup objectives using arsenic
21 as an example. Attachment E is soil pH
22 characteristics. Attachment F is an excerpt from the
23 USEPA Soil Screening Guidance document. And G is the
24 ASTM discussion of acceptable risk.

1 MR. WATSON: Is that document a true and
2 accurate copy of your testimony, including the
3 exhibits that were prepared for this proceeding?

4 MS. HUFF: Yes, they are.

5 MR. WATSON: We ask that the Exhibit 15, the
6 testimony of Linda L. Huff be introduced into the
7 record in this proceeding.

8 HEARING OFFICER DESHARNAIS: Are there any
9 objections to the admission of this?

10 MS. ROBINSON: No objection.

11 HEARING OFFICER DESHARNAIS: Okay. Would
12 there be any objection to having Exhibits C through G
13 marked as a separate exhibit?

14 MR. WATSON: No, that would be fine.

15 HEARING OFFICER DESHARNAIS: Then the
16 testimony of Linda L. Huff with Attachments A and B
17 which his her -- attachment A being her resume,
18 attachment B a list of risk assessment experience will
19 be marked as Exhibit 15.

20 And the attachment C, which is arsenic
21 concentrations in soil, attachment D, which is
22 entitled background levels and cleanup objectives
23 using arsenic as an example, attachment E entitled
24 soil pH characteristics, attachment F which discusses

1 the effect of pH upon metal mobility or solubility,
2 and attachment G, an article entitled Risk Discussion
3 as Presented in ASTM E 1729-95, Standard Guide for
4 Risk-Based Corrective Action Applied at Petroleum
5 Release Sites, will be marked as Exhibit 16.

6 (Exhibit Number 16 was marked for
7 identification.)

8 (Exhibits Number 15 and 16 were
9 admitted.)

10 MR. WATSON: Thank you. With that Miss Huff
11 would like to offer some summary comments on her
12 testimony.

13 MS. HUFF: Good morning. It's a pleasure to
14 be here, and I would like to acknowledge that the
15 overall process of the Part 742 has really been a very
16 interesting one, and that really I'm here today
17 because of trying to apply, you know, different forms
18 of these regulations.

19 There are certain areas that I felt were important
20 to be discussed and considered before the final rules
21 were made. And really what I'd like to do today is
22 just focus on three of the issues that are in my
23 testimony.

24 The first one really relates to area background.

1 And that is an issue that I think has important
2 residential development implications. We suggested
3 using background ranges established by the Illinois
4 EPA for beryllium and arsenic because the background
5 table indicated levels above Tier 1.

6 Now, we recognize that the lead value of -- the
7 highest lead value of 647 milligrams per kilogram may
8 not be representative of naturally occurring
9 conditions, but without having the database, a set
10 accessible I wouldn't know what the next highest
11 number per se would be to recommend for a background
12 range.

13 But I think that the variation in background for
14 arsenic and beryllium, you probably could assume those
15 are naturally occurring levels, and we would really
16 advocate using the maximum value of that range for
17 each parameter.

18 Otherwise we're really restricting the potential
19 for residential development. And where I see this as
20 an issue is that people who want to have the complete
21 signoff letter from EPA will do a priority blueprint
22 and they will find arsenic, and that will not be
23 attributed really to their condition, but actually it
24 would just be naturally occurring. And they will be

1 in a situation where they'll either require a Tier 3
2 or they may not be actually even able -- with a Tier 3
3 analysis be able to justify a particular level of
4 arsenic or beryllium.

5 So from a working point of view it just seems that
6 we should recognize these are background levels and be
7 able to not to put the burden on the people for things
8 that really are not attributed to their activities.

9 The second issue, it's really perhaps a more
10 difficult one, because it relates to the migration of
11 metals in soil. And the problem that I saw is kind of
12 a two-fold thing. There is a statement which maybe is
13 a little broad, but in the experience that I've had in
14 urban areas is that the soil contents tend to be above
15 a pH of 8. And the pH table that the EPA has
16 developed is very good.

17 But I saw that it was really penalizing people,
18 especially in urban areas where their soil pH is above
19 8, they didn't have to go to the TCLP table in order
20 to look at migration to groundwater as a pathway.

21 And it seemed to me that that is a very stringent
22 requirement compared to the other table. So what I
23 tried to do is look at how is there a way that we
24 could adjust this.

1 And either raising the pH, the table limits, would
2 be one way, or changing the TCLP table would be
3 another way. It wouldn't require both, but it seems
4 to me that there are a group of soils in urban areas
5 that really are penalized in their analysis, because
6 once the TCLP table numbers are used, those are very
7 stringent numbers based on groundwater.

8 And in my argument I tried to show that there is
9 another factor that we need to consider, and that is
10 there is going to be dilution that occurs. So even if
11 we sample the soil and it doesn't -- the TCLP number
12 doesn't meet the groundwater number, we should still
13 recognize that we have a long way to go before we
14 would be having an affect upon groundwater at a
15 particular location.

16 So it was really to try to address this grouping
17 of soils. And I recognize that we don't have a table
18 or USEPA didn't go above pH of 8, and it is a problem,
19 because we then don't have a solid, 100 percent solid
20 data base to make some additional adjustments.

21 But I just think that that's an important area,
22 because there are soils that we routinely encounter in
23 the Chicago area that are above 8.

24 Then just the third area that is important, it

1 really relates back to the selection of risk factors.
2 And I concur with the Agency that Tier 1 should
3 definitely be set to ten to the minus sixth. I think
4 that what we suggested for Tier 2, which actually to
5 even be in a Tier 3 analysis is a recognition that a
6 range of risk is acceptable. That USEPA said we could
7 have -- you know, they recognized ten to the minus
8 fourth to ten to the minus sixth as an acceptable risk
9 range, and that in fact when USEPA developed their
10 Soil Screening Guides document they said that they
11 used ten to the minus sixth, but they recognized that
12 at a site if you have ten chemicals you'll have a risk
13 of ten to the minus fifth.

14 In essence they're saying, you know, based upon a
15 recent residential use, that that residence may have a
16 different -- or there might even be residences that
17 have different risk levels between ten to the minus
18 sixth and ten to the minus fifth and ten to the minus
19 sixth. But that approach was basically considered
20 acceptable.

21 What I think you have to recognize is many of
22 those sites that we deal with are going to have only
23 one or two chemicals at issue. They might be an
24 industrial facility, and I feel that it's important

1 that we recognize that there should be some
2 flexibility in that risk factor.

3 Because EPA even in their development recognized
4 at the point of human exposure there can be variation
5 in those numbers, that you start with ten to the minus
6 sixth, but actually the site might end up with a
7 higher overall risk factor, given the number of
8 chemicals that are there.

9 So I just think it's important that there be
10 recognition of that, and that one way that we brought
11 that issue to the -- to this proceedings was to say
12 that perhaps in Tier 2 we should consider
13 industrial/commercial uses having the ability to have
14 a higher risk factor.

15 The examples I gave were some other states and
16 ASTM to just show that that is a consideration that
17 has been given in other locations. And you know, that
18 awareness I think is important to the proceeding.

19 So that's basically a summary of my testimony.

20 HEARING OFFICER DESHARNAIS: Thank you, Miss
21 Huff. The Agency has submitted two prefiled questions
22 for Miss Huff. I'd ask that they read those prefiled
23 questions and then follow-up will be allowed.

24 MS. ROBINSON: Okay. The first question that

1 we had for Miss Huff regarding her testimony was
2 number one, regarding your testimony on area
3 background and your proposed language for 742.415(e)
4 on page 13 of your testimony, would you please
5 describe how you believe your proposal differs from
6 what the Agency has proposed in Section 742.415(d) in
7 Errata Sheet Number 1?

8 MS. HUFF: I don't believe there would be any
9 differences between those two sections.

10 MS. ROBINSON: So do you still feel it's
11 necessary to incorporate your proposal into the
12 regulations?

13 MS. HUFF: The item (d) is the one that I
14 wanted to see incorporated.

15 MS. ROBINSON: Which because now it's in
16 Errata Sheet Number 1, you think that's sufficient?
17 Our (d), I'm sorry, your (d).

18 MS. HUFF: Let's see, now I'm confused on
19 where I am. Basically there should be no -- I didn't
20 intend for there to be a difference in my (e) and the
21 (e) that was proposed by the Agency. What I wanted to
22 recognize was that there are chemicals, basically
23 arsenic and beryllium and possibly lead, where the
24 background levels were above Tier 1 numbers.

1 So I added in my testimony a (d) to take care of
2 that and then I just had to move the existing one back
3 to (e).

4 MS. ROBINSON: Okay.

5 MS. HUFF: And I reworded it.

6 MS. ROBINSON: Our question number two states
7 on page ten of your testimony you discuss the
8 approaches of Massachusetts, Indiana and Michigan for
9 allowing exclusion of some metals from the risk
10 process. Is there any formal documentation from those
11 three states that supports your testimony, and if so
12 can you please provide the appropriate documentation
13 that demonstrates what you've outlined in your
14 testimony?

15 MS. HUFF: Yes, and I brought copies today of
16 the discussion by those three states in terms of --
17 and their table that shows how they footnoted it and
18 how they dealt with backgrounds and their definitions.

19 MS. ROBINSON: Are you going to submit those
20 as an exhibit to the Board?

21 MR. WATSON: Would you like us to do that
22 right now?

23 HEARING OFFICER DESHARNAIS: Please.

24 MR. WATSON: Okay. We have -- really they're

1 group exhibits and they address the background soil
2 documentation and regulations as it relates to the
3 three states that were discussed in Miss Huff's
4 testimony.

5 MS. ROBINSON: Would it be okay if we took a
6 look at those?

7 HEARING OFFICER DESHARNAIS: Certainly. Do
8 you have copies?

9 MR. WATSON: Yeah, we have some, I'll give
10 you one right now.

11 MS. ROBINSON: Thanks.

12 MR. WATSON: I'll get some additional copies.

13 HEARING OFFICER DESHARNAIS: Okay, what we
14 are reviewing at this time will be referred to as
15 Group Exhibit 17.

16 (Group Exhibit Number 17 was marked for
17 identification.)

18 MS. ROBINSON: Could we go off the record for
19 just a moment?

20 HEARING OFFICER DESHARNAIS: Yes. We'll
21 actually take a ten minute break.

22 (A recess was taken.)

23 HEARING OFFICER DESHARNAIS: We're going to
24 go back on the record. Before we discuss the

1 documents that were submitted by Miss Huff as an
2 exhibit, or to be marked as an exhibit, Miss Huff has
3 one more thing she wants to add to her testimony.

4 MS. HUFF: There was just one additional
5 comment, and in talking about the TCLP table that was
6 revised, there are actually a couple constituents in
7 there that are chlorides and sulfates that are really
8 not based on risk numbers or toxicity numbers, and I
9 had included them in the TCLP table because I really
10 felt of all the constituents those certainly would
11 deserve greater consideration for a different type of
12 number.

13 And that if that couldn't be achieved, then I
14 really think they ought to be deleted, because they
15 are really not in the same category, they don't have
16 the same database for derivation as all the other
17 constituents that we've talked about in the Tier 1
18 process.

19 HEARING OFFICER DESHARNAIS: Okay. We'll now
20 discuss what's been marked as Exhibit Group 17. Does
21 the Agency have any objection to the admission of
22 these documents?

23 MS. ROBINSON: We have no objection, but
24 after a cursory review it appears to us that this is

1 very specific to various states. And are you
2 contending that it's appropriate to follow what other
3 states are doing for the state of Illinois, even
4 though there may be different site-specific data for
5 each individual state?

6 MS. HUFF: I think it's -- the methodology
7 that is used by those states is very appropriate in
8 terms of recognizing that naturally occurring levels
9 of materials occur, and they provided different ways
10 of trying to establish what those naturally occurring
11 levels were, and they didn't hold them to the risk
12 assessment process because they recognized those were
13 naturally occurring. And I think that's the important
14 part.

15 Massachusetts for example used the 90 percentile
16 value. Other states might say take some samples and
17 do it this way. But the idea is that you could
18 establish a background number that was not tied to
19 their derivation, whatever it might be, of their risk
20 numbers.

21 So it's that process that's the important thing.
22 And that's what really we want to I think accomplish
23 in Illinois, is that we don't want to penalize people
24 for naturally occurring levels of materials.

1 MS. ROBINSON: I think the Agency just has a
2 concern because this was submitted today and it's
3 pretty voluminous as far as the weight of what the
4 Board might give this as an exhibit, since we haven't
5 really had time to give it an in-depth review and come
6 back with sufficient questions on it.

7 We'll obviously address some things in final
8 comments, but is this going to be given equal weight
9 to the other exhibits?

10 HEARING OFFICER DESHARNAIS: The weight it
11 will be given will be based upon the other information
12 in the record concerning what these exhibits address.
13 Obviously it will not be looked at in isolation, but
14 that's up to the Board members.

15 MS. ROBINSON: Okay, thank you.

16 HEARING OFFICER DESHARNAIS: Are there any
17 other objections or comments concerning the admission
18 of these documents?

19 (No response.)

20 HEARING OFFICER DESHARNAIS: Okay, then they
21 will be admitted as Group Exhibit 17. And Group
22 Exhibit 17 consists of the following: A document
23 entitled Department of Natural Resources Environmental
24 Contamination Response Activity Administrative Rules

1 for 1982, PA307 as amended. That will be sub A.

2 A document entitled the Commonwealth of
3 Massachusetts Regulation Filing and Publication
4 310 CMR 40.0 will be sub B.

5 A document entitled Indiana Department of
6 Environmental Management Voluntary Remediation Program
7 Resource Guide dated July, 1996, will be sub C.

8 And a document entitled Michigan Department of
9 Natural Resources Interoffice Communication dated June
10 5th, 1995, will be document sub D.

11 (Group Exhibit 17 was admitted.)

12 HEARING OFFICER DESHARNAIS: Are there any
13 additional questions for Miss Huff?

14 (No response.)

15 HEARING OFFICER DESHARNAIS: Mr. Watson?

16 MR. WATSON: I'd like just for a clarity of
17 the record, Miss Huff, are you familiar with the
18 proposed changes that the Agency has made to the area
19 background numbers in its Errata Sheet Number 2?

20 MS. HUFF: Briefly, yes, I am.

21 MR. WATSON: What's your understanding of
22 what they have done to perhaps amend those numbers in
23 light of the testimony that you have offered in this
24 proceeding?

1 MS. HUFF: I believe that they have used the
2 median values for lead, beryllium and arsenic as
3 background.

4 MR. WATSON: Is that -- do you believe that
5 that proposal satisfies your concerns with respect to
6 the area background issue?

7 MS. HUFF: I think it improves it, but I
8 would still be concerned about the 50 percent of the
9 samples that are above the median and how those are
10 actually -- what the impact would be to those people
11 that are above that median number and then how would
12 they find relief.

13 HEARING OFFICER DESHARNAIS: Miss Huff, could
14 you please clarify for the record the source of
15 documents sub A, what state is that from?

16 MS. HUFF: Sub A?

17 HEARING OFFICER DESHARNAIS: The first
18 document.

19 MS. HUFF: I wasn't paying as much attention
20 as I should be.

21 HEARING OFFICER DESHARNAIS: It's entitled
22 Department of Natural Resources Environmental
23 Contamination Response Activity.

24 MS. HUFF: Yes, that is from the state of

1 Michigan, I'm sorry.

2 HEARING OFFICER DESHARNAIS: Thank you. Are
3 there any additional questions for Miss Huff?

4 MS. ROBINSON: The Agency has none.

5 HEARING OFFICER DESHARNAIS: Mr. Rao?

6 MR. RAO: Miss Huff, in your prefiled
7 testimony you had some comments about the definition
8 for residential property. I just want to ask you
9 whether the changes that you have suggested, are they
10 meant for clarifying the Agency's intention or is it
11 supposed to change the proposed intent of the
12 definition?

13 MS. HUFF: It was really intended to clarify,
14 not to change the definition.

15 MR. RAO: Okay. And I have one more. On
16 page 10 of your prefiled testimony, you refer to the
17 term naturally occurring site conditions. Could you
18 explain now what you mean by naturally occurring?

19 MS. HUFF: In my mind those are the
20 concentrations that occur in the soil as a result of
21 geological processes.

22 MR. RAO: Naturally occurring geological
23 processes?

24 MS. HUFF: Correct.

1 MR. RAO: And not anthropogenic process?

2 MS. HUFF: I was not even thinking about that
3 actually.

4 MR. RAO: Okay, thanks.

5 HEARING OFFICER DESHARNAIS: Are there any
6 additional questions for Miss Huff?

7 (No response.)

8 HEARING OFFICER DESHARNAIS: Thank you, Miss
9 Huff.

10 The next prefiled testimony was submitted by Ray
11 Reott from Jenner & Block. Mr. Reott. Would the
12 court reporter please swear the witness.

13 (The witness was sworn.)

14 MR. REOTT: As an initial matter I'd like to
15 mark the prefiled testimony as an exhibit.

16 HEARING OFFICER DESHARNAIS: Prefiled
17 testimony of Ray Reott will be marked as Exhibit 18.

18 (Exhibit Number 18 was marked for
19 identification.)

20 MR. REOTT: And I also have a couple extra
21 copies of that here if anyone else is looking for it.

22 Let me begin by saying something that I said in my
23 written testimony but I want to repeat here just in
24 part because I have the opportunity to do it in

1 person.

2 There has been such a profound evolution in the
3 Agency's position, that that can't go without a lot of
4 recognition. It is the result of an extraordinary
5 amount of work and attention from the Agency personnel
6 that worked on this, and I say that in all sincerity.

7 I have obviously concerns and issues that I'll
8 raise today and that are dealt with in more detail in
9 the prefiled testimony with the rulemaking proposal,
10 but in some respects I liken them to trying to carry
11 the ball the extra ten yards as opposed to the 90
12 yards the Agency already traveled. Because they are
13 in the nature of that kind of hopeful improvement in
14 the Agency's proposal.

15 Let me go straight to the substantive issues
16 without any background, because I think the Board
17 Members are familiar with who I am, having testified
18 before twice in the UST proceedings.

19 I think that the Agency is to be commended for
20 taking the approach it has in terms of tiering, and a
21 lot of the concepts that go into the regulation are as
22 advanced as anywhere in the country. And maybe, you
23 know, if the regulation was adopted with little or no
24 change probably as advanced as anyone in the country.

1 This does not mean that the proposal can't be
2 improved upon, and I've identified a couple of basic
3 issues that cut across the proposal in several
4 different ways.

5 When you look at the tables themselves, if you
6 just sort of stand back and take an impression as to
7 kind of look at the Tier 1 tables, what you're struck
8 by is that the risk to groundwater pathway will
9 control 99.9 percent of the time, because of the way
10 the values are set.

11 And there's a reason for that that relates to the
12 equations that were used to run the Tier 1 tables,
13 which is the SSL equation.

14 That equation in the Agency's proposal assumes a
15 very conservative, extraordinarily conservative set of
16 facts, which is that someone is actually drinking the
17 water right at the source of the contamination, which
18 is in turn what produces those very, very low numbers.

19 I mean it's not unusual for certain compounds here
20 to see that the risk of ingestion is a thousand times
21 or ten thousand times the risk of migration to
22 groundwater and then ingestion. In other words, that
23 the value of the soil that we will let someone eat,
24 actually eat is actually set in the Tier 1 tables is

1 much, much higher than the possible risk to
2 groundwater which itself is, you know, requires
3 transmission.

4 That's simply a function of the way the models
5 run, and I think that that could be improved upon by
6 taking the ASTM model which the Agency endorses and by
7 implementing it partially for Tier 1 purposes.

8 And I submitted the tables that do that. And in
9 order to run that model and to generate those tables
10 obviously as with all the models, you have to make
11 certain assumptions.

12 I chose my assumptions in two priorities. The
13 first part was to follow the assumption that was made
14 elsewhere in this rulemaking. In other words, the
15 default values for running the table that I generated
16 first and foremost used any default value that was
17 endorsed by the Agency here.

18 There's still a few values that don't have default
19 values at that point. They don't have any value
20 that's been endorsed by the Agency in this proceeding.

21 For those values what I fell back upon were the
22 default values that the Board had selected in 1994 in
23 the UST rulemaking. So with those clarifications I
24 generated a table that's attached here using the same

1 commercially available software that runs the Agency's
2 proposal and that the Agency had.

3 The Agency I know from the response document that
4 they've submitted today or that they're going to
5 submit today, the Agency's not endorsing the idea of
6 adding a Tier 1 table using the ASTM model, but I
7 think that one would be very, very helpful to the
8 regulated community for a number of reasons.

9 What you find when you run the equations is that
10 one of the most important characteristics in terms of
11 changing the result is the distance you have from the
12 source to the point of exposure. And in the real
13 world people are going to evaluate problems looking at
14 those distances.

15 In the UST program by statute they are allowed to
16 look at a distance 200 feet away from the source, so
17 that I think your rulemaking in order to implement the
18 UST program to its fullest potential ought to have
19 that possibility built into the Tier 1 table as you
20 did in 1994, which when you generated a distance based
21 table like the one that I submitted.

22 In other ways I have suggested some changes in the
23 Agency's proposal that would allow people to be more
24 -- to use distance in even Tier 1 evaluations.

1 If you do so you often produce profoundly
2 different results in the cleanup level that will need
3 to be achieved. This can only result in a savings of
4 money and time for people, because instead of having
5 to go through Tier 3 or Tier 2 analysis, hiring
6 consultants, hiring lawyers, the answers will be right
7 there. And while that may mean less work for some of
8 the people in the room, myself included, I think it's
9 actually a result that's in Illinois' interest.

10 Contrary to what the Agency has said in its
11 rebuttal document though, I'm not suggesting that you
12 abandon the SSL model or that you abandon the tables
13 that it generates. I'm just saying that if you're
14 going to recognize a system where in Tiers 2 and 3
15 these models can be used as equivalents, why not allow
16 them to be used as equivalent at Tier 1 also.

17 Another group of problems that identify with the
18 Agency's proposal relates in various ways to the
19 handling of metals. It's kind of ironic because
20 metals have the least ability to migrate in Illinois
21 and actually pose in some ways the least risk. But
22 the current modeling doesn't work very well for
23 metals, and so that it becomes very difficult to fold
24 investment of metals and risk for metal contamination

1 into this. As even the prior witness recognized, some
2 states have just sort of excluded metals from their
3 processes.

4 The Agency has responded to some of these problems
5 by proposing to evaluate metals contamination using
6 the TCLP test in the first instance and make certain
7 other -- incorporating other facets in its proposal
8 that deal with metals issues.

9 The TCLP test was endorsed by the Board in the
10 1994 rulemaking. I think that was a mistake at the
11 time, and I'd hope that the Board reconsider what it
12 did at that time. The reason it's a mistake is
13 because the test isn't designed for this purpose. It
14 really is not designed at all to generate cleanup type
15 numbers.

16 It's designed to assess the risk of putting a
17 given material into a municipal landfill, and if the
18 risk is too high, then the regulatory system requires
19 you to put it into a Subtitle C hazardous waste
20 landfill.

21 But it's evaluating a set of physical conditions
22 that exist within a municipal landfill where the waste
23 would be commingled with municipal garbage. They're
24 not typical -- I'm not going to say impossible in

1 Illinois, but they're certainly not typical
2 conditions, because it's such an acidic environment.

3 There are USEPA tests that are designed to
4 replicate the actual real world physical environments
5 and I have proposed those as alternative TCLP test.

6 For sites with metals problems, this is a
7 significant issue. Because the use of the TCLP test
8 will result in a lot of false positives, because in
9 the initial testing they will be subjecting the soil
10 materials to a very aggressive leaching test that
11 isn't actually realistic. And they will get values
12 back that suggest that there's a problem, when in fact
13 no problem exists in the real world.

14 And if they used the rain water based leachate
15 test, they would not find a problem with the site
16 conditions, it would not actually pose a risk. The
17 test overstates the degree of risk that's present.

18 The Agency's response in part, you know, has been
19 to look at the different pH's of the materials that
20 you use in a test. Actually when you look at the
21 Agency's response, the standard rain water leachate
22 test that USEPA uses assumes an acid rain pH that's
23 right within the means that the Agency submits are
24 appropriate.

1 So I think that there's, you know, every reason to
2 endorse the more appropriate scientific test, which
3 would be an acid rain or method 1312 type test. One
4 of the cites in my testimony was to the USEPA document
5 that was to provide technical assistance for
6 implementing the TCLP test, and I cited to the fact
7 that that test is not designed for use in a risk
8 assessment type situation like we have here, which was
9 USEPA's description of its own test.

10 As the Agency notes in its questions, this is in
11 fact a regional document, it's not from headquarters.
12 I think it's from Region 2, I'm not sure what
13 difference that makes. It's about two and a half
14 inches thick, and a lot of work went into it, and it's
15 been used nationally. It just happens to be that it
16 was generated by that particular region.

17 And as the Agency requested, I have it available
18 here today for them if they wish to look at it.

19 On the topic of risk levels, as with the prior
20 witness, I endorsed or suggested to the Board that it
21 modify the proposal to incorporate somewhat different
22 risk levels. The Agency points out in its rebuttal
23 document that the statute requires in this instance
24 that the Board use a one times ten to the minus sixth

1 or one in a million cancer risk level for residential
2 use scenarios. Obviously that's correct.

3 Your choices are not unconstrained here. The
4 statute requires you to use that particular risk level
5 for that scenario.

6 I would note a few things though. The risk to
7 groundwater pathway is not in any way dependent upon
8 the use of the property. So I don't think the Agency
9 -- the Board's discretion for the risk level for the
10 risk to groundwater pathway is constrained in any way
11 by the statute. The risk to groundwater numbers are
12 identical, whether it's residential property or
13 industrial property, because it simply doesn't affect
14 the calculation at all.

15 Even USEPA in the comments that it submitted on
16 the draft rule suggests that the Agency consider a one
17 times ten to the minus fifth or one times ten to the
18 minus fourth level. That is overwhelmingly the trend
19 in the country now, and you would be acting contrary
20 to that trend to adopt a one times ten to the minus
21 sixth level, particularly for industrial and
22 commercial properties.

23 It simply -- that doesn't mean that it's wrong, I
24 mean this is a policy question in its purest sense.

1 How much risk are we as a society going to pay to
2 accept and how much risk are we going to pay to
3 correct.

4 And you know, I'm not prepared to say that one is
5 better than another. I don't think I want to play
6 God. But I think that a choice of a risk level of one
7 times ten to the minus fifth or one times ten to the
8 minus fourth for industrial properties is one that the
9 Board could be comfortable is consistent with other
10 states that have looked at this issue.

11 No one has looked at this issue that I can see in
12 a way that is as comprehensive as the Board is being
13 asked to do here. When I say that other programs have
14 looked at this issue, they have done so in specific
15 areas. They may have considered it for their drinking
16 water regulations. They may have considered it for
17 their surface water regulations. So it's in various
18 parts of their programs that they have considered
19 this.

20 But the list is really quite long. And I think
21 that the -- you know, even beyond the list that I had
22 submitted in my testimony, which was the states of
23 Massachusetts, Maine, Minnesota, Ohio, Wisconsin,
24 Delaware and Texas as endorsing a one times ten to the

1 minus fifth risk level, as well as California, you
2 know, subsequent research I've learned, you know,
3 Oregon, Connecticut, Georgia and Maryland as
4 additional states.

5 It is the far more common approach at this time.
6 It would require very minor tinkering with the
7 proposals. It would require rerunning the Tier 1
8 tables for the commercial and industrial properties
9 and for risk to groundwater.

10 But I think that that would be well worth it,
11 because what you will find is that as people proceed
12 to the other tiers, that's going to be one of the
13 first things that they do. And the Agency has already
14 told us that it's not going to be -- it's not going to
15 oppose that effort. So why not build it into the
16 regulation from the beginning so that we don't have to
17 have that expensive process unfold.

18 The Agency poses a really interesting policy
19 question in response to this observation of mine and
20 the prior witness's about the risk level, which is if
21 we have a one times ten to the minus sixth risk level
22 for residential use, why should we have -- why should
23 we expose an industrial worker to a higher risk level?
24 Why should we have that person only protected to one

1 times ten to the minus fifth or one times ten to the
2 minus fourth.

3 You know, once again this is a pure policy
4 question, but I can suggest at least a couple
5 responses that come to my mind for how to evaluate
6 that.

7 First of all, the exposure assumptions for the
8 industrial worker, the commercial worker, include the
9 assumption that person works at the site for 25 years,
10 it's virtually unheard of in our society that time,
11 and this trend is going in the other direction. Very,
12 very few people work at the same job for 25 years.

13 In addition, I think that if you are employed at a
14 site, and you have, you know, a financial relationship
15 with your employer, you have a relationship with the
16 person who probably caused the problem or at least
17 under the statute is given liability for the problem
18 in some respects.

19 In a residential scenario if you're living in a
20 house on a contaminated site the odds are very, very
21 good that you had absolutely nothing to do with that.
22 And it may be appropriate to give that person
23 additional protection in part, because just the moral
24 sense that they had nothing to do with this problem in

1 all likelihood.

2 They find themselves living there, or they find
3 themselves moving in after the cleanup has been done,
4 but they had nothing to do with its original or the
5 original contaminant dispersion. Whereas the business
6 that's on the site much more likely had a connection,
7 a factual connection, to what happened there.

8 And because of worker right to know laws and
9 because of OSHA's oversight of the employee-employer
10 relationship, there are other protections for the
11 workers that are not in place for residential use.

12 And we have very few statutes or regulations that
13 in any way protect residential use or advise
14 residential users of the risk to buying the property.
15 We have for the first time in the last year something
16 on that topic for lead paints for residential
17 purchasers, and we have an Illinois statute that
18 requires very limited exposure to residential buyers.

19 But there really is no mechanism to protect
20 residential people. There are mechanisms to protect
21 employees, and the Board should be comfortable in
22 relying upon them, that they will succeed in their
23 mission.

24 That's one of the reasons why I would evaluate

1 those circumstances differently and why I think that
2 as other states are doing, that the Board should use a
3 one times ten to the minus fifth or one times ten to
4 the minus fourth risk level for industrial and
5 commercial scenarios.

6 We talked at some length in Chicago in connection
7 with the Agency's testimony about the next topic in my
8 prefiled testimony, which is filtering groundwater
9 samples. In the Agency's response to that, the
10 Agency's basically saying it's not asking the Board to
11 resolve this question as to whether groundwater
12 samples should be filtered or unfiltered for metals.

13 I think that would be a big mistake not to resolve
14 this question. Because all you will do is leave the
15 Agency and the regulated community in the same locked
16 horns position that we have been in since the Part 620
17 regulations were promulgated.

18 And it really would make it impossible to
19 implement the rest of the program if you don't know
20 how to test, you don't know how to evaluate the
21 results you get. If you don't know whether you're
22 supposed to be filtering the groundwater samples, you
23 cannot possibly know whether you're comparing the
24 right data to the values in the table.

1 It's as simple as that. I think if the Board does
2 not answer this question really it's doing the
3 regulated community a disservice.

4 My testimony outlines the reasons why I think
5 first that filtering is in fact what the Board adopted
6 historically, that you should filter groundwater
7 samples for metals. That was the Agency's position
8 and the testimony it offered in the support of 620.
9 It is the position of all of the groundwater sampling
10 guide books that are incorporated in 620.

11 And I've laid that all out in my testimony in
12 detail. I'm not going to repeat it here. And it in
13 fact makes sense as a common sense matter.

14 Groundwater that is turbid is not palatable,
15 people don't drink it. If you install a well in a
16 zone that is that turbid, you don't drink it. And
17 that it simply is a common sense matter. It also
18 makes sense to use filtering as a way of assessing the
19 risk to the potential drinker of the water.

20 At page 14 of my prefiled testimony I highlighted
21 one problem, which was that there's quite a large
22 number of chemicals for which you can't do the Tier 2
23 analysis. And the Agency's response in part is that
24 most of those are materials for which there are no

1 inhalation values, because there is not perceived to
2 be a risk from that chemical through the inhalation
3 pathway.

4 I agree with that. I pointed that out in my
5 testimony. I think the rule out ought to be amended
6 then to say that you don't need to look at that
7 pathway for those chemicals. I mean if we're not
8 going to bother to put values in the tables so that
9 someone could run the formulas, we also ought to tell
10 them I think that they don't have to look at that
11 pathway for that particular chemical. And that could
12 be done just a simple footnote in the table.

13 We had some discussion and then some attempted
14 artwork at the last hearings on this concept of
15 straddling groundwater units. I put forth a proposal
16 which as I said at the time of the questioning in
17 December was just simply one of many ways you could
18 resolve this issue.

19 The Agency's response document doesn't address
20 this issue, so I don't know whether they agree or
21 disagree with my proposal. But once again I think
22 this is an issue where there would be a lot of
23 efficiency to the Board resolving this question now
24 and telling the regulated communities what to do.

1 Because otherwise we continue to have these sort
2 of animated debates with the Agency that just chew up
3 time and money where there's obviously a difference of
4 opinion about how to apply what the Board did
5 historically in Part 620 for groundwater systems that
6 straddle this 10 foot line below the ground surface.

7 My proposal was simply to look at the, you know,
8 relative portion of the groundwater unit that's above
9 and below the ten foot line and then, you know, very
10 simply the ones that have most of their groundwater in
11 the Class II portion of the zone put into Class II,
12 and if they have most of their groundwater in the
13 Class I portion, put it in Class I. You know, just
14 use that relative proportion.

15 One of the tremendous benefits of the Agency's
16 current proposal was the pathway exclusion rules which
17 represent some very advanced thinking about trying to
18 define the circumstances under which people don't need
19 to look at pathways and to do it in a concrete way as
20 I had urged in 1995 in the UST rulemaking hearing.

21 I think in some respects they've drawn the rules
22 too narrowly, and that what will happen is that we'll
23 end up with, you know, a system where we have
24 properties that have very, very frequent deed

1 restrictions.

2 24 goes back to what I said at the beginning about
3 the Tier 1 tables. When you looked at Tier 1 tables
4 it's risk of migration to groundwater that controls
5 the responsible parties' actions in most instances.

6 In other words, to rule that out and rule that
7 pathway out, exclude that pathway, you're going to
8 need institutional controls. That will become a very,
9 very common occurrence for industrial properties, and
10 what we will have is a system where we have a lot of
11 time spent filing and monitoring these types of
12 institutional controls when, you know, they may not
13 always be necessary and there may be other ways to do
14 it.

15 And I've identified a few of them in my testimony.
16 One that I would recommend particularly is the idea
17 that the property owner themselves be able to exclude
18 the risk to groundwater pathway if they're willing to
19 restrict their property so that it's not ever used for
20 groundwater purposes, in other words, for drinking
21 water purposes, that ought to be a type of deed
22 restriction. If we're going to endorse deed
23 restrictions as a way of solving this problem, that
24 ought to be the type of deed restriction that is

1 allowed under the regulations so that, you know, if --
2 if I don't want to get into dealing with all of the
3 municipalities that may be within 2500 feet of my
4 site, and that could in the suburbs and Chicago be
5 quite a large number, because you could easily cross
6 into many, many suburbs in a half mile radius.

7 I could say that my property won't be used for
8 drinking water, and therefore I can move my point of
9 exposure for groundwater purposes out to the property
10 line, because distance makes such a profound distance
11 in attenuation processes.

12 The risk to groundwater cleanup numbers will be
13 very, very different if you allow a person to do that.
14 Because they will now be able to determine that point
15 of exposure at their boundary. That will give them
16 distance for attenuation and the natural processes to
17 occur such, and that will in turn generate a much more
18 efficient approach to the site.

19 If you're in a community where there is no
20 groundwater ordinance, in other words, there is no
21 ordinance that prohibits the use of groundwater, and
22 you are in a transactional setting in particular where
23 you don't have time to go lobby your city council or
24 maybe to lobby the city councils of the five

1 communities surrounding your property to adopt an
2 ordinance, in a transactional setting you could remedy
3 this problem very quickly by drafting a deed
4 restriction, having both parties endorse it, and
5 having it signed and put on the record. It provides a
6 very easy way to accomplish the same thing, which is
7 to make sure that no one uses the water on this
8 property, and therefore to achieve a more efficient
9 result from the cleanup perspective. That also is
10 useful in the real world where, you know, transactions
11 unfold with lightning speed these days courtesy of
12 faxes and modem transmissions.

13 Having to rely upon all of the municipal
14 governments within the half mile radius to have
15 adopted an ordinance is really very, very cumbersome
16 and will make that exclusion process very difficult.

17 I also commented on the -- what the Agency now
18 calls the speed limits in 742.305(c) through (e),
19 which are the limits on pathway exclusion for
20 reactivity, toxicity and pH.

21 In other words, if your site would violate your
22 reactivity PL or toxicity characteristics, then you
23 cannot use the pathway exclusion rules.

24 In the Agency's description of why it endorses

1 these proposals, it articulates them as sort of a
2 speed limit, that, you know, we don't want sites to
3 exit the program if they have soil behind it that's
4 reactive to these numbers or if we have soil behind
5 it that has a pH of these numbers.

6 And the second issue that the Agency raises is
7 that the models that are involved here don't operate
8 if the site characteristics are within these
9 boundaries. In other words, if the site has these
10 characteristics and the models don't work properly.

11 John Sherrill testified to that in Chicago, and I
12 went back to the models, and I can't find anything in
13 them where that's the case. I can't find any
14 assumption in the models that's violated by the
15 presence of those site conditions. And I'd urge the
16 Agency if that is -- if there's actual support,
17 citation support for that, that it provide it, because
18 I just can't find it. It may be there, this is
19 certainly complicated enough, I'm not going to say I
20 didn't miss something, but I just don't see it. I
21 don't think that you violate the restrictions in the
22 model by operating them in these environments

23 As for the speed limit notion, that you don't want
24 sites with a pH below 2, that may make tremendous

1 sense. But if it's true that it makes sense, this is
2 misplaced, because it isn't a pathway exclusion issue.
3 It's just an overall site cleanup issue.

4 Imagine you have two sites. One decides to
5 exclude pathways so they have to look at the pH. At
6 the same time they have to look at reactivity, they
7 have to look at these things.

8 The other one does not exclude any pathways and
9 they clean up whatever their contaminants of concern
10 are, or they show that they don't have to do so and
11 they're done.

12 The site that didn't exclude any pathways may
13 violate the reactivity, the pH toxicity list, they
14 might just not have looked at it because they didn't
15 choose to exclude any pathways, they're not required
16 to. If this is really going to operate as a speed
17 limit, in other words a sort of generic start that's
18 going to apply everywhere, then it's misplaced in the
19 regulation.

20 I'm not sure it should operate that way. I think
21 that pH for example, reactivity certainly have a lot
22 to do with some of the, you know, human exposure
23 routes such as injection. I mean you don't want -- or
24 dermal contact routes, but I'm not sure they have much

1 to do with migration of groundwater.

2 So if you make them a generic standard that
3 applies everywhere and the site risk is risk to
4 groundwater, they may not actually be relevant to that
5 risk.

6 But by making them apply to every single pathway
7 exclusion, I'm not sure that really makes logical
8 sense. And I think it either needs to be elevated to
9 apply to everywhere, which I'm not sure I endorse,
10 because I don't think it really relates to every site,
11 or the individual characteristics ought to be tailored
12 to the pathways that they actually affect.

13 In other words, pH ought to be tailored to the
14 human contact pathways, not risk of groundwater
15 pathways. And the reactivity the same way. Toxicity
16 probably the same way.

17 All of these are conditions where if they're
18 having an affect on the site data, the sampling data,
19 that will show up in the data itself. So we're not
20 going to miss these issues, they're going to be there.
21 Their impact will be reflected in the site data. We
22 have an additional concern, sort of speed limit
23 concerns that the Agency recognizes, then I think it
24 just -- they're misplaced as a pathway exclusion rule.

1 One of the pathway exclusion provisions requires
2 you to get this ordinance for the ingestion of
3 groundwater pathway prohibiting use of groundwater as
4 a drinking water source within a half mile of the
5 site. And I asked in December if the Agency wanted
6 that to apply even to jurisdictions that were a half
7 mile upgradient of the site, and the Agency's response
8 was yes, because the site groundwater might change.
9 The flow direction might change from north to south,
10 therefore, you know, we want you to look even a half
11 mile upgradient for an ordinance.

12 I think before you make someone do that you ought
13 to have a real basis to think that the groundwater at
14 their site might change. And the simple way of
15 dealing with it is to change the language so that you
16 look at 2500 feet downgradient, unless there's a
17 reason to think that the term downgradient needs to be
18 expanded in some way to include a broader radius.

19 But making everybody get an ordinance from 2500
20 feet away in the upgradient side is very cumbersome
21 and very burdensome, and it's going to really
22 undermine the utilities of the whole pathway exclusion
23 rule for groundwater.

24 On page 23 of my testimony I discuss zoning as an

1 institutional control. As I said, if you're going to
2 allow an ordinance to operate as an institutional
3 control, that the community, the people living within
4 the ordinance will not use the groundwater for
5 drinking water purposes, you ought to allow other
6 kinds of ordinances, and zoning is obviously one of
7 those.

8 Not all zoning classifications exclude residential
9 use, but some do. And what I proposed was that if the
10 zoning classification excludes residential use, as
11 that term is essentially defined by the Board here,
12 and obviously that's still subject to some revision,
13 that you ought to recognize that as an institutional
14 control.

15 The Agency's response was to say that, you know,
16 sort of in some ways to mischaracterized what I said,
17 which was to note that I admitted that some zoning
18 restrictions don't exclude residential, even though
19 they favor industrial or commercial use.

20 If the zoning isn't specific enough, then you
21 can't use this as an institutional control. But if
22 the zoning in your particular community is specific
23 enough that it really does exclude residential use as
24 that's eventually defined here, then why not use it as

1 an institutional control. I just don't see why not.

2 It could be subject to all the same restrictions
3 that you have for ordinances under the groundwater
4 exclusion pathway, but there's no reason not to use
5 the zoning if in fact it is sufficient to exclude
6 residential use.

7 And obviously that's going to be a case by case
8 thing. Communities write their zoning rules
9 differently. Some may even modify them in response to
10 the Board's rule in order to allow people to take
11 advantage of this once we tell them what the rules
12 are.

13 But if the zoning rules are specific enough we
14 ought to let them use it.

15 I noted in my testimony that one type of
16 institutional control that finds a lot of favor around
17 the country right now is some sort of conservation
18 property designation. The basic theory is if you
19 limit the use of the property in perpetuity in a way
20 that eliminates certain exposure pathways, you
21 eliminate residential use or you eliminate even
22 industrial/commercial use so that even that pathway
23 doesn't make any -- is no longer applicable.

24 And I suggested that the Board include that as a

1 specific type of institutional control that would be
2 recognized here.

3 The Agency responded by pointing out that, you
4 know, we had historical problems in Illinois, in one
5 particular site in southern Illinois where it had been
6 a munitions development, munitions factory development
7 and now was a park area, and that this had created a
8 number of significant problems.

9 I'm not saying, you know, obviously what we did
10 historically is not a very good monitor here, because
11 that was done without much consideration at all of the
12 sorts of issues that have been debated here at length,
13 and any future use of a conservation easement as an
14 institutional control, these issues would be aired
15 very, very fully.

16 But you can design a conservation easement and you
17 can design a remediation for the property that where
18 those two mesh very, very effectively and often create
19 green belts or buffer zones between manufacturing
20 areas and residential areas in a way that really
21 accomplishes a lot of good for the community and
22 allows the property owner, the property operator to
23 pursue a more efficient solution to the problem that
24 benefits the surrounding community.

1 The background question is one that I looked at
2 also, really the last point I've got here. There's
3 another profound policy question in here, and I don't
4 think it's completely addressed by the errata that we
5 saw this morning.

6 The statute that we're implementing here doesn't
7 limit background to geologic processes. It expressly
8 recognizes that the background can be the result of
9 manmade processes. The policy question then becomes
10 whose manmade processes.

11 And how do you mesh the definition of site, which
12 is the most important definition for this purpose in
13 some ways, with whatever rules you adopt for
14 background purposes, because, you know, as I pointed
15 out a couple of examples here, is it background if you
16 are situated nothing to do with being the source of
17 the contamination, but it is now ubiquitous in your
18 neighborhood, even if it's manmade, it may in fact be
19 background at that point for lots of purposes.

20 Are you unable to use the background if you used
21 to be -- if your property used to be part of the
22 larger industrial complex, and so therefore your site
23 historically, although not currently, was part of the
24 source? I think these are very tough questions, and I

1 don't think the Agency's response this morning is
2 consistent with the statute.

3 And I think this is something where, you know,
4 someone on the Board needs to just sort of focus and
5 take this issue up and really think about the policy
6 implications, because they're profound.

7 Because you have an almost limitless number of
8 possibilities out there. They're all going to occur
9 in the first year, because just the nature of what's
10 going on. When you talk about background and you try
11 to relate it to the source of the contamination, you
12 have to define the time period you're looking at.

13 Are you looking at the source today, the source
14 historically, was the property part of that historical
15 source, it creates very difficult questions.

16 Using background as a cleanup criteria is not --
17 essentially operates parallel to the other risk system
18 in the rule, and the only link I can think of between
19 them is the notion that if the background is truly X,
20 and the community -- there's no evidence that the
21 community is affected by X, then you have sort of a
22 laboratory confirmation that you can live with X in
23 the real world.

24 And the Agency's response was -- in the document

1 that they proposed was sort of prepared. Background's
2 not necessarily risk free. Well, it's not that it's
3 risk free. If there is a demonstrated effect from it
4 then the rules will allow the Agency to override all
5 that by requiring you to go in and do an immediate
6 response.

7 But if there's no demonstrated effect in the
8 background, then we sort of have the laboratory
9 confirmation I think that the background is in fact
10 related to risk. And that in this instance, in this
11 particular location, and that the use of background is
12 also consistent with the rest of the risk-based rules.

13 I submitted a bunch of other textural changes,
14 I'll leave those for the Board to just look at. They
15 try to implement the things that I talked about.

16 The only change that I would really want to even
17 discuss now is the change to the definition of
18 residential property, which continues to be written
19 pretty loosely, and once again here I think if the
20 Board articulated how it wanted to define it, the
21 participants could write a definition that worked.

22 But right now we're all struggling with trying to
23 write definitions that -- where we don't really know
24 where we're trying to go.

1 I suggested some -- a change that recognized that
2 if you're going to define residential property, and so
3 much of the system runs off of that definition, that
4 you try to make the definition match the assumptions
5 that are in the models.

6 So I suggested making it property that's used for
7 habitation by the same children, in other words, not a
8 hotel, okay, not a motel, it's something that's used
9 repeatedly by the same people. Because you know, the
10 exposure assumptions in the model are that someone
11 lives there for 30 years. It's shorter for children
12 obviously because part of that duration they're not
13 children.

14 But if you have repeated exposure by the same
15 people, then I think that fits the model, and so
16 therefore the definition works with the model.

17 And I also tried to deal with the fact that some
18 of the facilities that are listed here, educational
19 facilities, health care facilities, child care
20 facilities, or playgrounds, occur in indoor settings,
21 and sometimes they occur in outdoor settings. And
22 that the exposure to even a child at that location is
23 very, very different in those two different
24 situations.

1 I mean we have the Discovery Zone concept now
2 where you have indoor playgrounds for children, where
3 it's a playground under some definitions, but it's not
4 outdoors and it's not in the models. If you looked at
5 the assumptions in the models, this won't make any
6 sense to call that a residential property.

7 And so I suggested trying to weave in the concept
8 that these were outdoor locations, because otherwise
9 it really doesn't take back to the models very well.

10 I thank you for taking up so much time. I realize
11 I spoke probably a lot longer than some of you would
12 have wanted at this point this close to lunch. But
13 obviously I think it's important.

14 And as I said, the Agency did a tremendous job
15 here to bring us to the point we are today. I'm
16 trying to suggest some issues where with some
17 additional clarification and attention we can get even
18 further. Thank you.

19 MS. McFAWN: Thank you, Mr. Reott.

20 HEARING OFFICER DESHARNAIS: Mr. Reott, did
21 you wish to have your prefiled testimony which has
22 been marked as Exhibit Number 18 entered?

23 MR. REOTT: Yes.

24 HEARING OFFICER DESHARNAIS: Is there any

1 objection?

2 MS. ROBINSON: No objection.

3 (Exhibit 18 was admitted.)

4 MR. REOTT: Could I clarify one thing? I had
5 done something like the previous witnesses where I had
6 collected all these state regulations. Unfortunately
7 that box did not make it to Springfield today, and so
8 I don't have that with me.

9 I'd like to submit that though, because I think
10 that it would certainly be a whole lot easier for the
11 Board than having someone go out and try to find all
12 these regulations, if I could submit that in one
13 volume.

14 But unfortunately the package didn't make it here.

15 HEARING OFFICER DESHARNAIS: The record will
16 remain open for public comment for 35 days from --

17 MR. REOTT: I can do it in that fashion.

18 HEARING OFFICER DESHARNAIS: Okay, the Agency
19 has submitted one prefiled question for Mr. Reott.
20 We'll proceed with that. Hold on one minute, please.

21 Mr. Reott, you have several attachments to your
22 testimony. Did you also wish to have those admitted
23 into the record?

24 MR. REOTT: Yes.

1 HEARING OFFICER DESHARNAIS: Would you have
2 any objection to those being admitted as a separate
3 exhibit?

4 MR. REOTT: No. Would you like me to submit
5 them in that fashion then? Because they're currently
6 just bound together.

7 HEARING OFFICER DESHARNAIS: That would be
8 helpful.

9 MS. McFAWN: As a group exhibit would be
10 fine.

11 MR. REOTT: I'll do that then.

12 HEARING OFFICER DESHARNAIS: Is there any
13 objection to the admission into the record of the
14 exhibits attached to Mr. Reott's testimony?

15 MS. ROBINSON: No objection.

16 HEARING OFFICER DESHARNAIS: The exhibits
17 attached to Mr. Reott's testimony will be admitted as
18 Group Exhibit 19, and they consist of the following:
19 Attachment A contains a proposal for Table G Tier 1
20 soil objectives for the migration to groundwater
21 pathway.

22 Attachment B consists of a table entitled Missing
23 Parameters for Calculating Tiered Approached
24 Corrective Action Objectives.

1 And Attachment C consists of a modified version of
2 a subpart of the Illinois Register version of the
3 proposal which includes a Table G modification. These
4 will be admitted as Group Exhibit 19.

5 (Group Exhibit Number 19 was admitted.)

6 HEARING OFFICER DESHARNAIS: If the Agency
7 would proceed with its prefiled question.

8 MS. ROBINSON: At the bottom of page six and
9 the top of page seven of your testimony you reference
10 a USEPA document entitled Technical Assistance
11 Document for Complying with the TC Rule and
12 Implementing the Toxicity Characteristics Leaching
13 Procedure, May, 1994.

14 It is the Agency's understanding that this is a
15 regional document. Would you please provide a copy of
16 that document?

17 MR. REOTT: As I said, it is a regional
18 document, it was prepared by Region 2 on behalf of
19 USEPA. I have a copy here, and after we talked this
20 morning I'll provide you with a full copy of that. I
21 wasn't sure if you wanted the whole thing given its
22 length, but I'll do that. If you want me to submit it
23 to the Board I can do that, too.

24 MR. RAO: Okay.

1 MR. REOTT: Why don't we just call it Exhibit
2 20.

3 HEARING OFFICER DESHARNAIS: Actually if you
4 could submit that along with the other exhibits, that
5 will come into the public comment part.

6 MR. REOTT: Okay, I can do that.

7 HEARING OFFICER DESHARNAIS: Mr. Rieser.

8 MR. RIESER: If Ms. Robinson is done, I don't
9 know if she was.

10 MS. ROBINSON: We have nothing further right
11 at this time.

12 MR. RIESER: I just had one question of Mr.
13 Reott. In your discussion about the pH and reactivity
14 issues with respect to 742.305, am I correct in
15 characterizing your testimony that it's your belief
16 that those are unnecessary to the purposes of 3035 and
17 that you were not proposing that the Board adopt those
18 types of testing to apply elsewhere in the regulation?

19 MR. REOTT: It's a little more complicated
20 than that. I don't think they're appropriate in 305
21 because they don't relate generically to every pathway
22 exclusion, and 305 is the provision that affects all
23 pathway exclusion.

24 They don't belong there. If you made them

1 generically applicable to every site cleanup, I think
2 you'd run afoul of the statutory definitions that
3 you're stuck with on contaminants of concern, because
4 you would be forcing people to look at things that are
5 not contaminants of concern under those definitions.

6 The other alternative placement for these
7 provisions would be to look at them individually and
8 decide which pathways they really relate to and stick
9 them into the 310 or 315 rules, whatever would be
10 appropriate, or like the inhalation and ingestion
11 pathways as requirements to be met for the exclusion
12 of that particular pathway.

13 But they don't have anything to do with exclusion
14 of the groundwater migration pathway, so I don't think
15 they would be properly placed in that particular one.
16 I have a --

17 MR. RIESER: But you're not proposing that
18 the Board adopt them as generically for the entire --

19 MR. REOTT: No, in fact I think it's probably
20 contrary to statute to do that.

21 MR. RIESER: Thank you very much.

22 MR. RAO: In the way you read the proposed
23 rules do you think that it applies to, you know, the
24 other, the tier evaluation and other requirements of

1 the rule, or does it apply just to Subpart C the way
2 it's proposed now?

3 MR. REOTT: The way it's proposed now it only
4 applies to Subpart C, so no one even has to think
5 about this issue unless they exclude a pathway, which
6 logically doesn't make much sense if it's going to
7 operate as a speed limit, which is the Agency's phrase
8 for it.

9 MR. RAO: Do you think that --

10 MR. KING: Let me just jump in, because
11 that's not quite correct either, because you only have
12 to use it for pathway exclusions under Subpart C to
13 allow other pathway exclusions and that's not part of
14 that.

15 MR. RAO: I was going to get to that to see
16 if he was aware of that, if he allows for pathway
17 exclusion also where you don't have to --

18 MR. REOTT: That's right, but once you get to
19 Tier 3, if you're in a transactional contest you've
20 lost, because you can't figure out the answer quickly.
21 And you can -- you've already lost a lot of the
22 advantage in the system and in a transactional
23 context.

24 If you have a big manufacturing site, you're

1 Illinois Power, that's not an issue for you. You can
2 go to Tier 3 and you're very comfortable doing that.
3 It's just that certain people going to Tier 3 it's not
4 going to give them much comfort, because they can't do
5 it in the timeframes they're operating under.

6 MR. KING: Can I just jump in? Mr. Reott,
7 what's the basis of your statement saying that? You
8 know, we've --

9 MR. REOTT: 15 years of experience in
10 environmental issues and transactions.

11 MR. KING: That people can't move through a
12 Tier 3 process the way the Agency's laid it out here
13 in an expeditious fashion given the time limits that
14 we're restricted by under the various regulatory
15 programs that we make these decisions under?

16 MR. REOTT: You have time limits that apply
17 if someone goes into your voluntary program, your
18 Brownfield site program. But in my experience a lot
19 of people prefer to deal with these issues without
20 ever involving the Agency.

21 And one of the real advantages of this proposal is
22 people are going to be able to run Tier 1, look at
23 Tier 1 tables and run Tier 2 calculations without ever
24 calling Springfield.

1 And that is a tremendous advantage in a
2 transactional context where frankly the environmental
3 data hits the table in the negotiating room the week
4 before the deal's getting done. And at that point
5 there's no time to come to Springfield, you know,
6 that's just not to -- typically it can't be done,
7 especially in larger deals, because you're looking at
8 sites on such an aggressive time schedule in the
9 modern transactional world where people, you know,
10 announce their deal because it affects their stock
11 price, they want to close their deal in 30 days or
12 less. There just isn't time.

13 And if you go to Tier 3, it's not that Tier 3
14 isn't expeditious, Gary, because it is if you're in
15 the right circumstance. But there's a large group of
16 people out there for whom it's not going to work very
17 well.

18 MS. McFAWN: What you're basically saying
19 they won't wait or maybe even try to get an NFR
20 letter, they'll just presume that they can close the
21 deal with a degree of comfort, that they know the risk
22 now should they buy or want to seek to finance.

23 MR. REOTT: Right. Because they'll know that
24 if you run the models, Tier 2 tells you you're going

1 to come out okay. So, you know, you have a
2 presentation at a meeting and everybody will shake
3 hands and go home happy, because they'll know that in
4 the aftermath of the deal we'll be able to get there
5 and then you'll write contractual provisions that say
6 that you must get there, and that here's what happens
7 if you don't, and maybe you hold some money aside in
8 escrow or something.

9 But there isn't really, because Tier 3 requires
10 Agency approval of whatever it is you're doing to
11 alter the situation. It will be hard, I think the
12 Agency would be hard pressed to respond in the
13 timeframes that would be necessary. And that's just
14 because you don't have the resources for that, you
15 don't have people sitting there waiting to do these
16 things with nothing else to do.

17 MR. RAO: In your testimony in the prefiled
18 testimony on page 20 you say that a site must meet the
19 three limitations that are proposed under 742.305(c)
20 through (e), even when the site is not affected by
21 these three limitations. What do you mean by that?

22 MR. REOTT: Consider the toxicity for a
23 minute. The rule is -- the rule that you must meet is
24 based on using the TCLP test. As I said before, that

1 doesn't have much to do with real world natural
2 conditions.

3 So you subject the site to this artificial very
4 aggressive test that doesn't have anything to look
5 like acid rain falling from the sky, and then it tells
6 you you have a problem, when in the real world you
7 don't actually have a problem because that's not the
8 condition that the real world, you know, the site is
9 actually facing. I mean that's one example.

10 But if the pH of the site or the reactivity of the
11 site or the level of metals in the site is actually
12 affecting things, then it will affect the actual data
13 that you gather. And if they're not affecting things,
14 the rule would require you or would limit your ability
15 to use pathway exclusion when the site conditions are
16 not actually having an impact.

17 MR. KING: But once you -- I mean if I heard
18 you before, you were saying well, people can't go to
19 Tier 3 because it's not timely enough and in a
20 business transaction setting. Well, they're in a
21 business transaction setting, they're free to ignore a
22 Section 305 as well, as long as they're not going to
23 come to the Agency. So I don't understand the point.

24 MR. REOTT: They could, Gary, but lenders in

1 particular are not as likely to do that.

2 MR. KING: Well, a lender in particular is
3 going to want to see an NFR letter from the State,
4 they're going to want an interaction from the State.

5 MR. REOTT: Not on every deal. The bigger
6 the deal, the less likely it is they're going to want
7 to see it, the more likely it is there's not going to
8 be time to do that, and that they're going to do the
9 deal without waiting for that.

10 You're talking about buying a small piece of
11 property, you know, that's very common as you know for
12 the deal to be sort of put on the table and on hold
13 for a while. People come down to Springfield and get
14 an NFR letter. In the large commercial deals that
15 doesn't happen.

16 MR. KING: If a bank is not -- is going to
17 rely on the views of whatever scientific or
18 engineering personnel that are put together, that put
19 together on a team, they certainly are going to be
20 free to ignore what 305 says if those engineers tell
21 them to do so.

22 And if they don't want the State's -- if they're
23 not interested in a State review of the situation,
24 then they certainly aren't going to need to have

1 anything further relative to this 305. But from our
2 perspective we're interested in not seeing an entire
3 system disrupted where the state is required to be
4 involved.

5 MR. REOTT: I'm not trying to disrupt the
6 system, Gary. I'm just suggesting that if you think
7 about the logic of these three conditions, physical
8 conditions, they're -- I think they're not properly
9 placed in here as pathway exclusion restrictions
10 applicable to every pathway, and that you might want
11 to think about redesigning where they're located.

12 I'm not suggesting you ignore these issues or that
13 you, you know, disrupt your system. I'm just
14 suggesting that I think there is not -- this isn't a
15 great placement for these provisions, that's all.

16 MR. RAO: I have one more clarification. On
17 page 22 of your prefiled testimony you refer to flow
18 of water, and you state that water usually flows
19 downhill and it takes unusual circumstance to have it
20 flow any other way.

21 MR. REOTT: Yes.

22 MR. RAO: Are you referring to the surface
23 water or --

24 MR. REOTT: No, groundwater.

1 MR. RAO: To the groundwater gradient.

2 MR. REOTT: Groundwater gradient flows down,
3 yeah. Not downhill, not downhill in terms of what the
4 surface is, it flows downhill in terms of the
5 underlying geologic structure. I mean it's always
6 going to run downhill, it's just that the geologic
7 structure may not mirror the surface, that's all. But
8 it will still go downhill, you know, in the real
9 sense.

10 MR. RAO: Downgradient.

11 MR. REOTT: Downgradient.

12 MR. RAO: Okay.

13 HEARING OFFICER DESHARNAIS: Are there any
14 further questions for Mr. Reott?

15 MS. ROBINSON: Not at this time. I think
16 some of these issues are going to be addressed in the
17 Agency's rebuttal later, so we'll hold off until then.

18 HEARING OFFICER DESHARNAIS: Does anyone else
19 have any questions for Mr. Reott?

20 (No response.)

21 MS. McFAWN: Mr. Reott, are you going to be
22 here this afternoon?

23 MR. REOTT: Yes, I'll be here until you're
24 done.

1 HEARING OFFICER DESHARNAIS: Okay, Miss
2 Robinson, you have referred to the Agency's rebuttal
3 testimony. I believe you have hard copies of that.
4 Would you be ready to have that introduced as an
5 exhibit?

6 MS. ROBINSON: Yes, we would. There are
7 additional copies along the back banister if anybody
8 has not seen that yet, and we have several for the
9 Board.

10 Also for the purposes of the record I don't
11 believe that we reswore any of the Agency witnesses,
12 so I assume that that means that they remained under
13 oath from the previous set of hearings, is that
14 correct?

15 HEARING OFFICER DESHARNAIS: That's correct,
16 that's fine. Do you want to go ahead then and have
17 that marked as an exhibit?

18 MS. ROBINSON: Okay.

19 HEARING OFFICER DESHARNAIS: Okay, the
20 document entitled Agency's Response Regarding Various
21 Aspects of Testimony Raised by Linda L. Huff and
22 Raymond T. Reott dated January 13th, 1997, will be
23 marked as Exhibit Number 20. And does the Agency wish
24 to have this entered into the record?

1 MS. ROBINSON: Yes, we do.

2 HEARING OFFICER DESHARNAIS: Is there any
3 objection?

4 (No response.)

5 HEARING OFFICER DESHARNAIS: Okay, that
6 document will be entered into the record as Exhibit
7 Number 20.

8 (Exhibit Number 20 was admitted.)

9 HEARING OFFICER DESHARNAIS: And at this
10 time we're going to take a break for lunch. We'll
11 take a one hour break.

12 (A recess was taken.)

13 HEARING OFFICER DESHARNAIS: We'll go ahead
14 and go back on the record. Right before the break we
15 entered the Agency's rebuttal testimony as Exhibit
16 Number 20. Does the Agency wish to proceed with that
17 testimony?

18 MS. ROBINSON: As a preliminary matter we had
19 received a letter from USEPA and we had talked about
20 this at the first set of hearings being a public
21 comment I believe, and we said that we would provide
22 copies upon approval of USEPA. And we received that
23 approval, so should I have that marked as an exhibit
24 at this time or is it at the public comments?

1 MS. McFAWN: Were you going to testify about
2 it at all?

3 MS. ROBINSON: We are not going testify on
4 it.

5 MS. McFAWN: We'll just accept it as a public
6 comment.

7 MS. ROBINSON: All right.

8 MR. RIESER: Miss Robinson, do you have
9 copies of this?

10 MS. ROBINSON: There are copies in the back.

11 HEARING OFFICER DESHARNAIS: Okay, this will
12 be made part of the record as a public comment. I
13 believe we're up to Public Comment Number 2.

14 MS. ROBINSON: And then, Mr. Hearing Officer,
15 did you wish to proceed with Errata Sheet Number 2
16 first or the Agency's response?

17 HEARING OFFICER DESHARNAIS: Whichever you
18 prefer.

19 MS. ROBINSON: Let's go ahead and then begin
20 with Errata Sheet Number 2, okay, if we could, and Mr.
21 King is going to summarize the contents of that, and
22 there are extra copies in the back of that as well.

23 MR. KING: Just a brief comment on the USEPA
24 comment. We're in the process of preparing a response

1 to that which we will send back to them. Hopefully
2 we'll have that done within the next 30 days or so.
3 We'll probably have some discussion with them about
4 the contents of what that says.

5 I'm just going to walk through Errata Sheet Number
6 2 on a section by section basis. And the first point
7 is proposed change to 742.110(a), just adding the word
8 applicable at the place we've identified there.

9 When you look at the USEPA comments you'll see
10 that they had made a suggestion for a change at this
11 point in the rules, and we thought that this would
12 provide a little more clarification by just including
13 the word applicable at this point.

14 The next set of changes are to 742.200. These are
15 statutory definitions that we received from the
16 Illinois Department of Transportation. I'll note that
17 we -- that should be underlined material, it is new
18 material, all of that is new material that has not
19 appeared in the proposal prior to this time.

20 The next item is proposed change to Section
21 225(d). And if you'll recall we -- at the first set
22 of hearings in Chicago there was considerable time
23 spent discussing this provision, and there was kind of
24 some concerns about whether what the Agency had done

1 was too limiting.

2 And so we really went back and we tried to figure
3 out a better way to phrase what we had put forth in
4 (d)(1) and (d)(2), and we really couldn't really come
5 up with a very successful approach. So we went to a
6 different approach, where it just really says that a
7 person who is going to composite soil samples or
8 average soil samples relative to the inhalation
9 exposure route, it should say route in there, or soil
10 ingestion exposure route, would meet specific -- the
11 requirements set out here, and it really is kind of an
12 open approach for somebody to submit a specific
13 site-specific sampling plan.

14 MR. RIESER: Mr. Hearing Officer? If we have
15 questions should we hold them till the end of the
16 complete thing or ask them as we go along?

17 HEARING OFFICER DESHARNAIS: Actually it
18 would probably be best on a section by section basis.

19 MR. RIESER: If I may, Mr. King, what are the
20 factors by which the Agency would approve plans?

21 MR. KING: We've listed three factors here in
22 (d). First is that it's going to be a plan that's
23 going to be based on a site-specific evaluation of the
24 site. The second factor is that if you have volatile

1 organic compounds involved, you can't composite those.
2 And then the third factor is that the samples have to
3 be collected within the contaminated area.

4 MR. RIESER: Would you have -- I mean was
5 there some -- would additional factors include
6 statistical validity, representative nature of the
7 samples, use of recognized methodology?

8 MR. KING: We have to think about whether all
9 three of those would be included. I'll just make a
10 note. The ones you said were representative nature of
11 the sample --

12 MR. RIESER: Right. Statistical validity, I
13 originally thought of adequacy but realized that would
14 not do.

15 MR. KING: That would be a bad word. And the
16 third one was --

17 MR. RIESER: Use of recognized methodology.

18 MR. KING: The one out of those three that
19 you suggest that it seems most problematic is the
20 issue of statistical validity, because if that was a
21 requirement then you could end up with sampling
22 regimes that are much greater than the number of
23 samples in order to establish that something is
24 statistically valid than maybe what's really needed.

1 MR. RIESER: Okay.

2 MR. KING: But we could consider the other
3 two and perhaps end up with an Errata 3, which we kind
4 of planned on as this set of hearings concluded to go
5 back and look at any testimony and issues further
6 based on that.

7 MR. RIESER: Okay, thank you.

8 HEARING OFFICER DESHARNAIS: Mr. Watson, did
9 you have a question?

10 MR. WATSON: Yes. Do you have something else
11 to add, Gary?

12 MR. KING: No.

13 MR. WATSON: Okay. A question that I have is
14 how under 225 would the concepts of the ten foot
15 sample limitation for inhalation pathways and three
16 foot for ingestion pathways as set forth in the SSL
17 guidance be utilized at all as part of developing this
18 sampling under 225?

19 MR. KING: I'm not sure I understand.

20 MR. WATSON: One of the issues that we had
21 talked about originally was what kinds of sampling
22 would be required at sites when you were looking at
23 the specific pathways, and one of the questions was
24 well, isn't it -- maybe you only have to -- one

1 seemingly supportable argument could be made for the
2 fact that, you know, if you're dealing with an
3 ingestion pathway then, you know, maybe you only have
4 to sample down to the three feet. If you're dealing
5 with an inhalation pathway you'd maybe only have to
6 sample to ten feet, because those are the sampling
7 requirements set forth in the SSL guidance document.

8 MR. KING: This section is entitled
9 Determination of Compliance with Remediation
10 Objectives. So what we're -- in this section what
11 we're dealing with are environmental context in which
12 you've established some kind of numeric remediation
13 objective.

14 Okay, I think what you're talking about is a
15 situation where you don't have a numeric remediation
16 objective, you're really looking at these distance
17 factors, three feet or ten feet. And that wouldn't be
18 addressed.

19 MR. WATSON: Well, I guess my question is, is
20 it the Agency's position that you have to sample --
21 you have to identify the full extent of contamination
22 at a site and make sure that you meet your remediation
23 objectives at all levels, even when you're dealing
24 with the specific pathways which arguably have some

1 connection to depth of soil?

2 MR. KING: The definition of point of human
3 exposure says it's at the source, unless you have an
4 institutional control that moves that away. So there
5 are -- the assumption is that you are meeting those
6 criteria basically everywhere across the site unless
7 you've got an institutional control that restricts the
8 completion of that pathway.

9 MR. RAO: I have a follow-up question.

10 HEARING OFFICER DESHARNAIS: Mr. Rao?

11 MR. RAO: Mr. King, in response to Mr.
12 Rieser's suggestion you said that maybe it may not be
13 a good idea to include statistical validity as one of
14 the criteria.

15 I was looking at Illinois Steel Group's prefiled
16 testimony where they're suggesting using a statistical
17 method, and the USEPA document test method for
18 evaluating solid wastes. Do you think that based on
19 what's given in the methods it's important to have
20 statistical validity as part of the data that you
21 collect to show compliance?

22 MR. O'BRIEN: I think the data needs to be
23 representative of the site, but I don't think we want
24 to lock ourselves into statistical measures which

1 would require large numbers of samples as --

2 MR. RAO: Statistical validity may not be the
3 right term, but do you use statistical methods to show
4 that the data is representative?

5 MR. SHERRILL: There again to use statistical
6 methods, in the USEPA SSL document they were looking
7 at fairly large sites. And if we were to put that in
8 this section, we believe it would be overly rigorous.
9 I mean we do many sites that are less than a half
10 acre, quarter acre, and to start talking about
11 deriving the number of samples that you need to
12 collect for it to become statistically valid would
13 defeat the purpose, because a lot of people may be
14 able to average their composite just by the fact of
15 taking four samples, you know, I mean without any
16 reference to whether that's statistically valid.

17 MR. RAO: So that what you're saying is to
18 you the statistical method is more dependent on the
19 site, and if it's a very large site then maybe it's --

20 MR. SHERRILL: It would be more applicable in
21 a large site, yes. And we wouldn't exclude that under
22 Tier 3 per se. But we -- we see more of the use of
23 the averaging, the compositing more, and maybe I guess
24 you could say in limited areas of a site.

1 MR. RAO: Okay. As long as it's not excluded
2 as a --

3 MR. SHERRILL: Correct.

4 MR. RAO: -- methodology.

5 MR. SHERRILL: Not be excluding that.

6 HEARING OFFICER DESHARNAIS: Mr. King.

7 MR. KING: Okay, 225(f) was proposed to be
8 deleted just because of the way we've rewritten (d)
9 and (c) as well to allow for -- they allow for
10 alternative methods already.

11 320(c), this is part of a series of changes to
12 make the groundwater ordinance section work better and
13 I'll talk about that later on as we talk about those
14 other changes.

15 405(a)(4) is in response to a specific set of
16 questions at the first set of hearings. It was a
17 point that Pat Sharkey was -- made at length about
18 this subsection. And so we've included some language
19 to address this point.

20 The next three changes on 405(b)(1)(A),
21 405(b)(1)(B), and 415(b) are -- and the changes on
22 Appendix A, Table G, are in response to the questions
23 received at the first hearing from the Site
24 Remediation Program Coalition, and then in response to

1 their prefiled testimony which they had submitted
2 earlier and presented today.

3 What we concluded as we understood the points they
4 were making and the testimony they were presenting, we
5 felt that there was really good reason to -- I'll
6 describe it as meeting them halfway on the point they
7 were making.

8 Our original concern with what was being suggested
9 was that to use the ranges, the range numbers that we
10 had in our Table G from our information that we'd
11 gathered on background data, it was not going to be --
12 would not be statistically correct in terms of
13 establishing a compliance level for purposes of
14 remediation objectives.

15 But, you know, their concept was that well, yeah,
16 you really should be able to establish a compliance
17 objective, compliance remediation objective using
18 background data.

19 So we went back and looked at the data again that
20 we had that supported Table G, and we went from
21 showing it as a range to showing it as a specific
22 point.

23 And the point we picked there was the median
24 point. As Linda Huff correctly stated, that's the --

1 we went to the 50 percent point as opposed to the --
2 you know, in essence before we were at the range could
3 have been interpreted at the hundred percent point.

4 We went there because at this point with the
5 nature of the data we had, and given the different
6 programs and the different quality assurance levels
7 that were used in securing that data, we felt that the
8 point that we were most comfortable with as far as
9 being statistically correct was the median point.

10 So that's what's in Table G. We've corrected that
11 to show instead of range numbers to show median, the
12 median points, which then the way 405 and 415 have now
13 been redrafted, those points could be used as
14 remediation objectives.

15 HEARING OFFICER DESHARNAIS: Mr. Rieser.

16 MR. RIESER: What was the rational for
17 eliminating 415(b)(1) which allowed for excluding a
18 chemical from being a chemical of concern?

19 MR. O'BRIEN: Now that we are allowing the
20 background levels to be used as remediation
21 objectives, it's not particularly relevant that you
22 exclude it in this manner, because it can be --
23 essentially it could be used as a remediation
24 objective.

1 MR. RIESER: Well, I'm wondering, because I
2 think would see you a difference between -- there may
3 be a difference in how things are handled in an NFR
4 letter or in the future between something that you're
5 excluding as a contaminant of concern and something
6 that's identified as a remediation objective.

7 And I think that was the reason that there were
8 differences between those two here, that there may be
9 reasons to -- what you want to in some circumstances
10 exclude it so that it's not a continuing factor that
11 has to be dealt with in an NFR letter or through
12 continuing obligations of some sort.

13 MR. SHERRILL: Our focus kind of on that was
14 on the various programs within the Agency, it gets
15 back to whether a chemical is a contaminant of
16 concern, whereas 742 primarily deals with developing
17 remediation objectives. And because of now being able
18 to say that this median point can be used as a
19 remediation objective, we've kind of skipped that step
20 and said okay, this is a -- because the step will
21 still be used within the program that you're in, in
22 RCRA, LUST, SRP program, in an initial step, whether
23 it's contaminant of concern, whereas now we're just
24 truly focusing on, you know, this is a remediation

1 objective.

2 MR. RIESER: Where under 740 for example
3 would people be able to make a determination that a
4 substance at the site was an area background substance
5 and then be able to eliminate it as a chemical of
6 concern?

7 MR. KING: I'm not sure I'm understanding
8 your question.

9 MR. RIESER: The question was in response to
10 John specifically, where else from -- where else than
11 here, 421(b), would a person be able to make a
12 demonstration that an individual contaminant was not a
13 contaminant of concern because it was area background?

14 MS. ROBINSON: Mr. Eastep's going to respond
15 to this, and I believe he was sworn at the initial set
16 of hearings in Chicago also.

17 MR. EASTEP: There isn't really a need to
18 make that type of formal determination under the Site
19 Remediation Program, because what's going to happen is
20 the remedial applicant is going to go through T.A.C.O.
21 and identify the contaminants of concern, and at that
22 point put together the remedial objectives report, and
23 that will -- that should identify in there the
24 contaminants of concern and how they're addressed.

1 And that would include the area background
2 determination as well.

3 And so if something was excluded it would show up
4 in the remedial objectives report.

5 MR. RIESER: I don't want to belabor this,
6 but -- and maybe this is just a -- as a comment, that
7 the -- this language was a way that you could make a
8 determination -- it appeared to me to be a way to make
9 a determination that something wasn't a contaminant of
10 concern and that it could be excluded from future
11 consideration.

12 And I guess the question is whether it's really
13 been thought through, the impact of saying no, you're
14 not excluding it as a contaminant of concern, you're
15 just assigning a remediation objective to that
16 substance.

17 So if you had a site where lead was -- an area
18 where lead was ubiquitous and on your sites you have a
19 joint comprehensive evaluation and you want to exclude
20 that from evaluation, under this language you couldn't
21 exclude it, you could just assign a remediation
22 objective to it.

23 MR. EASTEP: But I would think -- and that's
24 what that says, you're correct. But I would also

1 think that you could go back to the definition of
2 contaminants of concern and present the argument that
3 it doesn't fit that definition.

4 MR. KING: Are you envisioning situations
5 where somebody would identify levels that are above
6 what we've got in this Table G and would still want
7 the opportunity to show that those are background
8 numbers?

9 MR. RIESER: No, not specifically, just in
10 general. Do you want -- do you want to take a
11 substance and say it's not a contaminant of concern
12 because it's background, and this language allowed you
13 to make that statement determination.

14 MS. McFAWN: And are you saying that because
15 you could make that statement, you thought you would
16 get an NFR supporting that position?

17 MR. RIESER: Well, the NFR wouldn't address
18 that specific concept, but the remediation objectives
19 report you would make that determination, and that
20 substance would fall out from future consideration as
21 you moved through the process.

22 MS. McFAWN: So for a while it was a
23 contaminant of concern, it was resolved, and it would
24 not crop up again, is that what you're saying?

1 MR. RIESER: Right.

2 MS. McFAWN: Does that help you any?

3 HEARING OFFICER DESHARNAIS: Miss Rosen?

4 MS. ROSEN: I guess it is kind of more of a
5 statement. It's a perception problem, whether it can
6 be excluded up front as not being a contaminant versus
7 whether it's a remediation objective that is going to
8 -- may have some baggage with it.

9 HEARING OFFICER DESHARNAIS: Mr. Reott?

10 MR. REOTT: I think it's more of a perception
11 problem, because if you exclude it from the front end
12 then you don't have to sample for it as much. If you
13 don't exclude it until later you have to do more
14 sampling for it. So there may be a cost attached to
15 it, too.

16 MR. RIESER: Maybe this is something the
17 Agency wants to look at further.

18 MR. EASTEP: I'm not sure that that argument
19 -- that I agree with Mr. Reott's argument. In either
20 case you might be -- an applicant might be put in a
21 position where he has to at least sample to address
22 some of that, particularly with -- either way you go,
23 with the argument if you're using the area background
24 or you're using a contaminant of concern argument,

1 that relates back to the area background, you still
2 may be put be in a position where you have to sample
3 for it.

4 MR. RIESER: Sample off-site if it was area
5 background and sample on-site if it was a contaminant
6 of concern. I don't want to belabor this, as I said.
7 It's just something I want to underline and ask about.
8 It strikes me it takes something away that was in
9 there for a purpose.

10 MR. KING: Well, the reason why we had that
11 in there originally was because we did not have -- you
12 couldn't call these things remediation objectives.
13 That was why the language was drafted that way. And
14 so once we went to the remediation objective concept,
15 we saw this as not being needed.

16 And to me it seems like it is already inherent in
17 the other provisions dealing with background, that
18 there's a place for somebody to make that kind of
19 demonstration, because you demonstrate what the
20 background is and then you show well, that's all on my
21 site and so you don't have to be concerned about it
22 any further.

23 Well, I mean whether you say you met the objective
24 or you've excluded it, in that context it means the

1 same thing to me.

2 HEARING OFFICER DESHARNAIS: Okay, well, at
3 least that's something that can be further addressed
4 in comments if people feel it's appropriate. Does the
5 Agency wish to continue with the errata sheet?

6 MR. KING: Okay.

7 MR. WATSON: I've got some additional
8 questions on this change.

9 HEARING OFFICER DESHARNAIS: On the same
10 sections?

11 MR. WATSON: Yeah.

12 HEARING OFFICER DESHARNAIS: Okay, Mr.
13 Watson.

14 MR. WATSON: I was just wondering if you
15 could elaborate a little bit on what went into
16 choosing the 50th percentile or the mean average in
17 choosing your remediation objective.

18 MR. KING: I don't think we have anything to
19 add from what I said earlier, and that was it was the
20 point that -- given the nature of the database we were
21 dealing with, that was the point that we were most
22 comfortable with as being the statistically correct
23 data point.

24 MR. WATSON: Well, did you then go through

1 and evaluate all the data and the source of the data
2 and then determine that if you chose 50 -- I mean on a
3 technical basis if you chose the 50th percentile that
4 would probably give you the truest area background
5 number?

6 MR. KING: Our concerns, and again this goes
7 back to the original testimony that Mr. Hornshaw set
8 forth when he testified back in November, that
9 database that went into creating the area background
10 range, we did that what, two or three years ago, and
11 that was not done for purposes of this proceeding or
12 for purposes of developing a background number.

13 So we were using that to -- as -- to get
14 information from a statewide basis what kind of levels
15 were anticipated. And we collected data, used data
16 that the Agency had collected from various different
17 sources as Jim O'Brien has talked about.

18 For instance for some of the lead stuff, it was
19 clear that there was some of them there was an
20 influence from something that we would not consider
21 really background issues. A number of the sites where
22 we were taking data from were Super Fund sites, and so
23 there could have been a question about how really
24 representative of background that was.

1 And so given all those difficulties with the
2 nature of the database, we felt that the number that
3 we were most comfortable with as far as being the
4 correct number was that median.

5 MR. WATSON: Did you look at any other
6 levels, for instance the 75 percentile, to see what
7 those numbers looked like?

8 MR. KING: No, we didn't do it in terms of
9 looking at what the numbers would look like. We were
10 evaluating -- we did it on the basis of evaluating
11 that database that we had collected, and our knowledge
12 of where all that information came from.

13 We didn't look at well, 70 percent will give you
14 this number, 90 percent will give you this other
15 number, we didn't do any of that kind of thing.

16 If I may move on to Section 600, we made a number
17 of -- Errata Sheet 2 includes a number of changes that
18 were discussed at the last day of hearing in the first
19 set of hearings relative to risk level, and you'll see
20 at this point and at several others, we're really more
21 or less just kind of laying out in errata sheet format
22 what we had presented in a single sheet format at that
23 time.

24 MS. ROBINSON: For the record that was the

1 document that was entered as an exhibit entitled
2 Errata Changes on Risk Issue. Those are all rolled in
3 here now.

4 MR. KING: 610(a), that was I think we had
5 gotten a comment from the Board that suggested we
6 needed to have a left side of an equation in that
7 rule, so we included that.

8 710(b) is -- well, both of those changes in 710(b)
9 are related to the risk level issue. The same is true
10 with the change on 710(c)2(a).

11 710(d)(1)(A), that was -- that's in response to
12 some questions that we've been getting outside of the
13 hearing process context, and we've been getting some
14 questions about the pH-dependent Koc values, and so we
15 thought it would be -- since we had that data we
16 thought it would be best to go ahead and put that
17 together and include another table with that
18 information in it.

19 The change on 710(d)(1)(C) again is related to the
20 risk level issues.

21 715(c)(3), that was just a typo.

22 715(d) is a risk level issue.

23 810(a)(1)(G), that was a typo, we changed that
24 capital "I" to a lower case "i".

1 HEARING OFFICER DESHARNAIS: Yes.

2 MR. PEACH: David Peach, Ross & Hardies for
3 the Illinois Steel Group. I just want to clarify the
4 810(a)(1)(G) item. I believe that should be a change
5 from infiltration rate capital "I" to hydraulic
6 gradient small "i". And also just as another note,
7 the aquifer conductivity should be a capital "K" and
8 not a small "k" in that same paragraph.

9 MR. KING: Okay, we'll have to -- we'll
10 double-check those.

11 810(a)(3), we deleted that definition of C source
12 because there's already a definition in 810(a)(1)(C).

13 There are three changes on 900. Those are all
14 related to the risk level issue.

15 There's a change on 1000(a), that's related to --
16 we went back and looked at -- it seemed to us that the
17 first sentence there was not necessary, duplicative,
18 and then we changed the words "in place" to "placed"
19 so it was clear that at the time you developed your
20 remediation objectives you didn't have to have
21 institutional controls already in place, that you
22 could put that in place afterwards.

23 1085(a)(5) is related to the risk level issue.

24 1010 is a typo.

1 1015(a) starts a series of three changes that we
2 made on the groundwater ordinance subsection with that
3 we thought we'd make it -- or were improvements to
4 make it work more effectively.

5 If you look at the first issue there, the original
6 language had said "prohibits the use of groundwater",
7 and under strict reading of that, if an ordinance
8 grandfathered existing wells, then that would not be
9 acceptable, and we think that's not necessary to
10 prohibit grandfathering, because the way this is used
11 in Tier 2 and under Subpart C, the modeling has to
12 account for existing wells so we don't have to -- we
13 won't have to have an ordinance that prohibits
14 grandfathered wells.

15 HEARING OFFICER DESHARNAIS: Mr. Rieser.

16 MR. RIESER: With respect to this language, I
17 think installation of potable water supply because --
18 it would clarify to say installation of new potable
19 water supplies wells or installation of additional
20 potable water supply wells, because the follow-up use
21 of such wells might be referenced to any water supply
22 wells.

23 MR. KING: Well, we tried to make it --
24 that's why we had in the use of such wells written it

1 the way it is, so it's applying only to that phrase
2 before that. We had debated about words like new or
3 additional, and then it's kind of like well, if you
4 put in the word new, what does that mean? Does it
5 mean new after the remediation's occurred, after the
6 NFR is issued, after the ordinance is adopted, you
7 know, and we were trying not to create other issues by
8 including that word.

9 MR. RIESER: But the intent is plainly that
10 it prohibits the installation of more wells than are
11 currently there in other words?

12 MR. KING: Right.

13 MR. RAO: Mr. King, I have a question. You
14 said regarding the existing wells that we may use for
15 potable water supply, that the modeling should account
16 for such use. What did you mean by that?

17 MR. KING: If you look at -- let me pull this
18 out. Let's look at 742.810. Excuse me, 805. And
19 there's various criteria there as to what a -- the
20 Tier 2 demonstration has to meet.

21 And one of the ones that you have to show is that
22 the point of -- at the point of human exposure that
23 the groundwater mediation objective is being met.

24 Okay. So a well, an existing well that's being

1 used as a potable water supply would be a point of
2 human exposure. So there would have to be
3 demonstration using equation R26.

4 MR. RAO: But the language that you propose
5 in Errata Sheet 2 deals with institutional controls,
6 doesn't it?

7 MR. KING: Right.

8 MR. RAO: Where they don't have to meet the
9 groundwater objectives.

10 MR. KING: The purpose of the ordinance is
11 not to -- is not to show that existing groundwater
12 uses are protected. It's to control future uses of
13 the groundwater. So that's the purpose of the
14 ordinance. The ordinance is controlling future use of
15 the groundwater, just like a deed restriction would on
16 an individual piece of property. It's controlling
17 future use of that groundwater.

18 MR. RAO: So are you saying that, you know,
19 somebody has to go with this -- getting an ordinance
20 will still have to make a demonstration required by
21 742.805 for existing use?

22 MR. KING: Yes.

23 MR. RAO: Thanks.

24 MR. SHERRILL: Unless they were doing 742.320

1 which ties it back into that.

2 MR. KING: Okay, then the second part of that
3 provision discusses -- well, then if there's a
4 prohibition on use of future installation of wells,
5 what happens if local government wants to install
6 additional wells? Because you know, they need it for
7 groundwater use.

8 We didn't want to exclude in a regimented way all
9 future uses by a local government of groundwater
10 within its community. But we did want to set up a
11 process so that it was clear that -- clear to us that
12 the local government was going to review, evaluate and
13 address any contamination issues before they put a
14 well in.

15 And so that's why we'd previously had this concept
16 of a memorandum of understanding between the Agency
17 and the local government where the local government
18 chose to enter that agreement, and we have expanded
19 that, that memorandum of understanding concept to
20 include the three items that are included in
21 1015(i)(6).

22 Just to go over those, the first item is the local
23 government would review the registry of sites where
24 NFR's have been -- determinations have been made

1 within the area covered by the ordinance, that was
2 something that was already included.

3 Secondly, they determine whether any potential --
4 whether the potential source of the potable water has
5 been or could be affected by the contamination that
6 had been approved to be left in place.

7 And the third element is they take steps to make
8 sure that the source of the potable water is protected
9 from the contamination or is capable of being treated.

10 The next two items on 1020 are just clarification
11 of which part of the Tier 1 objectives are being
12 referred to there. We have that included.

13 The next provision on 1100(d). This was an issue
14 that was raised in discussions in the context of
15 R97-11 relative to our Part 740 proposal. We wanted
16 to be consistent with our position in that proceeding.

17 It seemed like the problem we were facing there is
18 whether we were mandating a specific relationship
19 between an owner of a site, future owners, lessees, et
20 cetera, and we don't want to be in a position where
21 we're mandating that type of relationship.

22 We had -- I don't know, Dave, did you want to
23 bring up this point about the transferability issue
24 any further? We had a discussion with some of the

1 Site Remediation Committee people yesterday and there
2 was some further discussion about this point.

3 MR. RIESER: Yeah, I guess the question in
4 the form of a question, the sentence "this
5 responsibility shall be transferable with the
6 property", is still -- the concept at least of
7 transferability is something the Agency still believes
8 in, correct?

9 MR. KING: That's correct.

10 MR. RIESER: Would the Agency consider taking
11 the sentence or a sentence that is suitably modified
12 to reflect the concerns the Agency has and placed
13 elsewhere in this document, and I think the reason is
14 in the R97-11 there was discussion about this
15 transferability issue, and one of the references that
16 people had was this particular section of this
17 particular language. And because I think this is the
18 only place that says clearly that these -- these
19 obligations are transferable among owners or well,
20 among people responsible for doing the transferring.

21 MR. KING: We were going to look at this
22 issue as a result of our discussions yesterday in
23 terms of making that a permissible concept. There's
24 certainly not -- from our standpoint we think that

1 this responsibility certainly can be transferred from
2 owner to successive owner. And the issue for us is
3 trying to make sure that it's clear that it's a
4 permissive context as opposed to any specific
5 mandatory change between one set of owners or one set
6 of lessees.

7 HEARING OFFICER DESHARNAIS: Would any
8 suggested changes to that section be included in an
9 Errata Sheet 3?

10 MR. KING: That's right.

11 HEARING OFFICER DESHARNAIS: Thank you.

12 MR. KING: 1105(c), the change there is wrong
13 so you should ignore it.

14 1105(c)(2)(C) we're trying to maintain the English
15 system here as long as we can as opposed to the metric
16 system. However, we want to make sure we're
17 consistent in how we use those terms, so we've got
18 three feet instead of one meter.

19 1105(c)(3), those changes there are -- really just
20 needed to include the ten foot concept that you see in
21 Subsection (c)(3)(C) there which is consistent with
22 what we have under Subpart C.

23 We have a number of changes to the --

24 MR. RIESER: Excuse me.

1 HEARING OFFICER DESHARNAIS: Mr. Rieser.

2 MR. RIESER: Yes, I'm sorry. The clean soil,
3 is that intended to exclude fill or other materials
4 that might be between the contaminated media and the
5 surface?

6 MR. SHERRILL: Yes, generally, yes. I think
7 we had discussed this in the first hearing, I'm trying
8 to think of the context of what we meant by clean
9 soil.

10 MR. RIESER: Well, I would wonder how it
11 would apply to an industrial site that had three feet
12 of some nonnative material that wasn't duplicated in
13 whatever the contamination was, and seven feet of
14 native material, soil or whatever it happened to be,
15 but that represented in total ten feet of cover
16 between the surface and the contaminated media, and
17 whether this was intended to exclude that particular
18 situation.

19 MR. KING: Well, I think -- I mean we used
20 the term clean soil there, really our intention was
21 that it would be a native type material. Because we
22 were concerned that, you know, you could have just ten
23 feet of junk, I mean literally junk, on top of the
24 contamination, and that wouldn't do anything to

1 inhibit the movement of contamination into the air
2 pure spaces and upward.

3 MR. RIESER: Could one make a demonstration
4 that the nonnative material was as effective as soil
5 in limiting the -- limiting vapor transport?

6 MR. KING: Yes, that's certainly feasible.

7 MR. RIESER: Thank you.

8 MR. KING: As I was saying, we have a number
9 of changes to the appendices. Unless somebody wants
10 to get into the specifics of any single one of these,
11 I really don't want to.

12 They really represent an effort on our part to
13 continue to work towards having these tables and these
14 numbers be as correct as we can possibly have them.
15 And so we've been going through an outside peer review
16 with two of the gentlemen here from the Site Advisory
17 Committee looking at these numbers closely, and we've
18 been trying to make sure all the numbers are right and
19 all the calculations are correct and we don't have any
20 rounding errors which then contribute to some other
21 inaccuracies in the numbers presented.

22 HEARING OFFICER DESHARNAIS: Miss Rosen?

23 MS. ROSEN: I just have one question. Gary,
24 could you provide some background on new 742 Appendix

1 B Table F, maybe where that came from, or what use
2 that table might be.

3 MR. KING: Appendix B, Table F?

4 MS. ROBINSON: On the document that was in
5 the back, there are page numbers that didn't copy very
6 well at the bottom, but it looks like it's page 60 of
7 the appendices on the version that we brought in
8 today.

9 HEARING OFFICER DESHARNAIS: Miss Robinson,
10 just to clarify, you have modified versions of the
11 appendices available?

12 MS. ROBINSON: That's right. I don't know
13 how many things are different from the appendices we
14 handed out last time. They are going to be mostly the
15 same type of things that were shaded before, you're
16 going to see still shaded. We have added something or
17 clarified something that will show up in here, too.

18 We intend and hopefully as part of Errata Sheet
19 Number 3 to actually file a proposal all together with
20 all the errata changes, strikeouts and underlines
21 showing up for the Board, and we can put it in the
22 service list, too, so everybody gets a copy, and that
23 will include the text changes and the appendices
24 changes.

1 HEARING OFFICER DESHARNAIS: At this time
2 would you like to move to have this admitted as an
3 exhibit?

4 MS. ROBINSON: Please.

5 MS. McFAWN: Can you tell me, does this
6 replace what is now Exhibit 8 which are your last
7 version of the appendices?

8 MS. ROBINSON: Yes, it should.

9 HEARING OFFICER DESHARNAIS: Is there any
10 objection to this being admitted as Exhibit 21?

11 (No response.)

12 HEARING OFFICER DESHARNAIS: It will be so
13 admitted. And it's the new modified versions of
14 appendices -- is that appendices A through D?

15 MS. ROBINSON: That's correct.

16 HEARING OFFICER DESHARNAIS: Thank you.

17 (Exhibit Number 21 was admitted.)

18 HEARING OFFICER DESHARNAIS: Was there a
19 question pending for the Agency?

20 MS. ROSEN: Yes.

21 DR. HORNSHAW: As I had testified in the
22 previous hearing, we had been getting quite a few
23 calls from consultants who weren't able to recreate
24 the values in Tier 1 using some software programs that

1 they had developed.

2 And as David and I discussed earlier today, in a
3 leftover question from the previous hearing, we put
4 this table together so that people would have the
5 exact values that went into the creation of the Tier 1
6 table for the migration to groundwater values. That's
7 what this table does, this new table.

8 MS. ROSEN: Thank you.

9 HEARING OFFICER DESHARNAIS: Mr. Rieser.

10 MR. RIESER: We talked at the last hearing,
11 Mr. Hornshaw, about the question of attribution, some
12 of the values are footnoted to reflect their
13 attribution and some are not, and went into some
14 detail about that then about describing where those
15 uncontributed values were from.

16 Is there any interest or intent on the Agency to
17 including those attributions in the new version of
18 this table?

19 DR. HORNSHAW: I think we can do that.

20 MR. RIESER: Thank you.

21 MR. O'BRIEN: I'd also point out that on --
22 other than the first page, the table gets a little
23 long when it gets over -- it says groundwater cleanup
24 objectives, and it's supposed to reflect the word

1 that's on the first page for the two right most two
2 columns. So we'll correct that also.

3 HEARING OFFICER DESHARNAIS: And again these
4 changes would be reflected in Agency Errata Sheet 3?

5 MS. ROBINSON: Correct.

6 HEARING OFFICER DESHARNAIS: Thank you. Mr.
7 Rieser.

8 MR. RIESER: Yeah, I have one more question,
9 and this goes back to 900(d), which is the reference
10 to requiring if there's a change in the target risk
11 going to 915, and the question is why this can't be
12 handled as one would handle a modification of other
13 parameters via 742.905, where you would supply a
14 justification for the modification and the technical
15 mathematical basis for the modification.

16 MS. ROBINSON: Could you restate your
17 question, Mr. Rieser? I'm sorry, I don't think we
18 quite got it.

19 MR. RIESER: Let's read it back and see if it
20 makes sense.

21 (The reporter read the requested
22 material.)

23 DR. HORNSHAW: I hope I'm going to be
24 answering your question, because I was talking with

1 Gary as the question was being reread, but --

2 MR. RIESER: Well, I hope so, too.

3 DR. HORNSHAW: The reason a risk value
4 greater than one in a million needs to be a part of a
5 formal risk assessment in Section 915, it is our
6 intent that whatever is the output of that risk
7 assessment, if it turns out to be greater than one in
8 a million but justified in the context of the risk
9 assessment, that's how the value will be approved.

10 We don't anticipate somebody coming in at the
11 beginning of a process and say I think the risk should
12 be one times ten to the minus fourth, now I'm going to
13 go do the risk assessment to justify that.

14 MR. RIESER: Are there sites where a less
15 than full-blown elaborate risk assessment would be
16 available to justify a change in the target risk?

17 DR. HORNSHAW: I'm not sure I can think of a
18 justification at this point. We've testified that we
19 think everybody deserves equal protection at the point
20 of exposure, and maybe somebody can come in with a
21 justification for somebody having a higher risk. But
22 I can't think of that at this point.

23 MR. RIESER: Would a case where you had a --
24 the likelihood of a potential receptor in the future

1 is extremely low, would that be one of the
2 considerations?

3 DR. HORNSHAW: Usually that's taken care of
4 by the assumptions that you make about exposure rather
5 than the risk level.

6 MR. RIESER: Would the likelihood that there
7 would be a future receptor be a case?

8 DR. HORNSHAW: Is there still a question or
9 were you working on a different question?

10 MR. RIESER: No, thank you.

11 MS. ROBINSON: No, there's not.

12 MR. RIESER: No further questions.

13 DR. HORNSHAW: Okay.

14 HEARING OFFICER DESHARNAIS: Mr. Watson, did
15 you have a question?

16 MR. WATSON: Would the -- perhaps the
17 presence of a single contaminant at a site be a
18 justification for the application of a risk greater
19 than ten to the minus sixth? I mean as I understand
20 USEPA methodology, it's cumulative risk-based to
21 insure that you never have a risk greater than ten to
22 the minus fourth. So if you have one contaminant on
23 your property, would that be potentially a
24 justification for arguing for something other than ten

1 to the minus sixth without a full-blown risk
2 assessment?

3 MR. KING: What's confusing us when you use
4 that term without a full-blown risk assessment but
5 using USEPA procedures, if you use USEPA procedures,
6 for us that's a full-blown risk assessment. So I mean
7 --

8 MR. WATSON: Well, I guess what I was
9 referring to is in the soil screening guidance
10 document in deriving the cleanup objectives, there is
11 this understanding of cumulative risk, isn't that
12 right?

13 DR. HORNSHAW: That's correct.

14 MR. WATSON: And that's not a part of a Tier
15 3, I mean that's -- you could use that concept in
16 arguing for a risk greater than ten to the minus sixth
17 without going through a full-blown risk assessment?

18 DR. HORNSHAW: I'm still not sure that that's
19 what the reasoning is. What we have in the section on
20 formal risk assessment is that you're supposed to be
21 using nationally recognized procedures, and for the
22 most part those nationally recognized procedures is a
23 full risk assessment. And arguing ahead of that full
24 risk assessment that some other risk level is

1 appropriate, I can't think of how that could be
2 justified.

3 HEARING OFFICER DESHARNAIS: Mr. Reott, did
4 you have a question?

5 MR. REOTT: Yeah. Several. Dr. Hornshaw,
6 doesn't the statute require that the Agency set risk
7 at between one times ten to the minus fourth and one
8 times ten to the minus sixth?

9 DR. HORNSHAW: Not for residential
10 properties.

11 MR. REOTT: Right, but for everything else
12 that's what the statute requires, isn't that right?

13 DR. HORNSHAW: Correct.

14 MR. REOTT: Isn't that justification by
15 itself in the absence of a full-blown risk assessment
16 for setting risk at one times ten to the minus sixth
17 for example for industrial property?

18 DR. HORNSHAW: I'm not so sure about that.
19 The legislature gave us broad directive and didn't say
20 how to use those risk levels. So we've assumed that
21 we were going to use nationally accepted procedures on
22 how those risk levels are going to be translated into
23 this rule.

24 MR. REOTT: The General Assembly specifically

1 limited your discretion with regard to residential
2 property. Isn't the implication of that limitation
3 that they weren't trying to put that limit on other
4 properties, industrial properties for example?

5 DR. HORNSHAW: Maybe, I don't know. I'm not
6 going to put words into their mouth.

7 MR. REOTT: Dr. Hornshaw, USEPA submitted a
8 comment which was identified this afternoon as Public
9 Comment Number 2 for the record. Have you had a
10 chance to review that?

11 MR. KING: Could we just back up just as a
12 further amplification on the previous question. I
13 mean we're clearly recognizing that risk levels can be
14 greater than one in a million, because we recognize
15 that you could have multiple contaminants at a site.
16 And if you had ten contaminants each at a risk of one
17 in a million, then your cumulative risk is one times
18 ten to the minus fifth.

19 You know, so I mean we're being consistent with
20 the statute. So the implication that we're not being
21 consistent with the statute, you know, I wouldn't
22 agree with that.

23 MR. REOTT: Okay.

24 DR. HORNSHAW: And to go even further beyond

1 that I've heard a suggestion that the Board may want
2 to consider one times ten to the minus fourth as a
3 goal, and if you have more than one carcinogen at the
4 site then you've already gone beyond what the
5 legislature is going to allow if ten to the minus
6 fourth is your target risk at the beginning of a
7 process.

8 MR. REOTT: Dr. Hornshaw, have you had a
9 chance to look at the USEPA comments?

10 DR. HORNSHAW: I have glanced at it briefly
11 and I don't recall what was in it to tell you the
12 truth.

13 MR. REOTT: Let me direct your attention to
14 paragraph 18.

15 MS. McFAWN: Could I interject here? I think
16 we're going back into the substantive testimony that
17 you gave and the issue that's been presented by Miss
18 Huff as well about what should be the correct level of
19 risk.

20 For the purposes of the errata sheet can we just
21 focus on the language that the Agency has proposed
22 here? Do you have an objection? It seems like they
23 have tried to clarify their position. Now you might
24 disagree with their position, but do you have

1 questions about their language per se?

2 MR. REOTT: I don't have any question about
3 clarifying their position, but it's dramatically
4 different than we've ever heard before in this
5 rulemaking, and everybody in the audience recognizes
6 that and that's why we're all jumping up.

7 MS. McFAWN: I guess I didn't recognize that.
8 Maybe I'm missing something, it might be my
9 sophistication isn't that high, but it seems to me
10 that this is what they've been telling us and in fact
11 in response to your testimony.

12 MR. REOTT: Let me just articulate what I
13 think is different and maybe you'll understand why
14 we're all doing this.

15 MS. McFAWN: What I'm questioning is this the
16 proper time or, you know, in the -- I think now we're
17 going into your testimony, and I want to focus on the
18 errata sheet. So why don't we if we can take a break
19 from this train of thought and come back to it and you
20 can clarify your position on it.

21 MR. REOTT: Okay.

22 HEARING OFFICER DESHARNAIS: Will the Agency
23 be addressing risk levels when it addresses its
24 rebuttal testimony?

1 MR. KING: Yes.

2 HEARING OFFICER DESHARNAIS: Would it be
3 acceptable to everyone else to --

4 MR. REOTT: That's fine.

5 HEARING OFFICER DESHARNAIS: -- save this
6 discussion for that time?

7 MS. ROBINSON: Yes, it would. By us I mean.
8 I'm not speaking for everybody else.

9 HEARING OFFICER DESHARNAIS: Okay, so at this
10 time unless there are -- are there any additional
11 questions on the language of the errata sheet?

12 (No response.)

13 HEARING OFFICER DESHARNAIS: Does the Agency
14 have any additional comments on its errata sheet?

15 MS. ROBINSON: Hold on one second, we may
16 just have another typo.

17 We're finished.

18 HEARING OFFICER DESHARNAIS: In that case if
19 the Agency would move on to its presentation
20 concerning its rebuttal testimony.

21 MS. ROBINSON: Okay, I think how we'd like to
22 do this, it is rebuttal testimony, and I think we'd
23 like to go with what we did as submitting this as
24 Exhibit Number 20, and then instead of reading this

1 word for word I would ask that we enter this into the
2 record as if it had been read and then allow our
3 people to give summaries. It might go a little bit
4 more smoothly that way. That way we may lose some
5 attention at this late point in the day if we try to
6 read it word for word.

7 HEARING OFFICER DESHARNAIS: Are there any
8 objections to the testimony being entered as if read?

9 (No response.)

10 HEARING OFFICER DESHARNAIS: Okay, we will
11 treat it the same as other prefiled testimony. If the
12 Agency wishes to proceed with its summary.

13 MS. ROBINSON: I think Mr. King is going to
14 summarize the first topic.

15 MR. KING: The first topic that we addressed
16 was the definition of residential property. And we
17 had an opportunity to consider the definition that
18 Linda Huff proposed, and we objected to that proposed
19 revision. This was the same -- we went through this
20 same definitional issue in the context of R97-11
21 relative to Part 740.

22 When Miss Huff testified there she had proposed
23 the same kinds of changes to the definition of
24 residential property. And our response here is

1 basically the same thing as we responded there. We've
2 got a couple of concerns.

3 One is the notion of we felt that the language
4 they had proposed would imply that you don't have --
5 it's not going to be clear that you've got a complete
6 exposure pathway, and we felt that it's -- that's an
7 important concept to have there.

8 And then the second point is that if we've limited
9 the definition to simply what exists at the time of
10 the investigation, and don't include the notion of
11 what may occur in most remediation uses, then we don't
12 think that's an appropriate way to look at that issue.

13 Mr. Reott had also proposed some changes to the
14 definition of residential property, and I hadn't seen
15 any testimony on that. I think I -- but he did talk
16 about it this morning, so I'll talk about that a
17 little bit.

18 As best I can understand what is being suggested,
19 from our position it would really -- we'd end up with
20 something that would be totally unworkable. It looks
21 to me like we would somehow be having to conclude or
22 make determinations based on how long people were
23 living at a specific location and how long they were
24 planning on living at that location and those kind of

1 issues, which to me would seem like it would be
2 impossible for us to monitor or make any kind of
3 consistent decisions.

4 So our conclusion is that we think the definition
5 of residential property that we provided is a good
6 one, is consistent with the statute and we think that
7 should be followed.

8 The second topic was relative to compliance with
9 remediation objectives under Section 742.225, and we
10 tried to -- our purpose, we tried to address the
11 concerns that Miss Huff had presented and we thought
12 we came up with a way to deal with that in Errata
13 Sheet 2.

14 The third topic is the principles, basically it's
15 -- there was a lot of discussion about Section 305
16 earlier today and what that topic covers. And Mr.
17 Sherrill's going to give the bulk of our response on
18 that, but I wanted to introduce a couple of points
19 that we don't talk directly about in what's been
20 provided in the exhibit.

21 Subpart C in essence was not our proposal. As it
22 was originally formulated that was developed by the
23 Site Remediation Advisory Committee. And they did so,
24 they developed it to fill a gap which they saw in what

1 we had proposed. And it's intended by us and I
2 believe it's certainly intended by them to be a
3 consistent hole.

4 Mr. Walton talked this morning about what he
5 refers to as the good gooey stuff being source
6 material, and we really in the context of Subpart C
7 were trying to figure out how do you define what is
8 the good gooey material that should be removed in the
9 context of the pathway exclusion process.

10 And we really would struggle very much with that
11 and concluded that there needed to be some -- there
12 needed to be a definition relative to that that was
13 measurable. And we hit upon the five points that are
14 laid out in section -- excuse me, six points that are
15 laid out in Section 305.

16 If the Board is going to throw out 305, then it
17 really should be throwing out all of Subpart C,
18 because it is whole and it's not intended to be broken
19 apart.

20 We think Subpart C makes sense, is a good
21 approach, but we don't think you should just take --
22 the Board should be in a position where it just takes
23 half of Subpart C and not the other half.

24 MR. SHERRILL: The issue following up on what

1 Mr. King has said, so this exposure route evaluation,
2 then the question becomes, you know, what are we going
3 to leave behind as source material, as contaminated
4 material, and how would you measure that.

5 And the criteria that we've applied here under
6 Subpart C are when the soil attenuation capacity is
7 exceeded, when the soil saturation limit is exceeded,
8 reactivity, the pH, when the pH is less than 2 or
9 greater than 12.5, and when toxicity characteristics
10 for either arsenic, barium, cadmium, chromium, lead,
11 mercury, selenium or silver are exceeded, or there's
12 free product in the groundwater.

13 There's two -- we've made the analogy here, I can
14 bring it up, of a speed limit in the analogy of, you
15 know, how much source material you can leave, and the
16 analogy being what are we going to have as a limit, a
17 concentration that you can leave behind in either the
18 soil or groundwater.

19 And there's two reasons that we see that there
20 should be limits on how much contamination should be
21 left behind under Subpart C. One is if these limits
22 are exceeded, trying to model the behavior and the
23 migration of any contaminant that you left behind, the
24 Agency does not know, I don't know of any models how

1 you could model those behavior of those contaminants.

2 And then more importantly, we believe unacceptable
3 health risks would remain if you leave contaminants
4 behind that could exceed these limits.

5 742 was designed to be protective of long term
6 exposures to human health and the environment, and we
7 believe if you leave behind limits that exceed these
8 criteria, there's the potential for very short term
9 exposures that could be of an acute and immediate
10 endangerment to human health if you were to be
11 accidentally exposed.

12 I've listed that brief contact with contamination
13 could cause serious dermal effects. You could be
14 leaving behind levels that are -- that could be
15 absorbed through the skin just through brief contact.
16 Immediate danger to human health and life or to organ,
17 like we said, skin, lungs, kidneys. Immediate danger
18 to skin and eyes from exposure to extreme pH ranges.
19 And seepage of free product into basements, parking
20 garages, utility trenches which could cause fire
21 explosions.

22 The Agency feels that whether or not there is an
23 institutional control and engineered barrier, under
24 Subpart C as the way it's written now, we would not be

1 -- that there will be accidental or unintentional
2 exposure to some contaminants, you know, whether or
3 not there's an engineered barrier there. And we
4 think to be protective of these accidental exposures
5 that we need to have some kind of limits on the
6 concentrations of contaminants.

7 And we've already back in December went over quite
8 a bit that what we do have Tier 3 available under
9 Section 742.925, that this isn't the only method under
10 742, the Subpart C is not the only way to evaluate an
11 exposure route.

12 So in other words, the question was asked several
13 times, you know, if you do have source material
14 behind, could there be circumstances at a site that
15 you could leave that behind, and our answer was yes,
16 and we would evaluate that under Tier 3.

17 And Gary King was going to follow up a little bit
18 more on the point of human exposure, which somewhat
19 ties in together with this exposure route. That will
20 be a little bit later on in this testimony.

21 MR. KING: Let me add one other point, and
22 that's again there was some discussion this morning
23 which would -- kind of left the implication that maybe
24 these criteria should be or could be expanded to apply

1 to the other Subparts within 742. And we would not
2 agree with that. I mean this is to be fixed within
3 the context of Subpart C. Those six criteria don't
4 have to be included as part of Tiers 1, 2 or 3 or the
5 area background.

6 MR. SHERRILL: And just another point is, you
7 know, we've brought up as pH is one of these criteria.
8 And whereas it's not explicitly stated in this --
9 under Subpart C, the pH is a contaminant of concern,
10 it doesn't say this under Subpart C. And we don't
11 have it listed as one of the 117 contaminants or
12 chemicals.

13 There's thousands, as we stated earlier in
14 December, there's thousands of contaminants in the
15 environment, and we've listed as many really as
16 practical on developing remediation objectives, and we
17 do have soils where pH is a contaminant of concern. I
18 mean it not always is, but for purposes of 742 you
19 could have pH, whereas that was a contaminant of
20 concern.

21 MR. KING: We could move into area
22 background.

23 MR. REOTT: Do you want to do questions as we
24 go?

1 HEARING OFFICER DESHARNAIS: Actually since
2 this is being treated as testimony and the Agency's
3 presenting it's summary, we will have a summary of all
4 the testimony as with other witnesses and allow
5 questions at the end.

6 MR. KING: On the area background issue, I
7 think we've really talked a lot about that already in
8 the context of Errata Sheet Number 2, and I don't see
9 any real reason to go into any further summation at
10 this point.

11 The next issue was the discussion on risk levels.
12 Mr. Reott was right in -- oh, excuse me, one other
13 point in between them.

14 MR. SHERRILL: Under the topic Tier 2 data
15 gaps, Mr. Reott has an attachment that listed --
16 stated somewhat that Tier 2 is unavailable for
17 approximately one-half of the 110 chemicals listed in
18 Tier 1 due to data gaps.

19 For several of these contaminants, they had to do
20 with the inhalation, developing an inhalation
21 remediation objective, and for many contaminants
22 there's not an inhalation remediation objective that
23 needs to be developed.

24 So there is no -- in other words, it is not an

1 inhalation concern. And I think Tom, Dr. Hornshaw was
2 going to elaborate a little bit more on a couple other
3 points on some of these contaminants.

4 DR. HORNSHAW: Well, just to go beyond what
5 you were saying is that USEPA doesn't have the
6 toxicity criteria for inhalation for quite a few of
7 their chemicals that are in T.A.C.O., and so we
8 wouldn't even develop cleanup objectives for the
9 inhalation route because of the lack of data.

10 MR. KING: Okay, the next issue is the one on
11 risk levels. Mr. Reott made the statement earlier
12 about the importance of this issue and how you assign
13 risk level, its critical nature, and we certainly
14 would agree with that. It is fundamental to the
15 process of developing risk-based corrective action
16 objectives.

17 We start from the position not of looking at what
18 other states have done, because, you know, there's
19 certain value to doing that, but we think it's -- the
20 first place we have to start is with the Environmental
21 Protection Act and what did kind of the legislature
22 outline as a baseline there.

23 And there is the discussion of between one and ten
24 thousand and one in a million. There is also real

1 clear that where you're dealing with a residential
2 situation, the intended risk level is to be one in a
3 million. And so that's where we started our
4 development of our rules relative to this issue.

5 Early on, in fact even while we were talking about
6 in the context of the negotiations relative to the law
7 itself, we asked the question as we posed it here in
8 our response, and that was why should a person who's
9 working at a site be subjected to a greater risk of
10 cancer than a person who's residing at a site? The
11 question we asked previously in this proceeding as
12 well.

13 And Mr. Reott gave an answer to that question,
14 which was good, because we really haven't heard an
15 answer before. I don't think at least for me I didn't
16 -- I don't find the answer particularly persuasive.
17 As I understand it was really focusing on two things.
18 One is kind of looking at the fact, the exposure
19 function and the fact that the modeling assumes 25
20 years for people that are working, and that that's too
21 high of a number.

22 Well, if 25 years is too high of a number, then
23 the way one would deal with that is to change the
24 number on the exposure function, that's part of the

1 equation process. You don't change the risk level.

2 With the industrial/commercial sites there's
3 already an assumption built in that you have different
4 exposure functions and you calculate your remediation
5 objections based on those different exposure
6 functions. But still, you know, what is the end goal
7 as far as the risk?

8 The other argument he was giving I think was
9 basically related to the fact that workers may have
10 greater rights against their employers relative to
11 contamination issues at a site. And I don't find that
12 particularly persuasive as far as changing the risk
13 level.

14 There are certain situations where construction
15 workers come onto a site, they have to respond to
16 things in an immediate way, you know. We try to
17 account for that in our proposal. And again why
18 should those workers be subjected to higher levels of
19 risk?

20 You know, and the notion that maybe workers aren't
21 concerned with that kind of thing, the Board has seen
22 some pretty significant lawsuits where workers have
23 pressed issues relative to contamination within the
24 environment to which they could be potentially

1 exposed.

2 The other thing I think it's really important in
3 considering what other states have done and the
4 approach that USEPA takes, and it has to do with how
5 we've dealt with the point of human exposure. I don't
6 know if other states have that kind of concept there,
7 and I think unless there's a real good understanding
8 of how they work that concept, you really can't look
9 at those for -- and take a lot of value from that.

10 Because by one notion you could look at what we've
11 proposed and say that well, geez, you know, if you --
12 you could go under Tier 2 or Tier 3 and you could take
13 that Tier 1 number which might be based on 100
14 million, one in a million, and you could multiply and
15 you could end up having a number which is a hundred
16 times higher, which would represent a one in one
17 thousand risk, and say that that's the risk level.

18 Well, that's not the risk level, because the focus
19 here is not on levels of contamination at the site,
20 but what is the risk for people at the point where
21 they're being exposed or potentially exposed to the
22 contamination?

23 So we think that's really the key, and to --
24 really to assert different number levels without

1 understanding where it is that people are being
2 actually impacted, and the concerns of equity between
3 people who reside at a site and people who work at a
4 site, we think all merits staying with the risk
5 approach and the way we have presented it.

6 We've clearly allowed for a mechanism under Tier 3
7 to have a different risk level, and we've allowed for
8 the notion that where there's multiple contaminants
9 and you're dealing for instance with a soil situation,
10 you know, you don't have to adjust those Tier 1
11 numbers to make them lower, they can remain as they
12 are, and in essence you are at a risk level that's
13 higher than one in a million at that point.

14 Just that kind of concludes the discussion on that
15 topic.

16 The next topic was the use of variable compliance
17 distances and that was an issue presented by Mr.
18 Reott, setting forth a new set of tables which would
19 have various compliance distances.

20 The first thing I need to note there is that the
21 suggestion that the tank program incorporates a
22 compliance distance of 200 feet is wrong. That's not
23 -- it's 200 feet or the property line, and it's
24 critical to remember that, because the property line

1 in 98 percent of the cases is less than 200 feet.
2 That has a huge impact in how these issues are
3 addressed.

4 When the Board really -- and I -- and I know Mr.
5 Reott didn't think he was -- at least his conception
6 was that he wasn't rejecting the SSL approach with
7 using these variable distances, but from our
8 perspective we would consider that a rejection of that
9 approach because they do have -- they don't for the
10 migration to groundwater pathway incorporate that kind
11 of concept at all.

12 We had -- when the Board came out with that
13 variable distance approach as part of the underground
14 tank rules, I think it was a decision that the Board
15 had to make in light of the record that was presented
16 before them. We had presented a set of cleanup
17 objectives which was really kind of the same ones that
18 we had been using for a number of years, and the Board
19 really wanted to take things in a new direction, which
20 it certainly had the authority to do, and certainly
21 should be commended for taking things in a new
22 direction. But the record wasn't -- you know, wasn't
23 really all that clear as to what kind of approach
24 should be used.

1 You know, this is several years later, and I think
2 we've gone through a lot of work developing a proposal
3 and had done a lot of consideration of various
4 approaches. And we really don't think that that kind
5 of different compliance distance approach is very
6 workable. And we wouldn't want to see that because we
7 don't think it's very workable from an administrative
8 standpoint. We always had trouble after the Board had
9 adopted it as an interim strategy trying to figure out
10 how to make that work in an effective way.

11 The other problem that it creates is that on the
12 bottom end of the scale, and it was talked about here
13 earlier, that for instance with the situation with
14 banks is they are kind of concerned to make sure that
15 the most conservative numbers are met, if you're going
16 to have a range like it's talked about and what Mr.
17 Reott put together, you were going to have numbers as
18 conservative as what the Agency was using five or six
19 years ago. And we won't -- from my perspective won't
20 have made much progress through this whole rulemaking
21 development.

22 And just to point out an example for you, what
23 this chart shows, Mr. Reott had labeled this as Table
24 G, and, you know, for instance looking at the benzene

1 number for Class I at 10 feet, the number, compliance
2 number there is 5 parts per billion. Well, and for
3 sites that are within 25 feet from the property line,
4 they would be all less than 30 parts per million.

5 We have a vast number of tank sites in our
6 program, probably the majority are within the area
7 where the tank is at is within 25 feet of the property
8 line. This would end up then generating for something
9 like benzene would end up generating -- more
10 conservative numbers.

11 In fact it's one of the reasons why we made it
12 very clear in our proposal that if somebody calculates
13 a Tier 2 number that's more conservative than the Tier
14 1 number, they're to use the Tier 1 number, because we
15 do not want people who are going to use this in the
16 context of the tank program to go in, calculate more
17 conservative numbers with the notion that they will
18 get paid for those additional cleanup costs from the
19 tank fund. We don't want that to happen.

20 So those are our major concerns on the topic of
21 variable compliance distance. The issue about --

22 HEARING OFFICER DESHARNAIS: Excuse me, Mr.
23 King. Before we go on, we'll take a ten minute break.

24 MR. KING: Sure.

1 (A recess was taken.)

2 HEARING OFFICER DESHARNAIS: Mr. King, if you
3 would continue, please.

4 MR. KING: Okay. The next topic was the
5 issue of restricting use of institutional controls.
6 I'd like to -- we had trouble understanding what Mr.
7 Reott's real concern there was. Part of it I guess is
8 we saw a point being made, and the point was made in
9 the testimony today about the issue of the -- that
10 suggested that we should include some language so that
11 you could move the point of human exposure to the
12 property line without having an ordinance outside of
13 the context of an ordinance adopted by a unit of local
14 government.

15 Well, that's always been there, we've always
16 allowed that, so I guess we were kind of confused as
17 to the importance of that issue at this point, because
18 we've always said that a person can vary where the
19 point of human exposure is by adopting a land use
20 restriction relative to the property he owns, thus
21 move that point of human exposure from the source to
22 the property boundary. The other --

23 MS. McFAWN: Just for the record I think Mr.
24 Reott was talking about like a mutually agreed upon

1 restriction on groundwater use concerning the point
2 that you just addressed, is that your recollection?

3 MR. KING: I think that's part of it, yes.

4 MR. REOTT: Yes.

5 MS. McFAWN: And his other point was, and
6 maybe you were getting to this, Mr. King, was that
7 what if a municipality adopted a zoning ordinance that
8 did prohibit the use of that property as residential.

9 MR. KING: Yeah, I was going to get to that.

10 MS. McFAWN: Thank you.

11 MR. KING: The other issue, and again this is
12 kind of a side issue about -- I guess there was a
13 concern raised about how long it would take to file an
14 NFR letter with the county recorder. We just -- we
15 think that's kind of a routine process. I mean once
16 you've got the letter, you've sent some guy down there
17 with the fee and he files it. The notion of having
18 institutional controls and having those in place on
19 property we think is fundamental to the way this whole
20 regulatory structure is intended to operate.

21 One of the clear signals that we received very
22 early on, gee, this goes back to when I was sitting on
23 the Chicago Brownfields forum where there was a lot of
24 concern about people in the future, future

1 notifications that allowed future owners to understand
2 their responsibility relative to contamination at
3 sites, and so it really, you know, it's just -- we
4 think it's critical, and we don't think it's that
5 burdensome to file these NFR letters relative to a
6 site.

7 The second topic is a -- as was just alluded to is
8 the notion of zoning as an institutional control, and
9 comparing that to use of ordinances that are
10 prohibiting or regulating use of groundwater. Again
11 this is not something that we initially proposed, this
12 was something that was proposed by the Site
13 Remediation Advisory Committee.

14 They suggested that it be incorporated as an
15 important point relative to the use of groundwater,
16 and we had some understanding of at least some of the
17 ordinances that deal with that issue and we felt that
18 that was a viable approach.

19 It is going to interject us into a review of
20 community ordinances relative to groundwater usage,
21 we're willing to do that, but we don't want to be in a
22 position where we're reviewing every zoning ordinance
23 for every community that comes forward. Not every
24 community has an ordinance restricting use of

1 groundwater. I'd be surprised if every community does
2 not have an ordinance dealing with zoning issues.

3 So we don't want to get into this notion where
4 we're reviewing every single zoning ordinance. We
5 don't think it's really needed. We don't think that
6 those zoning ordinances end up being effective as an
7 institutional control.

8 There's opportunities for many variances relating
9 to zoning ordinances, and we just think it's kind of
10 an administrative burden that doesn't make a lot of
11 sense to follow. And as Mr. Reott was, you know, was
12 noting, that there -- or frequently these zoning
13 ordinances are set up so that they don't exclude all
14 -- they don't exclude residential uses as well.

15 The next topic was conservation property. Tom.

16 DR. HORNSHAW: When I originally read the
17 proposal by Mr. Reott, the way I understood his
18 language would be that if a property was contaminated
19 and wished to restrict the future use of the property
20 so that humans wouldn't be exposed, you make it into
21 some kind of a wildlife area.

22 And since I'm one of the Agency's project manager
23 for the Crab Orchard National Wildlife Refuge, I
24 immediately recognized what happened at Crab Orchard

1 where the property was used for munitions
2 manufacturing and some other war related industries
3 during World War II, and then promptly turned over to
4 the National Park Service as a wildlife refuge. And
5 of course that's now a major Super Fund site in the
6 southern half of the state.

7 It sounded to me what Mr. Reott was proposing is
8 what exactly did happen at Crab Orchard. And I
9 thought this doesn't seem like good public policy to
10 create the potential for more of these sites.

11 So that's the reasoning behind why the Agency is
12 concerned about using conservation property as a
13 recognized institutional control. And even going
14 beyond that concern, there are some chemicals which
15 are much more toxic to plants and wildlife than they
16 are to humans.

17 Pesticides by design are supposed to be more toxic
18 to the target species than they are to humans. And
19 some of the metals are also much more toxic to plants
20 or animals than they are to humans. And if we're
21 leaving behind levels of some of these chemicals that
22 are okay for humans, we may not be protecting the
23 plant and wildlife that the site is supposed to be
24 designated to be for their use.

1 So that was the reason that we had some concern
2 about using conservation property as an institutional
3 control.

4 MR. O'BRIEN: The next issue is pH specific
5 soil remediation objectives. This was an issue raised
6 variously by Miss Huff and Mr. Reott in their
7 testimony. The suggestion was made to extend the
8 range of pH's that were covered by extrapolation from
9 the existing data, and the Agency doesn't believe that
10 it's scientifically appropriate to extrapolate beyond
11 the well studied data that was in the USEPA SSL
12 document.

13 And as a chemist I can state that the extreme pH
14 ranges, there can be fairly dramatic changes over a
15 narrow pH range and solubility and speciation of these
16 metals. To illustrate that Miss Huff in her
17 Attachment F to her testimony has some graphs that
18 show that that can -- the types of dramatic changes
19 that can occur over narrow pH ranges at these
20 extremes.

21 And the Agency would prefer to look at that, at
22 the Tier 3 level so that we can look at the data in
23 more depth, rather than trying to extrapolate these
24 graphs.

1 We don't think that that will be a problem because
2 we've checked with the USDA and determined that less
3 than one percent of soils in the state have a pH
4 outside the range shown on the table.

5 The next issue is -- has to do with TCLP leach
6 tests, or as I call it performance based testing which
7 is one of the options that have been provided for
8 inorganics is to actually take the sample and to run
9 it through some type of a leach test to see how much
10 actually leaches out.

11 And the challenge in specifying that type of a
12 procedure is one that we considered is something that
13 can be done relatively quickly and economically, and
14 which will be predictive in terms of a short term
15 procedure over what's going to happen at a site
16 exposed to typical precipitation over an extended
17 period of time.

18 And the Agency feels most comfortable with the
19 Toxic Characteristic Leaching Procedure as you've
20 heard me several times previously testify. And for
21 three reasons.

22 One is it's a widely available test method that's
23 routinely performed for other purposes, so we're not
24 coming up with a new methodology that's going to be

1 more expensive and difficult to find laboratories that
2 can run the method.

3 Second is that the pH levels of the extraction
4 solutions are appropriate for expected acid rain pH
5 levels in Illinois. In my written testimony I've
6 provided some data that we have obtained regarding the
7 typical pH levels from the Illinois State Water Survey
8 of acid rain that have been measured recently.

9 And third is that this TCLP test method provides
10 for -- it's a buffered extraction solution or a
11 solution that has enough residual acidity in it that
12 during a static test that as that becomes neutralized
13 by the soils, that that acidity is maintained during
14 the 18 hour static test. And both the TCLP method and
15 an alternative that's been proposed by Mr. Reott
16 essentially contact a sample of soil with an
17 extraction solution for 18 hours.

18 But it's the same solution, it's not a flow
19 through test, it's a static test. And that's
20 supposed to mimic what happened when precipitation
21 falls and passes through this soil, which is it's
22 always new precipitation over some long period of
23 time.

24 So we believe that it's important that the

1 extractant solution not be essentially neutralized at
2 the beginning of the test, that it remain residual
3 acidity throughout the test, and that's why we believe
4 the TCLP test is being buffered with residual activity
5 is superior to the alternative that's proposed, which
6 is the Synthetic Precipitation Leaching Procedure that
7 Mr. Reott has pointed out.

8 Mr. Reott's also pointed out some publications
9 where the USEPA talked about what they thought the
10 applicability of the TCLP test is. However, those
11 really didn't address how we're proposing to apply it
12 in the context of these proposed regulations and this
13 regulatory context.

14 So I'm more comfortable with actually looking at
15 what are these tests that are intended to accomplish,
16 what are they intended to show, and where we make our
17 own evaluation of what is -- is this test appropriate
18 to show what we want to show in the context of the
19 regulations that we have in front of us.

20 And I guess the final issue we have, no, not -- a
21 related issue, is the -- with the TCLP test is that
22 Miss Huff stated that -- and perhaps it's a common
23 misconception, that the dilution-attenuation factor is
24 not included in the derivation of the TCLP based soil

1 remediation objectives for the migration to
2 groundwater.

3 And I think it's easier if I kind of walk you
4 through how that test is performed in a laboratory,
5 and most analytical methods, the output of the method,
6 what is reported out on a sample sheet is related back
7 to the mass of the original sample. So it's the
8 amount of the analyte that's detected, and that was in
9 that original sample, and as a proportion that's like
10 a weight proportion, also reported to say milligrams
11 per kilogram.

12 However, the TCLP test doesn't usually follow that
13 usual convention. It's reported out differently. The
14 results are reported out as the concentration of the
15 analyte that you're interested in of the whole
16 extraction solution. And it turns out that the amount
17 of extraction solution that you use in this particular
18 test is 20 times the weight of the sample.

19 So that in effect to correct the TCLP back to,
20 which would be the usual convention, would be divide
21 by 20.

22 However, as we're using it, for nonionizing
23 compounds in Equation S18 of Appendix C, to calculate
24 Target Soil Leachate Concentrations there's a

1 dilution-attenuation factor of 20. And if we were to
2 use a TCLP test result reported out in the more
3 conventional manner, you'd have the TCLP test result
4 divided by 20 times 20. So that just cancels out.

5 So we don't see a factor of 20 in there, because
6 by happenstance it cancels out in this instance. So
7 therefore, that's why we don't make any further
8 correction to the TCLP results as they're used in Tier
9 1.

10 And the last topic has to do with filtered versus
11 unfiltered samples, and we discussed this I guess at
12 the previous set of hearings. And we wanted to try to
13 put our argument together in a concise manner.

14 In particular Mr. Reott had addressed this issue.
15 And the Agency -- well, there was a question of why
16 didn't the Agency specifically introduce language in
17 this rulemaking to resolve the matter.

18 But this is fairly complex, it involves complex
19 issues of longstanding contention. The focal issue is
20 which approach is appropriate to determine the actual
21 risk at the point of exposure, and that is essentially
22 dependent upon the site-specific circumstances.

23 So for instance private wells are not required by
24 regulations that the Department of Public Health has

1 to install filters, and therefore to gauge the risk at
2 a residential setting, unfiltered samples should be
3 used in the opinion of the Agency, particularly where
4 that's being measured at a location where future use
5 of the groundwater is not going to be restricted in
6 any manner.

7 On the other hand, there are other situations
8 where filtered samples may be more appropriate, such
9 as where the groundwater is very turbid and would be
10 unpalatable without filtering, or when the sample is
11 being taken at a location where future groundwater use
12 is restricted and there's good reason to believe that
13 the particulates would be filtered out by the natural
14 geological median, therefore would not travel to the
15 same degree that the soluble portions of the
16 contaminants would in a groundwater.

17 An example would be say samples taken at a
18 landfill are usually filtered, because in most of
19 those cases those -- the particulates are not expected
20 to travel off-site and it's not expected that
21 groundwater use is going to be actually used for
22 drinking water at a landfill.

23 In the Agency's opinion this is a matter of a
24 site-specific and a program-specific determination and

1 that's more appropriately addressed in each program,
2 rather than the context of T.A.C.O.

3 HEARING OFFICER DESHARNAIS: Does that
4 conclude the Agency's presentation of its rebuttal
5 testimony?

6 MS. ROBINSON: Yes, it does.

7 HEARING OFFICER DESHARNAIS: Okay, at this
8 point we're going to stop today. Tomorrow we will
9 reconvene at 10 a.m. at the same location to address
10 questions to the Agency regarding its rebuttal
11 testimony and to address -- to allow Mr. Rieser and
12 Mr. Roy Wall to present their testimony, if Mr. Wall
13 does indeed make it.

14 MS. McFAWN: I would just mention that
15 tomorrow I hope that we can proceed with questions of
16 the Agency concerning its testimony this afternoon,
17 and I do stress that it be questions of the Agency.
18 If you have further comments, we will as time allows
19 allow you to summarize your position and perhaps your
20 rebuttal to the Agency rebuttal.

21 MR. REOTT: Surrebuttal.

22 MS. McFAWN: I don't mean to cut that off,
23 but I do highly recommend questions to the Agency on
24 its positions, rather than argument with the Agency.

1 HEARING OFFICER DESHARNAIS: So we will
2 recess until 10 tomorrow. Thank you very much.

3 (The hearing was in recess until January
4 16, 1997 at 10:00 a.m.)

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1 STATE OF ILLINOIS)
) SS
2 COUNTY OF SANGAMON)

3 CERTIFICATE

4 I, Susan Freeman, affiliated with Capitol
5 Reporting Service, Inc., do hereby certify that I
6 reported in shorthand the foregoing proceedings; that
7 the witness was duly sworn by me; and that the
8 foregoing is a true and correct transcript of my
9 shorthand notes so taken as aforesaid.

10 I further certify that I am in no way
11 associated with or related to any of the parties or
12 attorneys involved herein, nor am I financially
13 interested in the action.

14

15

16

17

18

19

20

21

22

23

24

Certified Shorthand Reporter
License No. 084-001342
Registered Professional Reporter
and Notary Public

Dated this 21st day of
January, A.D., 1997,
at Springfield, Illinois.

