

1 A P P E A R A N C E S:

2 ILLINOIS POLLUTION CONTROL BOARD:

3 MR. RICHARD R. MCGILL, JR., Hearing Officer

4 MR. THOMAS E. JOHNSON, Member

5 MS. ANDREA S. MOORE, Member

6 MR. G. TANNER GIRARD, Member

7 MR. GARY BLANKENSHIP, Member

8 MS. SHUNDAR LIN, Member

9 MR. ANAND RAO, Senior Environmental Scientist

10 MS. ALISA LIU, Technical Staff

11

12 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

13 1021 North Grand Avenue East

14 P.O. Box 19276

15 Springfield, Illinois 62794-9276

16 MS. KIMBERLY A. GEVING, Assistant Counsel

17 MR. GARY P. KING, Manager Remediation Management

18 MS. TRACEY HURLEY, Environmental Toxicologist

19 DR. THOMAS HORNSHAW, Manager, Toxicity Assessment

20 MS. JOYCE MUNIE, Manager Remedial Project Mgmt.

21 MS. HEATHER N. NIFONG, Programs Advisor

22 MR. HERNANDO A. ALBARRACIN, Section Manager

23 MR. ANDREW FRIERDICH

24

1 ILLINOIS ENVIRONMENTAL REGULATORY GROUP

2 215 East Adams Street

3 Springfield, Illinois 62701

4 MR. ALEC M. DAVIS

5

6 SITE REMEDIATION ADVISORY COMMITTEE

7 1901 Choteau Avenue MC 602

8 St. Louis, Missouri 53166

9 (314) 554-2233

10 MR. BRIAN A. MARTIN, CHMM

11

12

13 ALSO PRESENT:

14 DR. ATUL SALHOTRA, RAM GROUP

15 MR. RAYMONT T. REOTT

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1 HEARING OFFICER MCGILL: Good
2 morning. Happy St. Patrick's Day. Welcome to
3 Chicago. This is an Illinois Pollution Control
4 Board Rulemaking Hearing. My name is Richard
5 McGill. I'm the hearing officer for this
6 proceeding. It's docket R09-9, and the rulemaking
7 caption is, In the Matter of Proposed Amendments
8 to Tiered Approach to Corrective Action
9 Objectives, 35 Illinois Administrative Code 742,
10 also known as TACO.

11 The Illinois Environmental
12 Protection Agency has proposed to amend the
13 Board's TACO rules to add the indoor inhalation
14 route exposures and update remediation. The Board
15 held the first hearing for this rulemaking in
16 Springfield on January 27, 2009. Today is the
17 second hearing, and no additional hearings are
18 presently scheduled.

19 Also present today on behalf of
20 the Board, to my left, Board Member Johnson, the
21 lead Board Member for this rulemaking. To his
22 left, Chairman Girard. To his left, Board Member
23 Andrea S. Moore, and to her left Board Member Gary
24 Blankenship. Board Member Shundar Lin is it to

1 the far right of me, and immediately to my right
2 are our technical unit, Anand Rao and Lisa Liu.

3 In an effort to make today's
4 hearing as efficient as possible, I issued a
5 Hearing Officer Order on February 3, 2009,
6 requiring the filing of any pre-filed testimony,
7 questions and responses. Generally, these
8 materials are going to be entered into the record
9 as if read which will save us a lot of time, and I
10 will be designating them as hearing exhibits for
11 ease of citation.

12 To have the most orderly
13 transcript today, we're going to begin with the
14 pre-filed testimony, questions and responses
15 concerning the Agency's witnesses. This will be
16 followed by the pre-filed testimony of Raymond
17 Reott and then Harvey Pokorny and then Seth Cole,
18 GeoKinetics, and finally Brian Martin. After
19 that, anyone who did not pre-file testimony may
20 testify time-permitting. Based on filings, we
21 think we will have a fairly full day, so we're
22 going to take a lunch break from 1:00 o'clock till
23 2:00 o'clock, and if business remains at the end
24 of today, we do have a hearing room reserved for

1 tomorrow. It's a different room. It's room
2 2-2025. It's in this building, and we will start
3 at 9:00 o'clock.

4 Today's proceeding is governed
5 by the Board's procedural rules. All information
6 that is relevant and not repetitious or privileged
7 will be admitted into the record. Those who
8 testify today will be sworn in and may be asked
9 questions about their testimony. For those who
10 wish to testify and did not pre-file, there is a
11 witness sign-up sheet right here toward the front
12 of the room. I would ask for the court reporter,
13 that if you are speaking, to please speak up, try
14 not to talk over one another and not speak too
15 quickly so we get a nice, clear transcript.

16 Are there any questions about
17 our procedures today? Okay, seeing none, I'm
18 going to start with the Agency's witnesses.

19 We've got some documentation --
20 again, this will take us a few minutes right now,
21 but in the long run save us a lot of time. Absent
22 any objections, the pre-filed testimony questions
23 and responses concerning the Agency's witnesses
24 will be entered into the record as if read. First

1 up is there any objection to entering as if read,
2 any of the February 23, 2009, pre-filed testimony
3 of Heather Nifong, Thomas Hornshaw or Tracey
4 Hurley. Seeing none, each is so entered.

5 Next, is there any objection to
6 entering as if read any of the pre-filed questions
7 of Raymond Reott? Seeing none, each is so
8 entered.

9 Next, is there any objection to
10 entering as if read any of the pre-filed questions
11 of the Illinois Environmental Regulatory Group?
12 Seeing none, each is so entered.

13 The deadline for pre-filing
14 testimony was February 24th, and on March 9th, the
15 Board received pre-filed testimony of Tracey
16 Hurley corresponding to an Errata Sheet Number 4.
17 Is there any objection to entering as if read the
18 pre-filed testimony of Tracey Hurley? Seeing
19 none, that is so entered.

20 Finally, is there any objection
21 to entering as if read the pre-filed responses of
22 the Agency? Seeing none, each is so entered.

23 Now, I'm going to quickly
24 designate each of these and some other related

1 designating as a hearing exhibit U.S. EPA 2005,
2 "Revised Guidelines For Carcinogenic Risk
3 Assessments," which was filed with the Agency's
4 February 23 as pre-filed testimony? Seeing none,
5 that will be Hearing Exhibit 13.

6 Is there any objection to
7 designating as a hearing exhibit the pre-filed
8 testimony of Tracy Hurley filed on February 23,
9 2009? Seeing none, that will be Hearing
10 Exhibit 14.

11 Next, is there any objection to
12 designating as hearing exhibit the Agency's Errata
13 Sheet Number 3, which was filed with the
14 February 23, pre-filed testimony? Seeing none,
15 Errata Sheet Number 3 will be Hearing Exhibit 15.

16 Next, is there any objection to
17 designating as a hearing exhibit the pre-filed
18 questions of Raymond Reott? Seeing none, that
19 will be Hearing Exhibit 16.

20 Next, is there any objection to
21 designating as a hearing exhibit the pre-filed
22 questions of the Illinois Environmental Regulatory
23 Group or IERG? Seeing none, that's Hearing
24 Exhibit 17.

1 Is there any objection to
2 designating as a hearing exhibit the pre-filed
3 responses of the Agency? Seeing none, that's
4 Hearing Exhibit 18.

5 Is there any objection to
6 designating as a hearing exhibit the pre-filed
7 testimony of Tracy Hurley filed on March 12, 2009?
8 Seeing none, that's Hearing Exhibit 19.

9 Is there any objection to
10 designating as a hearing exhibit the Agency's
11 Errata Sheet Number Four, which was filed with the
12 March 12th pre-filed testimony? Seeing none,
13 that's Hearing Exhibit 20.

14 Finally, there are three
15 publicly available U.S. EPA documents that have
16 been mentioned in the filings, and they need to
17 become part of the record. I have copies of these
18 documents. I'd like to designate them as hearing
19 exhibits. The first is U.S. EPA September 2005
20 document entitled "Uncertainty in the Johnson
21 Ettinger model for Vapor Intrusion Calculations,"
22 that would be Hearing Exhibit 21, unless there's
23 any objection. Seeing none, that will be Hearing
24 Exhibit 21.

1 Second, U.S. EPA September 2005
2 document entitled, "Review of Recent Research On
3 Vapor Intrusion." Any objection as entering that
4 as a hearing exhibit? Seeing none, that will be
5 Hearing Exhibit 22.

6 Finally, U.S. EPA Oswer,
7 O-S-W-E-R, Directive 9610.17, March 1, 1995,
8 document entitled, "Use of Risk Based
9 Decision-Making in U.S. T-Corrective Programs".
10 Any objection entering that as a hearing exhibit?
11 Seeing none, that will be Hearing Exhibit 23.

12 With that, I would ask the court
13 reporter to please swear in the Agency's witnesses
14 collectively.

15 (Witnesses sworn.)

16 HEARING OFFICER MCGILL: Thank you.
17 I would now ask Agency Attorney Kimberly Geving to
18 begin -- is that the pronunciation?

19 MS. GEVING: Yes.

20 Good morning. I'm going to make
21 introductions before we go into summaries. To my
22 immediate left is the Dr. Atul Salhotra, Director
23 of the Risk Assessment & Management Group. To my
24 immediate right is Heather Nifong, the program's

1 advisor for the Division of Remediation
2 Management. To Heather's right is Tracey Hurley,
3 Environmental Toxicologist. One more to the right
4 Dr. Tom Hornshaw, manager of the Toxicity
5 Assessment Unit. To Dr. Hornshaw's right is Andy
6 Friedrich, Project Manager in the State's Site's
7 Unit. To Andy's right, Gary King, Acting Chief of
8 the Bureau of Land. To Gary's right, Hernando
9 Albarracin, Manager of the Leaky Underground
10 Storage Tank Section. And finally to his right,
11 Joyce Munie, Manager of the Remedial Project
12 Management Section.

13 And with that, I will turn it
14 over for very quick summaries on the testimony
15 we've pre-filed.

16 MS. NIFONG: At the request of the
17 Board back at the hearing in Springfield, you had
18 asked us to reconsider the definition of
19 "Residential Property," and so we have revised
20 that, and I will read it to you briefly.

21 (READING:) "Residential Property
22 means any real property that is used for
23 habitation by individuals or where children
24 have the opportunity for exposure to

1 contaminants through soil injection or
2 inhalation, indoor or outdoor, at
3 educational facilities, healthcare
4 facilities, childcare facilities or
5 recreational areas."

6 We've also added new definitions
7 for geological terms. And so we have definitions
8 for capillary fringe, saturated zones and water
9 table. We are also adding a fourth term
10 "unconfined aquifer." All of those terms come
11 from the United States Geological Survey Water
12 Basics Glossary of Terms. Would you like my to
13 read those definitions as well?

14 HEARING OFFICER MCGILL: It's up to
15 you.

16 MS. NIFONG: The definition for
17 capillary fringe, means the zone above the water
18 table in which water is held by surface tension.
19 Water in the capillary fringe is under pressure
20 less than atmospheric.

21 Saturated zone means a
22 subsurface zone in which all the interstices or
23 voids are filled with water under pressure greater
24 than that of the atmosphere.

1 Water table means the top water
2 surface of an unconfined aquafir at atmospheric
3 pressure. And unconfined aquafir means an aquafir
4 whose upper surface is a water table free to
5 fluctuate under atmospheric pressure.

6 To describe the relationship
7 between those terms, we've also included as a
8 study cited, a document called, "The Basic
9 Groundwater Hydrology Survey Water Supply Paper
10 2220," which you've entered as an exhibit. It
11 includes both a diagram and a narrative describing
12 how these terms interrelate to one another.

13 Lastly, we have we'd like to
14 amend our response to pre-filed question No. 7,
15 which was originally submitted back on
16 January 13th by the Illinois Environmental
17 Regulatory Group. As originally written, the
18 answer could be interpreted to include that the
19 Agency would not take into the account the length
20 of time needed for contaminants to migrate
21 horizontally. So to our answer we would like to
22 add these following paragraphs: When either soil
23 gas or groundwater data are used to demonstrate
24 compliance, the number of sampling grounds

1 required will be determined by the program under
2 which the site is being remediated. This is
3 because soil, gas or groundwater samples collected
4 after a recent spill or release may not represent
5 the actual impact from contaminants migrating in
6 groundwater. Repeat samples may be necessary to
7 address this time lapse and ensure that the
8 migration of the contaminant spooned is fully
9 evaluated.

10 That concludes my summary.

11 HEARING OFFICER MCGILL: Thank you.

12 MS. GEVING: The next summary will be
13 by Dr. Tom Hornshaw.

14 DR. HORNSHAW: Good morning.

15 HEARING OFFICER MCGILL: Good
16 morning.

17 DR. HORNSHAW: I provided
18 supplemental testimony in support of some of the
19 things that are put into Errata Sheet Number 3.
20 I'll briefly describe what I did for that Errata
21 sheet.

22 Two chemicals have had their
23 toxicity criteria upgraded by U.S. EPA since we
24 began these proceedings. It's not unusual to see

1 them change the toxicity criteria. For the
2 chemical nitrobenzene, reference dose for oral
3 exposures was updated, a brand-new reference
4 concentration was added for inhalation exposures,
5 and designation, the previous designation as
6 D-carcinogen, not classifiable, was upgraded to be
7 likely carcinogenic using EPA's revised cancer
8 storing methodology. This required us to update
9 the ingestion values, add new inhalation values to
10 the proposal, and change the definition of
11 carcinogen to reflect the new guidance from the
12 EPA. I might add a note also that the groundwater
13 standard that's proposed for in 620 for
14 nitrobenzene will also have to be updated. I am
15 not sure of the mechanism for that, but it will
16 have to be done since nitrobenzene's groundwater
17 standards will be changed because there will be
18 changes in the references.

19 Regarding the chemical,
20 trichloroethylene, an assistant administrator's
21 memo, which we have supplied as attachment to my
22 testimony, added air criterion of 10 micrograms
23 per cubic meter from New York's State Department
24 of Health as one of the acceptable criteria for

1 dealing with trichloroethylene. Previously they
2 had recommended, EPA had recommended the
3 California EPA value, but when we looked at the
4 value from New York, which is about 30 folds
5 smaller than California EPA one, we realized that
6 this was going to possibly cause some of the
7 values to change in the proposal. We looked at,
8 first of all, the derivation of California's and
9 New York's standards and determined that the
10 toxicity information and the overall strength of
11 the study was better for the New York criterion
12 than for the California criterion. So we felt
13 comfortable using that value. And when we did
14 recalculations for the inhalation route, it turns
15 out that the old inhalation value for the
16 construction worker, which was based on a cancer
17 at one point, was now higher than the value for
18 noncancer effects based on the New York criterion.
19 It's a factor of three smaller. So that's the
20 changes we are proposing for trichloroethylene.
21 It only pertains to construction worker inhalation
22 sampling.

23 The next issue that we addressed
24 left over from the previous hearing, was the issue

1 of averaging. And we decided that -- we had some
2 further discussions in which SRAC was not able to
3 come up with a consensus definition or approach
4 for averaging. But they did agree that averaging
5 was not appropriate for groundwater and for soil
6 gas. Only for soil itself. Which we pretty much
7 agreed with, since the language in Section 225D
8 already says that. But it's not specific. So we
9 decided to make it specific and say that section
10 pertains to both indoor and outdoor inhalation
11 pathways, and that averaging is appropriate for
12 both indoor and outdoor.

13 I've been advised that I need to
14 define SRAC, that's the Site Remediation Advisory
15 Committee.

16 HEARING OFFICER MCGILL: Thank you.

17 MS. GEVING: The next summary would
18 be Tracey Hurley's --

19 DR. HORNSHAW: Wait. So to wrap up
20 the averaging story, we are adding outdoor and
21 indoor to the definition of 225D, and dropping the
22 proposed 225B(5) section, which was one that
23 prohibited averaging in the first place, and that
24 has been agreed to by SRAC.

1 Finally, there's a whole lot of
2 text changes that, both internal to the Agency and
3 external to the Agency, were recommended to us or
4 suggested to us. We agreed with the whole bunch
5 of them, and they are as you see in there.

6 That concludes my summary.

7 MS. GEVING: Next would be the
8 summary by Tracey Hurley on those changes in
9 Errata Sheet 3 and then Errata Sheet 4.

10 MS. HURLEY: Good morning. During
11 the last hearing, set of hearings we received
12 questions from the Board on Appendix C, Table B
13 and Appendix C, Table D about the "Source" column.
14 So in response to those concerns, we are changing
15 the source for the symbols RFC, RFDO, SFO and you
16 are URF in Appendix C, Table B. And symbols RfDI,
17 RDo, SFi, SFo in Appendix C, Table D. The source
18 will now refer readers to the Illinois EPA's
19 website, and that contains tables of the toxicity
20 values, and those tables are updated quarterly.

21 Also during the last set of
22 hearings, the hearing officer asked for the
23 sources of the default physical and chemical
24 parameters that were listed in Appendix C, Table

1 E. So in response to this request we are adding a
2 new footnote to this table that will list the
3 source of the data.

4 Also, during that last set of
5 hearings, the hearing officer asked for pages that
6 I was referencing to Rick Cobb's testimony and Tom
7 Hornshaw's testimony from the Part 620 hearings,
8 and my supplemental testimony lists those pages.

9 We are making a clarification to
10 Appendix C, Table M, the "Parameter" column for
11 the symbol Cvsat should be corrected to read, "Soil
12 Vapor Saturation Concentration." The word
13 "saturation" was inadvertently omitted.

14 And also, we received some
15 questions about the conversion factors in the
16 units for some of the equations listed in Appendix
17 C, Table L. So we have added units to clarify
18 those equations. Those were all in Errata
19 Sheet 3.

20 Errata Sheet 4, we are
21 correcting some of the values to two significant
22 figures. Those are listed in my testimony in
23 support of Errata Sheet 4, so I will not go
24 through those.

1 In Appendix B, Table C, we are
2 changing the Arsenic Class 1 Groundwater
3 Remediation Objectives for the PH Specific Soil
4 Remediation Objectives for the soil component of
5 the groundwater ingestion route for Class 1.
6 Because of the changes to Arsenic Class 1
7 Groundwater Remediation Objectives, these PH
8 specific values were less than background. So we
9 are, instead of having the numerical values for
10 arsenic listed in this table, we are deleting the
11 numerical values and referring readers to the
12 background table.

13 Our Appendix C, Table E, for
14 MTBE, methyl-tert-butyl ether. We had a value for
15 first order degradation constant listed. This
16 value should be deleted and replaced with no data.
17 And during the hearings for TACO R00-19 amendment,
18 the Illinois EPA presented evidence that MTBE does
19 not degrade under some circumstances, and
20 therefore we have recommended a value of 0, and
21 this was described in Tom Hornshaw's testimony on
22 that rulemaking.

23 Also one other change, one other
24 correction, to Appendix C, Table L. For equation

1 J and E, the units after the 1000 conversion
2 factor in the denominator should be micrograms per
3 milligram, and this is a correction to a change
4 that was made in Errata Sheet 3.

5 That concludes my testimony.

6 HEARING OFFICER MCGILL: Thank you.
7 Before we open it up generally, I just have one
8 question.

9 You mentioned the Illinois EPA
10 website as being added, I think, to one of the
11 tables or appendices in Errata 3. What is it, if
12 you click on that link, what is it that it takes
13 you to, a list of sources?

14 MS. HURLEY: It takes you to the
15 actual values. It's an EXCEL spreadsheet, and it
16 will list the actual values for the different
17 parameters for each chemical in TACO.

18 HEARING OFFICER MCGILL: Okay. You
19 say that changes though, the website information?

20 MS. HURLEY: It's updated quarterly
21 -- updated quarterly.

22 HEARING OFFICER MCGILL: You don't
23 think that will be changing the rule, though? I
24 mean, let's say, the values and the rule are

1 not --

2 MS. HURLEY: No, the values and the
3 rule are not updated quarterly. The Tier I values
4 are not updated quarterly.

5 HEARING OFFICER MCGILL: Okay.
6 Thank you. The Board has questions it wanted to
7 pose to some of the Agency witnesses, but we'd
8 like to open it up first to any members of the
9 public who may have any questions for any of these
10 witnesses? Again, some questions have been posed
11 to them in pre-file form and there have been
12 responses, so any follow-up or any new questions?

13 MR. DAVIS: Alex Davis on behalf of
14 the Illinois Environmental Regulatory Group. I
15 actually don't have any follow-ups on the
16 pre-filed questions, but in response to
17 Ms. Hurley's testimony just now in your
18 questioning I was curious to know, what exactly is
19 it that's being updated quarterly?

20 MS. HURLEY: The toxicity values
21 will be updated quarterly, if there are changes
22 with U.S. EPA or IEPA, whatever sources is used
23 for the toxicity data, they are updated quarterly.
24 Our values on the website are updated to reflect

1 those changes.

2 MR. DAVIS: So will it still be
3 possible for someone looking at the regulations to
4 determine what the source of the number contained
5 in the regulation is?

6 MS. HURLEY: I do not recall that we
7 list a source for the toxicity value on the
8 website.

9 MR. DAVIS: So the table just
10 contains the values, not the source of the values?

11 MS. HURLEY: I'm not sure.

12 MR. DAVIS: Okay.

13 HEARING OFFICER MCGILL: Perhaps the
14 Agency, if our next stage is public comment, could
15 clarify that.

16 Obviously, one of the concerns
17 is that Administrative Procedure Act type concern,
18 that the rule can't simply change when the
19 Agency's website is updated. We've got to go
20 through the whole EPA rulemaking process. So any
21 additional questions?

22 MEMBER RAO: I have a follow-up in
23 what Mr. McGill was saying. Maybe the Agency can
24 consider putting the source, as the Board notes

1 that doesn't carry the same weight as a rule
2 requirement?

3 HEARING OFFICER MCGILL: Seeing no
4 additional questions for the Agency, any of the
5 Agency witnesses, the Board will proceed with its
6 questions.

7 Would any of the Board members
8 present like to pose any questions before staff
9 begins?

10 MEMBER RAO: We have a few questions
11 for the Agency. Some of them are follow-up to
12 your responses to pre-filed questions and some are
13 based on your pre-filed testimony.

14 The first question refers to a
15 response to Mr. Reott's question No. 7. In your
16 response you state that IEPA reviewed the articles
17 identified by Mr. Reott in his pre-filed
18 questions. I think they were two U.S. EPA
19 articles that Hearing Officer entered into the
20 record, and you note in your response that you
21 have reviewed those articles, and it's appropriate
22 for the Board to consider any relevant
23 information. Could you please comment on whether
24 the concerns expressed in those articles regarding

1 the *J&E model are addressed by the modeling
2 parameters chosen by the Agency in developing the
3 proposed regulations.

4 MR. KING: There's obviously a lot
5 of information out there relative to vapor
6 intrusion issues, and, yes, there are articles
7 that are critical of some of the modeling
8 parameters and issues related to the J&E model.
9 We are unaware of any other model that's being
10 informally used to develop screening values. So
11 in essence no one has proposed anything better,
12 and it's certainly an issue. We've looked to try
13 to find better models. We've tried to review what
14 other organizations have used, and we think, for
15 whatever flaws, it may have, it's the best
16 approach that is out there, and really is a model
17 that is built on the concepts that have been in
18 TACO all along.

19 MEMBER RAO: Okay.

20 MEMBER LIU: Good morning.

21 Mr. King, this might be another good question for
22 you or anyone from the Agency who would like to
23 answer.

24 This is in regard to the J&E

1 model as it pertains to T-sites. In Mr. Reott's
2 pre-filed question, No. 8, he asks why the Agency
3 would propose a J&E model for U.S. T-sites when
4 U.S. EPA doesn't recommend it. On his pre-file
5 testimony on page 4 he quoted part of the U.S.
6 EPA's document from 2004 that the Agency provided
7 as part of its petition, and that document on
8 page 67 stated, "EPA is not recommending that the
9 J&E model be used for sites contaminated with
10 petroleum products if the products were derived
11 from underground storage tank sites, "and then the
12 document goes on to explain that the J&E model
13 does not account for contaminant attenuation,
14 desired liquidation, hydrologists resorption and
15 oxidation reduction. The same document goes on
16 and continues after the vapor pathway at UST
17 sites, "EPA is not recommending that investigators
18 use Oswer directive 9610.17 which is the use of
19 risk based decision making and U.S. T-corrective
20 action programs. That's the document that Richard
21 or Hearing Officer entered earlier this morning as
22 Exhibit 23.

23 The particular document actually
24 includes an attachment A, which actually

1 references the Illinois EPA TACO program, and my
2 question was, that since the Agency's proposal
3 intends to use the J&E model for remediation at
4 petroleum U.S. T-sites, as well other sites, if
5 you could just please comment on whether the use
6 of the model is consistent with this Oswer
7 directive?

8 MR. KING: Here's the way we
9 approached that issue. Again, we have tried to,
10 since 1997, adopt the approach that the
11 environment does not care what unit has been
12 artificially designated relative to where that
13 contaminant is coming from. If the contaminant is
14 in the environment and it comes from a tank, U.S.
15 T-tank or comes from another tank in the ground or
16 comes from some drum that's been disposed of, we
17 want to look at the contaminants. I mean, from
18 our standpoint, one of the contaminants that we
19 deal with relative to underground storage tanks
20 and petroleum products is again Benzene. Well,
21 what are we supposed to do now? Do we include
22 Benzene or not include Benzene. Are we going to
23 say we deal with Benzene if it comes from a
24 littoral release but we're not going to deal with

1 Benzene if it comes from a petroleum release? If
2 we were to do that, that would be inconsistent
3 with the way we've approached TACO for all these
4 years. You know, we don't say in the rule that
5 we're going to have Benzene apply to this program,
6 and we don't say that we're going to have TCE
7 apply to that other program. We've just always
8 taken the philosophy that a come contaminant in
9 the environment needs to be addressed, regardless
10 of the legal designation that people have given
11 it. So, yes, the U.S. EPA has said that. I don't
12 know, they made some problematic reasons for doing
13 that. It doesn't seem to fit into the context of
14 the way we had put our rule together.

15 MS. LIU: I think one of the things
16 the U.S. EPA noted about the J&E model was that it
17 didn't account for attenuation like
18 biodegradation, which is something you would want
19 to see with Benzene in particular. If over the
20 course of several years, natural attenuation has
21 occurred at a petroleum unit T-site where an NFR
22 letter was issued that required a building control
23 technology, would the owner have the opportunity
24 after several years to reevaluate that site and

1 perhaps request a revised NFR if that building
2 control technology was no longer needed?

3 MR. KING: That's absolutely true,
4 and that's been true across the TACO since it
5 started. If circumstances change and the
6 contaminants have attenuated and it's no longer an
7 issue, then the context of the NFR letter can be
8 changed.

9 MS. LIU: Thank you.

10 MS. GEVING: I have one follow-up
11 question. Mr. King, what would be the procedure
12 for getting a reevaluation of that NFR letter?

13 MR. KING: If the evaluation
14 occurred in the tank program, then that
15 reevaluation would occur in the site remediation
16 program. Because once you have, the way the tank
17 rules are set up, once you have an NFR letter, you
18 get one of those and you don't come back into the
19 LUST program.

20 MS. GEVING: That's Leaky Underground
21 Storage Tank Program.

22 MEMBER RAO: Mr. King, I have one
23 more for you. This relates to the J&E model.
24 This is referring to your response to Mr. Reott's

1 question No. 9. Your response, "The Agency states
2 that the Illinois EPA is not recommending the use
3 of this model where underlying assumptions of the
4 model are violated." Could you please comment on
5 how the Agency's proposal addresses any
6 limitations concerning the application of J&E
7 model? Does the rule, you know, specify under
8 what conditions the model can be used for and
9 cannot be used as proposed?

10 MR. KING: Well, let me -- a couple
11 of the things that can be done, and again, this is
12 the type of issue that we address under existing
13 TACO rules because under existing TACO rules there
14 are certain context under which the assumptions
15 don't work. That's why we have Tier 3, which
16 allows people to use, come up with a different
17 approach on a more site specific basis, and it's
18 also one of the reasons why we developed -- under
19 previous TACO rules we've had the engineer
20 barrier concept and under this rule we have the
21 building control technology concept. So that is a
22 couple ways that a site owner or operator could
23 address this context, this issue, when those
24 assumptions don't apply relative to the rule.

1 MR. RAO: So what you are saying is
2 we don't have to spell it out in the rules, but
3 the Agency has the discretion to do that as part
4 of the implementation?

5 MR. KING: That's the way we've
6 implemented it over the years.

7 MR. RAO: Okay.

8 MS. LIU: Along those lines, when
9 you talking about using site specific information
10 in a Tier 3 analysis, I was wondering if that
11 might conflict with one of the sections that, the
12 way it's proposed to be worded, Section 742.700,
13 which is the Tier 2 soil evaluation notary view,
14 subsection F(1) and it states, "For the indoor" --

15 MR. KING: Can you hold on a second
16 so I can get there.

17 MR. GEVING: Could you repeat the
18 section one more time?

19 MEMBER LIU: 742.700(F)(1). This
20 relates to Tier 2, but I was wondering if it
21 relates to the site specific flexibility. The
22 section states, "for the indoor inhalation
23 exposure route only the J&E equations can be
24 used."

1 MR. KING: I don't believe we have a
2 similar statement to that in Tier 3. That
3 statement would only apply to Tier 2. It would
4 not apply to Tier 3.

5 MEMBER RAO: I have one more
6 question. Again, it is related to Mr. Reott's
7 concern of the buildings chosen by IEPA for the
8 J&E model. If site specific parameters produce
9 significantly different results, could you please
10 clarify the opportunity the medial applicants have
11 to use a site specific approach when choosing the
12 site of the building.

13 MR. KING: That can be done under
14 Tier 3, if they wanted to do a site specific
15 building. However, one of the reasons why we
16 steered away from that, under Tier 1 is you would
17 end up conditioning every NFR letter based on the
18 size of the building, which would then mean that
19 building would have to stay there kind of thing,
20 and it would really limit the transferability of
21 those NFR letters. So we think that's --
22 obviously with some buildings where they are very
23 large, particularly with an industrial-commercial
24 building, a very large building, it would be

1 appropriate to use a different methodology or
2 different building size than the Tier 3.

3 MEMBER RAO: Does the Agency think
4 that if somebody wants to go to Tier 3, will it
5 have a significant cost impact or is it something
6 that --

7 MR. KING: You know, we sat here in
8 1997, I think you asked me the same question.

9 MEMBER RAO: It keeps coming back.

10 MR. KING: -- relative to Tier 3.
11 There was a concern back in '97 that are there
12 going to be too many Tier 3 determinations that
13 people aren't going to be able to work through,
14 and I think things have sorted themselves out very
15 well. I think things will sort themselves out in
16 this context as well.

17 MEMBER RAO: That's good to know.

18 HEARING OFFICER MCGILL: Was any
19 thought given to whether you could have a Tier 1
20 residential number based on an assumed -- I assume
21 your building size is small?

22 MR. KING: It is, yes.

23 HEARING OFFICER MCGILL: And also
24 have a Tier 1 commercial-industrial that's for a

1 larger building.

2 MR. KING: Well, the industrial
3 commercial number is based on a building size that
4 is larger.

5 HEARING OFFICER MCGILL: Okay.

6 MR. KING: But it's not a large
7 building. It's more of a small, retail structure.
8 More like, I don't know, like a fast food
9 restaurant or some kind of size like that. It's
10 intended for a smaller industrial-commercial
11 building, but not as small as a residential.

12 HEARING OFFICER MCGILL: That's to
13 cover all of the different commercial scenarios as
14 opposed to when I think industrial, I think of a
15 much larger building.

16 MR. KING: Right. I mean,
17 remembering it is industrial/commercial. So you
18 could have a smaller building included within that
19 context.

20 HEARING OFFICER MCGILL: Thank you.

21 MEMBER RAO: My next question refers
22 to 742, Appendix C, Table M, for J&E parameters,
23 and in this table for site specific evaluations,
24 you allow the width and height of an

1 industrial/commercial building, it allows the use
2 of site specific values. But for length of the
3 building it does not include an option for site
4 specific values. So should there be a connection
5 here or is that what the Agency intends with this
6 requirement?

7 MR. KING: I'm still trying to find
8 Appendix C, Table M. You're commenting that L(b) is
9 different from A(b)?

10 MEMBER RAO: Yeah, W(b) and H(b).
11 You could have a site specific value for those,
12 but not for L(b).

13 MR. KING: We'll look at that.
14 That's a change I think we should make.

15 MEMBER LIU: I have another question
16 regarding Mr. Reott's question No. 2, as it
17 pertains to the depth of contamination. The
18 Agency's response indicated that it used different
19 space and transport models to develop the two
20 pathways referring to the indoor versus the
21 outdoor, and as a result of the Illinois EPA's
22 work in developing the indoor inhalation proposal,
23 the outdoor inhalation pathway would need to be
24 reviewed to account for the disparity that he was

1 discussing. The Agency indicated that it was
2 evaluating the outdoor inhalation pathway, that
3 evaluating the outdoor pathway was not part of
4 this rulemaking. So I beg the question, does the
5 Agency intend to do something along those lines in
6 the future?

7 MR. KING: We -- I mean, as you can
8 see from what we've done with this rulemaking
9 process, I mean, adding vapor intrusion has been a
10 complex pathway to add on. We've made many
11 updates to the Tier 1 tables relative to all sorts
12 of parameters. We were constantly, in evaluating
13 what we were doing, we didn't want to lose contact
14 with what we were -- the principle thing that we
15 were trying to drive home here, and that was that
16 we felt we needed to have the indoor inhalation
17 pathway added to TACO. It's not the same
18 methodology. We did something different back in
19 '97. I don't think there's -- we are going to go
20 back and look at it, but I don't think there's a
21 real -- we haven't seen a real urgency to do that.
22 We think that what has -- what's in the existing
23 rule for outdoor inhalation has worked
24 sufficiently, and we are going to go back and look

1 at that and there would be another proceeding at
2 some point, but we don't think it's been a real
3 significant problem.

4 MEMBER LIU: Thank you.

5 HEARING OFFICER MCGILL: I had a
6 question about some of the other rules that, as
7 we've been proceeding in this rulemaking, it's
8 become apparent that there will be a need to make
9 amendments in some of the U.S. T provisions, and
10 also at a minimum I think the Site Remediation
11 Program for the Residential Property definition.
12 Does the Agency have a timeline in mind to propose
13 any of these corresponding changes?

14 MR. KING: Well, the tank
15 regulations, I mean, you are probably -- one is
16 aware that some of the financial issues that tank
17 sites is facing right now -- I mean, we are in the
18 red by a long ways. I mean, we're 18 months
19 behind in payments, and we think there's going to
20 have to be a new program. There's a resolution
21 that's going through, that's being prepared for
22 the General Assembly, that's going to end up with
23 some kind of new statutory for tank sites,
24 probably in 2010, and I'm sure that's going to

1 require an additional rulemaking on top of that.
2 So you know, we didn't want to try to do too much
3 with the tank rules this calendar year when we
4 might have a whole new system next year,
5 legislative system. The SRP rules, we'll have to
6 make some changes, but those seem to be -- they
7 are working pretty good the way they are right
8 now. So we haven't seen the need for the kind of
9 updates that we have with some of the others.

10 MEMBER LIU: I have another question
11 regarding NFR letters. And in Brian Martin's
12 pre-filed testimony he made makes a suggestion to
13 the Illinois EPA about the applicability of the
14 amendments being based on the date of the Remedial
15 Action Completion Report and he suggests that it
16 be based on the date that it was submitted and
17 considered complete and acceptable. Over the
18 years, the TACO regulations have been revised
19 several times, and I was wondering if the Agency
20 would please elaborate on how they have handled
21 NFR letters during transitional periods in the
22 past.

23 MR. KING: What we have done in the
24 past is that when a rule becomes effective, then

1 it's applied relative to those sites. We're
2 sensitive to what Mr. Harden talked about in his
3 proposal. What we were seeing a little bit
4 difficult for us to handle is that TACO doesn't
5 set up those timing kind of issues to do what he
6 suggested. It will require us to go into the SRP
7 rules, Part 740 to make those changes. I don't
8 think we can do that in 742. I mean, I suppose --
9 I am not advocating this as an approach, but I
10 suppose the Board could make some mention of it in
11 their opinions, that that was something for us to
12 consider. We made a couple of things pretty clear
13 to persons who are performing clean-ups under our
14 programs relative to vapor intrusion issues. The
15 first is that there's been considerable lead time
16 relative to completing projects under the existing
17 rules. I mean, we started discussing this effort
18 with people outside the Agency, well, at least a
19 year ago, if not earlier than that. And we filed
20 the proposal in September. I'm not expecting that
21 the Board is going to have an adopted rule until
22 the fall of this year. I mean, I'm just kind of
23 gauging what I would expect your schedule to be,
24 perhaps at the earliest from the kind of looks I'm

1 getting. Which means that anybody out there is
2 going to have a full year, even seeing the Board's
3 proposal, to come in and gotten their NFR letters
4 before this rule takes place, goes into effect.
5 We're already starting to see sites go through our
6 Site Remediation Program addressing the indoor
7 inhalation pathway, and I think that's going to
8 continue. So we're already beginning a transition
9 process. And, again, for those who come in, it is
10 strictly on a voluntary basis, and we're reviewing
11 that against our set of criteria that we proposed.
12 It certainly puts people in a position where, then
13 they are going to have an NFR letter that will
14 really address the issues of indoor inhalation as
15 the rule becomes effective.

16 If the sites that are have
17 addressed indoor inhalation by the time this rule
18 becomes effective, it's because they have chosen
19 not to do so. There's been plenty of time, and
20 we've created the opportunities, we're reviewing
21 things ahead of time, where they choose to do
22 that. So like I said at the start of this
23 comment, we're certainly sensitive to the
24 suggestion that Mr. Martin made where I think

1 we're trying to deal with that in this method.

2 MS. GEVING: May I ask a follow-up
3 question. Mr. King, in the instance where the
4 parties come in and voluntary wish to address a
5 vapor intrusion pathway at this time, is there
6 some language that we are going to put in the NFR
7 letters that would address that they've looked at
8 the pathway?

9 MR. KING: Yes, we are putting in
10 language to that effect now.

11 MS. GEVING: Thank you.

12 MR. DAVIS: I have a follow-up as
13 well. One of the concerns is, regarding the, you
14 know, as is always the case when implementing a
15 rule that's not finalized, is the fact that it
16 changes over time. We've seen four errata sheets
17 now. What do you recommend those applicants shoot
18 for? If someone is performing indoor inhalation
19 originally age, for the original proposed values
20 contained in the tables that may be have
21 consequently changed, What would you recommend
22 then?

23 MR. KING: What we've always done,
24 and the principle place this is occurring is in

1 the context of our Site Remediation Program and
2 that has always been a program, where we work with
3 those who apply to do remediations to make sure
4 that, you know, we have meetings when they first
5 come into the program or even before they come
6 into the program, to outline what we see the
7 requirements are in existence, what requirements
8 are coming up, you know. So it's an interactive
9 process. It's the best we can do. I mean, other
10 than, if we don't do that, then the issue becomes
11 there is nothing -- there is nothing in the rule.
12 We wait for the 740 Rule to be opened. By that
13 time and go through that process, and by that time
14 it just wouldn't be pertinent. So we're trying to
15 proceed in an interactive way with people who get
16 into that program.

17 HEARING OFFICER MCGILL: Are these
18 instances where they are voluntarily addressing
19 indoor inhalation, is that only in a Tier 3
20 context or are they using the Agency's proposed
21 rules as a Tier 1 to look up answers?

22 MR. KING: If they don't at least
23 look at the table to see whether they are below
24 those numbers, they've made a very bad decision as

1 far as proceeding? Yes, they can use the tables
2 and look at those.

3 HEARING OFFICER MCGILL:

4 Historically, even before this proposal came in,
5 did the Agency take up indoor inhalation on a
6 given site and address it through Tier 3 or just
7 sort of site specific risk assessment?

8 MR. KING: Yes, we have.

9 MEMBER RAO: Dr. Hornshaw, I have a
10 question regarding the changes proposed in Errata
11 Sheet 3. I think about allowing for averaging of
12 soil samples under Tier 2. Earlier in the
13 proposal any type of averaging of soil samples or
14 soil vapors, I think it had to be done under the
15 approved panel of Tier 3. Now we are allowing of
16 averaging of soil samples under Tier 2. The
17 question is, does the proposal still allow
18 averaging of groundwater or soil vapors under Tier
19 3 or is that prohibited?

20 DR. HORNSHAW: They could do that
21 under a plan that we would approve it in advance.

22 MEMBER RAO: So even with the
23 language that's been stricken out in Errata
24 Sheet 3, it's still allowed under Tier 3, correct?

1 DR. HORNSHAW: Correct.

2 HEARING OFFICER MCGILL: Just to go
3 back to the NFR letter and the transition period
4 issues, just so I understand. Do you anticipate
5 that there will be instances in the future, as
6 much as you are trying to work with applicants,
7 where a Remedial Action Completion Report is going
8 to have been submitted, it's complete and
9 quote-unquote "acceptable," but the rule effective
10 date kicks in after that submittal is made and
11 before the NFR letter issues, if that happens, and
12 that Remedial Action Completion work does not
13 address indoor inhalation, are they not going to
14 be get an NFR letter?

15 MR. KING: They would have to go
16 back and address that pathway, which may mean
17 additional sampling work or maybe they just forgot
18 to look at the table or maybe their numbers are
19 consistent with the table. Maybe the data that
20 they already have they can rerun Tier 2 equations
21 and they would be fine. Or it may turn out they
22 have a significant problem that they need to do
23 additional clean-up work on.

24 HEARING OFFICER MCGILL: Thank you.

1 If you could identify yourself?

2 MR. ELLIOTT: Mark Elliott, MH
3 Environmental.

4 Mr. King, did you imply that you
5 cannot alter the size of the building under a Tier
6 2 evaluation, that that can only be conducted
7 under Tier 3?

8 MR. KING: That's correct.

9 MR. ELLIOTT: Why, I guess would be
10 the question? I mean, Tier 2, as I understand it,
11 is supposed to be -- the flexibility built into it
12 to use more site specific factors, and I would
13 think that building size would be one of the most
14 relevant factors as far as that's concerned. I
15 mean, the more things that get shoved into Tier 3,
16 which has been very difficult to get anything
17 through, let's be honest about it --

18 HEARING OFFICER MCGILL: Sir, I'm
19 going to have to ask you to pose the question or I
20 can go ahead and swear you in if you want this to
21 be considered testimony.

22 MR. ELLIOTT: That's fine. I guess
23 my question is why are we limiting the size of the
24 building under Tier 2 when flexibility is supposed

1 to be built into that?

2 MR. KING: Well, I thought I
3 explained our reason. You may not agree with our
4 reasoning, but that's the reasons we put forward
5 for doing it that way. We felt if you are going
6 to vary the building size, then you are truly
7 looking at a very site specific issue that's going
8 to effect the long-term status of the buildings at
9 that site long into the future. And let's do that
10 under Tier 3 so that we're truly evaluating all
11 the factors relative to that specific site.

12 MR. ELLIOTT: How is the fact that
13 the building size as evaluated under Tier 2 or
14 Tier 3 alter the fact that the NFR has to be
15 structured for the size of the building? I don't
16 understand how using it under Tier 2 versus Tier
17 3, the size makes it different as to how it has to
18 be dealt with?

19 MR. KING: Because we will condition
20 the NFR letter on the size of the building. And
21 if you are saying that you are getting an NFR
22 letter based on a building that is larger than
23 what has been included in part of our assumptions,
24 then you will not have, not be allowed to have a

1 smaller building on that site. That site will be
2 prohibited from having a smaller building, and
3 that will certainly effect the nature of how that
4 property can be transferred in the future. And it
5 will certainly effect the nature of the NFR
6 letter. That's why we want to do that under Tier
7 3, as opposed to Tier 2 or Tier 1.

8 MR. ELLIOTT: Again I, would
9 question how is that different than any other
10 alterations to a property when it transfers as far
11 as changing an NFR, i.e., moving a parking lot
12 engineering barrier or something like that, how is
13 that changed doing it under Tier 3 versus Tier 2?

14 MR. KING: Well, if you are talking
15 about an engineered barrier, if an engineered
16 barrier has been included under the existing
17 system, that's part of the remediation efforts,
18 and you are then changing the nature of the
19 remediation project.

20 MR. ELLIOTT: Again, I don't
21 understand the distinction. How is changing the
22 size of the building versus any other alteration
23 to the site that effects the NFR, I don't
24 understand the difference. I guess I'm a little

1 confused.

2 HEARING OFFICER MCGILL: Maybe, let
3 me try to ask the question. It will be helpful
4 background. What sort of site specific
5 information is taken into account at the Tier 2
6 level? What is site specific information, just
7 for background purposes, get some examples.

8 MR. KING: I would have to go
9 through -- I would have to go into the equations
10 then.

11 MR. KING: Part of the -- just to
12 give you a couple examples.

13 HEARING OFFICER MCGILL: What we're
14 going to do is just go off the record for five
15 minutes. The court reporter needs to take a
16 break. If you want to look that up. I've got
17 11:20. We'll start right back up in five minutes.

18 (Whereupon, a discussion was had
19 off the record.)

20 HEARING OFFICER MCGILL: Why don't
21 we go back on the record. We were just posed a
22 question to the Agency's witnesses about where
23 variability in building size can be taken into
24 account, Tier 2 or Tier 3. So why don't we pick

1 it up there, please.

2 MR. KING: Yes. As we're saying,
3 the building size parameters would be varied under
4 Tier 3. Under Tier 2, the parameters that are
5 being varied are basically what we described in
6 our testimony as the geotechnical parameters. I
7 believe that the examples I gave in my written
8 testimony were dry soil bulk density, soil total
9 porosity, water filled soil porosity and fraction
10 organic carbon content. Those would be examples
11 of geotechnical parameters that would be varied
12 within the Tier 2 equations, and that's similar to
13 the way we work Tier 2 under the existing program.

14 HEARING OFFICER MCGILL: The Johnson
15 and Ettinger model is part of Tier 2; is that
16 correct?

17 MR. KING: That's correct.

18 HEARING OFFICER MCGILL: And has an
19 input for building size that under the Agency's
20 proposal is fixed at the Tier 2 level?

21 MR. KING: That's correct. That was
22 our -- again, we made a policy judgment in
23 proposing this rule as the way we thought it would
24 work best. Obviously the Board in its

1 jurisdiction is free to take a different approach.
2 That was our policy thoughts and our reasoning for
3 doing it that way.

4 HEARING OFFICER MCGILL: Maybe if
5 you could elaborate on some of the policy
6 rationale. Is it administrative in nature, how to
7 process.

8 MR. KING: No, it's the whole issue
9 of what is the NFR, the NFR letter? How is it
10 going to be structured? Is it going to be
11 building sized dependent or not? Based on the way
12 we put the proposal together, the NFR letter
13 under -- if it's accomplished under Tier 1 or Tier
14 2 would not be building size dependent.

15 MR. ELLIOTT: I have a follow-up on
16 his comment.

17 HEARING OFFICER MCGILL: Did you
18 have anything else. Could you state your name
19 again.

20 MR. ELLIOTT: Mark Elliott MH
21 Environmental. You stated that geotechnical
22 property can be altered under Tier 2. Now, you
23 used for Tier 1 default value rules that were
24 previously used for surface soils under SSL and

1 Rebecca. Are you allowing any alteration in the
2 default values or is the Tier 2 meant to hold
3 strictly to the single member that's in there?
4 Like, for instance, can we utilize the default
5 values for subsurface clay, sands, that were
6 previously published in the SSL and Rebecca or is
7 the intent to strictly alter those on the basis of
8 testing?

9 MR. KING: It's the latter, it's
10 altered based on testing.

11 MR. ELLIOTT: So in other words,
12 those values, if you use default as the only to
13 determine value that was published, then the Tier
14 1 standard as the alteration must be dependent
15 upon sampling?

16 MR. KING: That's right.

17 MEMBER LIU: Mr. King, if a property
18 owner was willing to accept a building size
19 limitation in the NFR letter and wanted to proceed
20 with Tier 2, would that be a possibility?

21 MR. KING: Well, not the way we
22 proposed it. I mean, I think, that's certainly
23 the question being posed. We're concerned -- we
24 thought this would be a better approach from the

1 standpoint of our administering the rule and
2 making sure that certain things didn't get lost,
3 as far as the calculations under Tier 3. If they
4 are going to vary the building size, then they
5 have to account for other site specific things
6 that could be happening relative to the building,
7 relative to the advection principles that are
8 ignored under Tier 1 and Tier 2.

9 MEMBER LIU: Would they be able to
10 use Tier 3 for the indoor inhalation pathway and
11 Tier 1 for other types of pathways to combine
12 them?

13 MR. KING: Yes.

14 MR. ELLIOTT: One more quick
15 question along those lines. Is it the Agency's
16 intention to -- I mean, with all these factors
17 being pushed off into Tier 3, is it the Agency's
18 intention to streamline that process better than
19 it's been working in the past?

20 MR. KING: As far as we're
21 concerned, we have made many steps to streamline
22 our Tier 3 process over the last ten years, and we
23 have far newer sites going into, going into our
24 highest level of Tier 3 review then we used to.

1 From our standpoint it works -- it still works in
2 a pretty smooth fashion now.

3 HEARING OFFICER MCGILL: Any
4 additional questions for any of the Agency's
5 witnesses? Seeing none, I'd like to thank you all
6 for participation.

7 We're going to move on then with
8 the next witness. And with the indulgence of
9 Mr. Reott and Mr. Pokorny, and the GeoKinetics
10 witness, Mr. Martin who pre-filed testimony on
11 behalf of the Site Remediation Advisory Committee
12 just informed me during the last break, he has to
13 catch a flight and has to leave fairly soon. So
14 what I'm going to do is take up his testimony at
15 this time, which I believe will be fairly brief,
16 and then we'll get back in order. Why don't we go
17 off the record for a moment.

18 (Whereupon, a discussion was had
19 off the record.)

20 HEARING OFFICER MCGILL: Why don't
21 we go back on the record. If the court reporter
22 would, please, swear in Mr. Brian Martin.

23

24

1

BRIAN MARTIN

2

having been first duly sworn, was examined and

3

testified as follows:

4

HEARING OFFICER MCGILL: Mr. Martin,

5

if you care to, you can certainly provide a

6

summary of your pre-filed testimony at this time.

7

MR. MARTIN: Thank you. I would

8

just like to briefly mention, that as stated in my

9

pre-filed testimony, that the Site Remediation

10

Advisory Committee supports the Agency's proposal

11

with respect to soil averaging for the indoor

12

inhalation pathway. And we appreciate the

13

Agency's willingness to work with us on that

14

issue. My comments with respect to the

15

implementation concerns have already been

16

addressed and discussed to some extent. I'd like

17

to reiterate that SRAC is concerned that in some

18

respects the rule is being implemented before it's

19

final, and we see that some implementation

20

concerns with respect this becoming effective with

21

people having gone through the process and we

22

appreciate the Board's consideration of that

23

issue. That concludes my testimony. I would be

24

glad to answer questions.

1 HEARING OFFICER MCGILL: Thank you.

2 Do you know if SRAC is considering filing any
3 proposed rule language on its transitional
4 concerns on NFR letters?

5 MR. MARTIN: I'm not aware of any
6 proposal beyond what we suggested in my testimony,
7 but we'd certainly be willing to talk to the
8 Agency at a future date about that.

9 MEMBER GIRARD: Could I ask a
10 question. Is SRAC concerned about the building
11 size parameter being only a consideration in the
12 Tier 3 clean-up?

13 MR. MARTIN: No we've had
14 discussions on that issue, and we generally feel
15 that the Agency's approach is appropriate because
16 we believe that will result in an unrestricted NFR
17 when you use the default assumptions. We wouldn't
18 want to see a case where NFR's become limiting to
19 certain building size.

20 HEARING OFFICER MCGILL: All right.
21 Any additional questions for Mr. Martin? Seeing
22 none, I'm just going to take care of a little
23 paperwork.

24 I mentioned that the pre-filed

1 testimony deadline was February 24. Mr. Martin's
2 pre-filed testimony on behalf of the Site
3 Remediation Advisory Committee was filed on
4 March 5th. Is there any objection to entering as
5 if read the pre-filed testimony of Brian Martin?
6 Seeing none, that is so entered.

7 And is there any objection to
8 designating as a hearing exhibit the pre-filed
9 testimony of Mr. Martin? Seeing none, that will
10 be Hearing Exhibit No. 24. Thank you.

11 At this point I'd like to proceed
12 with Mr. Raymond Reott. Mr. Reott, if you could
13 walk up, wherever you are most comfort talking.
14 If you want to sit at the first --

15 (Whereupon, a discussion was had
16 off the record.)

17 HEARING OFFICER MCGILL: Back on the
18 record. Before we proceed with Mr. Reott, we did
19 have one additional follow-up question for
20 Mr. Martin who is still under oath.

21 MEMBER JOHNSON: And just briefly,
22 it's been asked before, but I wanted to get your
23 take on it and our Committee's take. Have you
24 discussed or do you have a problem with the, or

1 potential problem any way, that we had discussed
2 involving a Remedial Action Completion Report
3 having been filed and then the rule going in
4 effect prior to an NFR letter issuing? Has your
5 committee discussed that?

6 MR. MARTIN: Yes, we have. And as
7 described in our testimony, our concern is that a
8 person who follows the existing rules and follows
9 the process in good faith, recognizing the draft
10 indoor inhalation rule is out there, but not final
11 yet, maybe be subject to some change, but that
12 person goes through meeting all the existing
13 requirements and doing everything appropriately,
14 goes all the way through to his remedial action
15 completion report, which is the final step in the
16 process before the NFR letter, within the -- if
17 this rule then becomes effective before that NFR
18 letter is issued, he is stuck with reopening that
19 his project, and it doesn't seem reasonable to us
20 when he's followed everything according to the
21 rules that are in place at the time the work was
22 done.

23 HEARING OFFICER MCGILL: Sorry,
24 another follow-up.

1 MEMBER RAO: Mr. Martin, in this
2 situation that you described, if remedial
3 applicant receives an NFR letter, do you expect
4 the NFR letter to be qualified that the site was
5 not in compliance with the vapor intrusion or just
6 a general NFR letter that you received?

7 MR. MARTIN: We haven't put a great
8 deal of thought into that, but we certainly
9 understand that if a rule is effective after the
10 completion report is done, if the Agency will most
11 likely put some sort of condition on the NFR
12 letter, just as they are doing now if you happen
13 to meet the indoor inhalation requirements before
14 the rule is final, they add it to your NFR letter,
15 we realize they may do something supplemental in
16 the other case where there's a new requirement
17 that has not been met.

18 MEMBER RAO: And you are okay with
19 that?

20 MR. MARTIN: I don't think we have a
21 choice. It's certainly understandable that they
22 would take that position.

23 MEMBER RAO: Thank you.

24 HEARING OFFICER MCGILL: The Agency

1 witnesses are also still under oath. Let me ask a
2 question. I thought what I was hearing earlier
3 from Mr. King was that actually in that scenario
4 that an NFR letter would not issue. Is that the
5 case or would an NFR -- let me just describe the
6 situation. Remedial Action Completion Report is
7 submitted, it does not address indoor inhalation,
8 it's otherwise complete and acceptable under the
9 then current rules, then our indoor inhalation
10 rules goes into effect and then the NFR letter is
11 going to issue. Would the fact that they did not
12 address indoor inhalation mean that the NFR letter
13 will not issue or it will issue with the caveat
14 that they have they are not addressing a portion
15 of the current rules?

16 MR. KING: We would not issue the
17 NFR letter in that situation. However, you know,
18 we do have people that -- I mean, if there are
19 specific issues that require something to be moved
20 along quickly, there's legitimate reasons to do
21 that. I mean, we've done that in the past to help
22 people out.

23 MEMBER MOORE: To rush the NFR out
24 before the rules have become effective though.

1 HEARING OFFICER MCGILL: I guess
2 what I'm wondering is once these rules are in
3 effect, and then you are about to issue an NFR
4 letter and everything that an NFR letter signifies
5 under the law, are you going to, in this
6 hypothetical we're discussing, decline to the
7 issue the NFR because indoor inhalation has not
8 been addressed or are you going to issue an NFR
9 caveat that the --

10 MR. KING: We were anticipating not
11 issuing the NFR letter.

12 MS. GEVING: Do you mean, Mr. King,
13 until they address the pathway, indoor inhalation
14 pathway?

15 MR. KING: That's correct.

16 HEARING OFFICER MCGILL: All right.
17 Thank you.

18 MR. KING: Again, if the Board
19 was -- as I was noting with respect to the other
20 points, we have made a policy judgment in our
21 proposal. If the Board concludes that, you know,
22 we could do it, we could issue the NFR letter but
23 say that pathway has not been addressed, I mean,
24 that, I mean the Board could write the rule in a

1 way that says that I suppose. We had anticipated
2 that if the rule becomes effective, that pathway
3 would need to be addressed before the NFR letter
4 was issued.

5 MEMBER GIRARD: Mr. King, how long
6 does it typically take you to review as you know
7 Remedial Action Completion Report?

8 MR. KING: Again, if there's not a
9 workload issue, which there is a workload issue
10 right now, it's not that the process of reviewing
11 it and then issuing the NFR letter takes very
12 long, it's just we've got a lot of projects that
13 we're working on right now. Probably from the
14 time that the report would come in to the issuance
15 of the NFR letter, if there was no delay based on
16 workload, a workload situation would be a couple
17 weeks.

18 MEMBER GIRARD: Thank you.

19 HEARING OFFICER MCGILL: Mr. King,
20 do you recall under the LUST program or SRP
21 whether there is a actually a mandatory time
22 deadline for the Agency to issue an NFR letter
23 once they received a complete Remedial Action
24 Completion Report?

1 MR. KING: We're just conferring.
2 There is a deadline for reviewing the final
3 report, which for the SRP program is 60 days. For
4 the tank program, it's 120 days. Now, we're
5 typically not bumping up against those kind of
6 time frames.

7 HEARING OFFICER MCGILL: Certainly
8 one of the responses might be just denial of the
9 NFR because of deficiencies the Agency believes
10 are in the Remedial Action Completion Report?

11 MR. KING: Right.

12 HEARING OFFICER MCGILL: Thank you.
13 Any follow-up questions?

14 MEMBER MOORE: Just one more. The
15 time frame, if you are near the end and your
16 completion report is finished, your NFR letter is
17 due, but the rules go into place, how long will it
18 take in the set, the last process, to address the
19 inhalation, in addition to the time they've had?
20 Will they have to reopen?

21 MR. KING: Well, they would have
22 to -- they'd have to submit potentially another
23 site investigation plan and another remedial
24 objectives report, and another and then another

1 Remedial Action Completion Report. So there would
2 be some additional steps that would have to occur.

3 MEMBER MOORE: So do we have a
4 guesstimate. Is that another six months to a
5 year?

6 MR. KING: You know, a lot of times
7 these kind of issues are not so much controlled by
8 the Agency in review, but it's how quickly the
9 remediation applicant can then go ahead and
10 address those issues. To tell you the truth, if
11 this was an important situation, it would get
12 addressed very quickly because the consulting
13 firms would be tasked to address it very quickly.

14 MEMBER MOORE: Thank you.

15 HEARING OFFICER MCGILL: Any
16 additional questions for the Agency's witnesses or
17 Mr. Martin? Seeing none, we'll move on with
18 Mr. Reott. Thank you for your patience, sir.

19 At this point, will the court
20 reporter swear in Mr. Reott.

21 RAYMOND T. REOTT
22 having been first duly sworn, was examined and
23 testified as follows:

24 MR. REOTT: Thank you. Mr. McGill,

1 we spoke beforehand, and I would like to get my
2 testimony marked as an exhibit and also that
3 additional exhibit marked so we can make the
4 record clear before we begin.

5 HEARING OFFICER MCGILL: Yes.

6 Mr. Reott's pre-filed testimony on February 24,
7 that was timely, and there are several attachments
8 to that pre-filed testimony. Initially, let me
9 just ask, is there any objection to entering as if
10 read the pre-filed testimony of Raymond Reott?
11 Seeing none, that is so entered.

12 Second, is there any objection
13 to designating a Hearing Exhibit the pre-filed
14 testimony of Mr. Reott along with the attachments
15 that were included with his pre-filed testimony?
16 Seeing none, that will be Hearing Exhibit 25. And
17 then among the attachments to this pre-filed
18 testimony, Mr. Reott wanted to separately refer to
19 one of those attachments or we're going to mark it
20 as Hearing Exhibit 26, as a table entitled
21 "Comparison of existing and proposed TACO
22 standards, February 19, 2009. For Residential
23 Property in communities within approved
24 groundwater use Institutional Control Ordinance."

1 Is there any objection to designating that as a
2 hearing exhibit? Seeing none, that will be
3 Hearing Exhibit 26. Mr. Reott, if you'd like to
4 proceed.

5 MR. REOTT: Thank you. I provided
6 that one exhibit just because later on I'm going
7 to use it to illustrate some points, and it would
8 be easier than having it attached in trying to
9 make a clear transcript.

10 I won't repeat my background.
11 I've been an environmental lawyer here in Illinois
12 for a long time. I'm not a technically trained
13 person in the sense that I don't have college or
14 advanced degrees in geology or hydrogeology or
15 those fields, although I have a working knowledge
16 in most of those fields, but approach it from a
17 somewhat different perspective as a lawyer. And I
18 was an active participant in the original TACO
19 rulemaking '94 when the Board took the very wise
20 step of rejecting the Agency's initial proposal,
21 which in turn caused the Agency to go back and
22 really rethink what it was doing and come up with
23 what was at that time the national standard for
24 this type of program. And since that time it's

1 been administered in a way that's been exemplary
2 by the Agency personnel. I can't speak highly
3 enough about that process because my practice is
4 very national, and I know from the numerous
5 contacts I have with the other state agencies, it
6 doesn't always work that well. That foundation
7 was laid by the Board in '94 when it chose to make
8 the Agency go back and try again. I think that's
9 really what needs to happen here. I won't try to
10 go through all of my testimony, but I want
11 illustrate a few things that have come up in the
12 questioning of the witnesses and the answers to
13 the pre-filed questions and sort of highlight
14 those in terms of how they effect the already
15 pre-submitted testimony, which is Exhibit 25.

16 In Illinois our clean-up
17 standard is supposed to be based on actual risks
18 to human health, that's what the general assembly
19 has told us. And TACO does that. It has a fairly
20 conservative set of Tier 1 values and processes to
21 go through Tier 2 or Tier 3. One of the reasons
22 that it has worked so well, and one of the reasons
23 that Tier 3 is so uncommon, as the Agency has
24 pointed out, is that it can generally be

1 administered without a lot of oversight. For
2 every site that's in a state program, there's
3 probably ten sites that are not in a state program
4 that are using TACO. They are using TACO to reach
5 decisions wholly or apart whether they need to get
6 it parlor. So the Agency's participation here is
7 really the tip of the iceberg in terms of number
8 of people effected by what happens to this
9 rulemaking. That's a good thing because it
10 conserves Agency resources at a time when they are
11 stretched very thin for the sites that are most
12 critical. It allows the majority of the sites,
13 the vast majority of the sites to process through
14 the problems in real estate transactions in all
15 sorts of settings without having to resort to Tier
16 2 or Tier 3 kind of analysis with the Agency's
17 participation. The proposal here I believe would
18 change that significantly. The reason it would do
19 that is because after, you know, more than ten
20 years of experience with a very successful
21 program, the Agency's proposal would change the
22 clean-up standard tenfold in most of Illinois.
23 That is a serious, serious change, and that's the
24 point of the separate chart, Exhibit 26, which I

1 think Mr. McGill has passed out and you have
2 before you.

3 What I did in Exhibit 26 was I
4 picked some of the most common chemicals out of
5 the 69 chemicals that are subject this rulemaking.
6 Grouped them by topics. So that the first group
7 are those most commonly involved in U.S.
8 T-clean-ups. The middle group is most commonly
9 involved when you have chlorinated solvent
10 problems, typical industrial facilities, and the
11 last couple were ones that were interesting
12 outliers that are involved in lots of different
13 types of problems. Most of Illinois has a
14 groundwater ordinance at this point. If you look
15 at the population in Illinois, you look at the
16 number of communities that have approved
17 groundwater ordinances, most of Illinois has
18 chosen to adopt groundwater ordinances. That has
19 in turn meant that the groundwater clean up
20 objectives and the migration to groundwater
21 pathway have become much less important in terms
22 of driving actual commercial activity in people's
23 decisions. Particularly the City of Chicago is a
24 great example where, you know, those issues really

1 are quite secondary in a lot of other context
2 where otherwise people would be forced to spend a
3 great deal of money on it. That's particularly
4 important in the groundwater context because
5 cleaning up soil is sort of one level of
6 experience. Cleaning up groundwater is totally
7 different in orders of magnitude kind of problem.
8 The Agency's change would drive people into
9 cleaning up groundwater in much of Illinois, and
10 would force them to address issues because of the
11 tenfold change in clean-up standards that would be
12 otherwise not dealt with in the current scenarios
13 that are out there. This will effect people who
14 have done their clean-ups years ago. The next
15 time they go to sell their buildings, they will be
16 forced to reopen. It will effect everybody who
17 has anything in process certainly. It will effect
18 anybody that has anything that's contemplated.
19 The Agency's proposal has the flexibility to go
20 through Tier 2 and Tier 3 analysis, but those are
21 not without costs. And having a bad Tier 1 table,
22 it's probably worse than having no table at all in
23 some ways because it would drive everybody into
24 Tier 2 and Tier 3 at a time when frankly your

1 turn-around time for the Agency are going to get
2 longer, not shorter, at least in the year term.

3 If you looked at Exhibit 26,
4 just a couple of examples, Benzene, the Agency's
5 proposal is more than a factor of ten more
6 stringent. Again, if you look at the outdoor
7 inhalation number, which would be the current
8 number that drives it in most of Illinois, it
9 would be, the pathway would be the most restrictive
10 number, 8-milligrams per kilogram. And now we are
11 adding, moving the decimal point over to .069 for
12 soils. Ethylene, Benzene is not quite as severe.
13 The coordinated solvents move by more than factors
14 of ten. For industrial sites, U.S. T-sites, this
15 proposal will cost a great deal of money. That
16 may still be appropriate, if the Board is
17 convinced that it really is the right thing to do.
18 But what we heard is, virtually no evidence that
19 this is a serious problem in Illinois where we
20 have correlated data that takes the model that's
21 been proposed, and actual Illinois experience. We
22 know from looking at some of the studies that I
23 quoted in my testimony that were added to the
24 record today, that when you look nationally at it,

1 there's a lot of criticism of the model that's
2 being used here because it has a series of overly
3 conservative assumptions that have synergistic
4 effects. When you start with the Board years ago
5 setting groundwater standards, which have certain
6 conservative aspects to them and they are
7 appropriate, but each time those standards are
8 used to derive yet another sort of exposure,
9 right, we add more and more conservative values in
10 this rulemaking. The Agency has proposed many
11 that, because of their synergistic effects, are
12 recognized nationally already in the John and
13 Ettinger model that cause problems. It's why
14 people in real world site sampling indoor air
15 quality, it does not match what is predicted by
16 the John Ettinger's model. A signal to the Board
17 that the Tier 1 values that are proposed here are
18 overly conservative. This is supposed to be the
19 economic hearing for this rulemaking. We've heard
20 nothing about the economic effects of this. I
21 submit to you they will be profound, and they will
22 be distributed across a really wide population.
23 So you may not get anybody in here screaming about
24 it because it won't hit any particular person that

1 deeply, but the cumulative effect will be
2 significant. It's very hard to measure. The
3 Board has heard nothing about that. It's going to
4 be there and it's going to be significant.

5 In response to questions this
6 morning, you know, and in the other testimony
7 that's been submitted, GeoKinetics agrees in its
8 experience with what I've observed about the
9 synergistic effects of the model, it's overly
10 conservative nature. They don't find real world
11 data to duplicate what the real world predicts.
12 Gary King's answer was kind of interesting this
13 morning when he said this is best out there. If
14 it doesn't work, it doesn't matter if it's the
15 best that's out there. It shouldn't be adopted as
16 the law in Illinois. That's the Board's choice
17 ultimately. It may be proceeding from this
18 rulemaking premature at this time. There also is
19 the issues, some of which were addressed by
20 questions from the technical staff, about the
21 application of this model in the U.S. T-context.
22 I share the Agency's concern that we don't want to
23 divide TOC into parts that apply to one regulatory
24 problem and not to another, but the real issue

1 about why the U.S. EPA doesn't apply very well and
2 doesn't apply in the use is because it doesn't
3 work actually in the U.S. T context because those
4 phenomenon of attenuation of absorption or
5 biodegradation are real world phenomenons. If a
6 model doesn't reflect them, the issue isn't we
7 shouldn't do it, the U.S. models with this model,
8 maybe we shouldn't conform any problem with this
9 model, that's ultimately going to be Board's
10 decision, but the fact that the U.S. EPA doesn't
11 want to apply it to U.S. T-sites is a signal to
12 the Board of how the model does not incorporate
13 real world actual phenomenon that do effect the
14 clean-up standards and would call into question
15 the use of the model here in Illinois,
16 particularly the U.S. T context where the state is
17 18 months behind in making payments.

18 I submit to you that's not going
19 to improve any time soon. We are talking about
20 spending tax dollars on the U.S. clean up. To
21 chase imaginary inhalation problems that are too
22 strict and those are real tax dollars that are
23 going to be spent at a time when, frankly, those
24 dollars should be allocated to the U.S. T-sites

1 that have more serious and real problems, not
2 spending another dollar investigating sites where
3 we are paying consultants to do work and we are
4 paying laboratories to do analyses, and those
5 industries are very constricted about the proposal
6 because we have, frankly, a financial interest in
7 it passing its current form. It will make work
8 for them, and you know, I've had many people who
9 have called and commented to me about my testimony
10 the last two weeks. I've had many people call and
11 say, look, can we get this thing sped up because
12 it's money and work and jobs for them. You know,
13 the issue though is, you know, you are talking
14 about impacting a program where the model is not
15 even designed to work in using tax dollars to pay
16 for that, for what I would submit is a mistake.
17 How could you improve the model even if you
18 decided to proceed, you wanted to take the
19 existing model, how could you improve it? First
20 and foremost, look at the answers that the Agency
21 provided to my questions. The model is
22 particularly sensitive to water filled soil
23 porosity fraction organic carbons, and those two
24 parameters. If you simply picked more

1 representative numbers for Illinois, you would
2 have a significant impact to the model that would
3 generate. The Agency has told you as much. It
4 hasn't been provided with what those would look
5 like. That would be an interest request from the
6 Board. What does Tier 1 look like if you start to
7 play with these numbers somewhat? And you get
8 more realistic, you get more representative
9 numbers for Illinois soils.

10 For example, in the current TACO
11 rule, the assumption, the default assumption which
12 is very conservative by itself, is that the top
13 three feet of soil, has three times the fraction
14 anal organic content as to what the Agency's is
15 proposal today. So we already have in place a
16 very conservative assumption. It's three times
17 less conservative than what the Agency is
18 proposing in the rulemaking for assumed default
19 value for carbon content, which is one of the most
20 sensitive parameters in the model. We have in
21 this state, state soil scientists. We have
22 extensive research. We have a state soil which is
23 the most common soil in Illinois. And those
24 soils, the most common soil in Illinois, does not

1 look anything the default changes. The default
2 uses sand and may be appropriate in New Jersey,
3 which is one of the leaders in this rulemaking,
4 where frankly the geology is pretty much sand, but
5 I submit to you that it is an unusual geology in
6 Illinois. Very unusual geology in Illinois. If
7 you look at the state soil maps, you just don't
8 find a lot it was compared to what you see in the
9 rest of Illinois. We have high carbon soils, and
10 it's one of the reasons why we don't have quite
11 the extent of contamination problems that the
12 places like New Jersey have. There's other issues
13 in terms of we all intuitively know that the depth
14 of contamination makes a difference. If the
15 contamination is 50 feet down, it makes a
16 difference, as opposed to in terms of eight feet
17 down, in terms of impact to the model occupants.
18 The model assumes no difference whatsoever. It
19 assumes if it's 50 feet down, it has the same
20 likelihood as if it's ten feet. That's in fact
21 contrary to what the Board did in the '97
22 rulemaking in the outdoor inhalation. The Board
23 took soils that were below the ten-foot mark and
24 treated them differently because it knew based

1 upon the analysis that was done at that time that
2 soils below ten feet were not as likely to have an
3 impact on someone standing on the surface. The
4 same analysis should be applied here, and instead
5 of going in the other direction to revise the
6 outdoor rules to drop the ten-foot barrier, you
7 know, the Agency should be looking in this
8 direction and doing something here that's
9 consistent with what we've done historically and
10 what the Board has adopted historically for
11 outdoor inhalation.

12 Just to comment on the exchange
13 between Mr. Martin and Mr. King about Tier 2 in
14 building size restrictions, why not simply give
15 the building owner a choice. If he wants his NFR
16 letter to be considered in a Tier 2 analysis on
17 the size of the building, why not let him? I
18 mean, in a long development context you are going
19 to develop every square foot of the property that
20 you can. You are, if you are green field site,
21 you are building a new building, you are going to
22 build it out to whatever the lot lines are or the
23 setback zone, if there's setback zone. If that's
24 what the building owner wants, why not give them

1 that flexibility. It doesn't seem that difficult
2 to administer.

3 In terms of how to establish
4 compliance, one of the issues in the current rule
5 is it really does not give you an opportunity to
6 use indoor air testing effectively to measure
7 compliance. I agree very much with the testimony
8 submitted by GeoKinetics. I think that indoor air
9 testing, if done in a representative way, is less
10 intrusive, acts as less of an issue frankly where
11 it is doing invasive, where you have drilling
12 issues and utilities and pipes and things you
13 might hit below the surface. It's much easier to
14 put a Summa canister into a building, take a
15 measurement. I think the ultimate effect of the
16 rule could be adverse on building energy
17 conservation programs because we will encourage
18 people to recreate systems, create flow through
19 buildings in order to address perceived but not
20 real indoor air problems instead. They are going
21 to be pumping air through their building as part
22 of the building control technology in the way that
23 is going to cost them on the energy side. You
24 know, in short, I guess I think we're being asked

1 to look at a proposal to solve a problem that may
2 or may not exist in Illinois. There really is --
3 if there was such a severe problem that it
4 justified a tenfold decrease in the soil clean-up
5 standard, we would see many, many, many indoor
6 inhalation in the city. I just don't see it. I
7 don't see it in my legal practice. I don't see it
8 in the sites that are evaluating transactional
9 context. I don't see it in litigation. I don't
10 see it. It doesn't mean it can't happen. It
11 doesn't mean there aren't serious indoor
12 inhalation problems, like Hartford, Illinois, but
13 frankly those sites are capably being approached
14 and addressed by existing standards. They don't
15 need this rulemaking to address them. This
16 rulemaking, I think, has the potential to
17 undermine a lot of good. For that reason, I urge
18 the Board to proceed very cautiously with the
19 Agency's proposal. Thank you.

20 HEARING OFFICER MCGILL: Thank you.
21 The Board has some questions for Mr. Reott but
22 we'd like to open it up to the audience first.
23 Does anyone have any questions for Mr. Reott? Mr.
24 King?

1 MR. KING: I don't have any
2 questions, but I would like the opportunity to
3 comment on some of the statements.

4 HEARING OFFICER MCGILL: Sure. You
5 are still underneath oath. Go ahead.

6 MR. KING: I mean, what I see
7 Mr. Reott doing is really proposing that the State
8 of Illinois not proceed to have a vapor intrusion
9 approach because it's going to be based on a J&E
10 model, because that's what U.S. EPA has used.
11 That's what every other state that has developed
12 something has used. If we don't have -- if we do
13 not a set of Tier 1 numbers right now, we're one
14 of the very few states in the country that does
15 not have some kind of Tier 1 methodology out
16 there. One of the very few. We've resisted doing
17 that -- this has been -- the vapor intrusion issue
18 has been an issue out there since 1997, when
19 Rebecca was first adopted, and included provisions
20 for indoor inhalation in there. We rejected going
21 forward with indoor inhalation at that point
22 because we felt it was just too new. There wasn't
23 enough information out there. We waited ten years
24 to begin a process so that we could see what had

1 transpired on a federal level, what other states
2 were doing. I don't know any major industrial
3 state that doesn't have some kind of screening
4 levels based on the J&E model. What we've done in
5 applying the model, Mr. Reott complains about the
6 numbers being conservative, but the numbers that
7 we have are much more liberal than what other
8 states are proposing, much more liberal, and
9 there's a couple reasons for that. One is that as
10 you recall from the first hearing, Dr. Salhotra
11 talked about diffusion as a mechanism for
12 contaminants to move from soil and groundwater
13 upward, and he also talked about advection as
14 being another force that would -- that happens
15 when building. EPA in other states use both
16 advection and diffusion to create their equivalent
17 of a Tier 1 Table. We only used diffusion. As a
18 rule, our numbers are considerably higher than
19 what other states are. We've had exchanges with
20 other states, and they are very surprised at how
21 high our numbers are. We think the numbers are
22 appropriate because we don't think that this
23 advection component is appropriate to go into a
24 Tier 1 Table. I'll give you a couple of examples

1 of information we've gotten from other states.

2 For instance, on Benzene, this
3 is on the soil gas concentrations, which is part
4 of our table, our residential number is
5 41,000 micrograms per cubic meter,
6 41,000 micrograms per cubic meter. For instance,
7 New Jersey, the number is 16. In Minnesota --

8 HEARING OFFICER MCGILL: I'm sorry,
9 is that 16?

10 MR. KING: 16. Minnesota 45.
11 Michigan uses at five-foot bulk rate, they use
12 1500. Indiana uses 250. You know, so those
13 numbers are -- you know, in Michigan, Minnesota,
14 Indiana, they are pretty close. Soil isn't going
15 to be that much different. They have numbers that
16 are way more conservative than what we have
17 proposed. We think that the numbers that we have
18 make sense because we're not -- we're trying to
19 address the situations where it's going to be the
20 most prevalent problem, so we don't have that
21 advection component.

22 The other thing that we've done
23 differently, other states and EPA, they use a
24 single attenuation factor that's applicable across

1 all the contaminants. We went a step further than
2 that and developed attenuation factors that are
3 specific to each chemical. So, again, we think
4 that's a more scientific approach than having one
5 generic attenuation factor. It's one of the
6 reasons why EPA's application of the J&E model has
7 been criticized, because they use the single
8 attenuation factor. We're not doing that. We use
9 the Tier 1 geotechnical parameters that we used.
10 We used those because we believed and believe that
11 they are consistent with the existing TACO rule.
12 As we talked before, under Tier 2 those
13 geotechnical parameters can be varied based on
14 site specific testing of soil conditions. We do
15 allow for indoor air sampling under Tier 3. We
16 wanted to make sure because of the fact that when
17 you are going to have an intrusive going into
18 somebody's residence, for instance, to sample the
19 air in that residence, we want to make sure that
20 that is done properly, so we don't have either
21 false positives or false negatives, so we've
22 included that as a Tier 3 potential.

23 HEARING OFFICER MCGILL: Could I
24 just interrupt you for one moment and ask you a

1 question about that.

2 In terms of other states, are
3 you aware of any that have, what would be
4 comparable to a Tier 1 level for indoor air?

5 MR. KING: Yes, there are some
6 states that do that. They do a Tier 1 level.

7 HEARING OFFICER MCGILL: Do you know
8 how they, can that be used to exclude the pathway
9 or is that part of the information that's
10 developed?

11 MR. KING: No, they can be used to
12 exclude the pathway. Maybe I'm going to get some
13 other information right here. We were just
14 conferring in talking about the fact that indoor
15 air is normally looked at as a last step after
16 everything else has been characterized because of
17 the fact it can be intrusive and you want to
18 exhaust the other options first.

19 HEARING OFFICER MCGILL: I'm sorry,
20 you are talking about other state programs or the
21 Agency's approach?

22 MR. KING: Other states.

23 HEARING OFFICER MCGILL: It would be
24 helpful, obviously we are doing some of our own

1 research, but it would be helpful to hear from the
2 Agency if you've done this leg work to hear on
3 some of the hot button issues we have so far to
4 hear what other states, how they approach it and
5 why you think your proposal is better, whether
6 that's public comment or not, we'll figure that
7 out.

8 MR. KING: Mr. Reott was commenting
9 about like the energy issues relative to a
10 depressurization system, we are talking about a
11 small fan for a home. The ENM cost for operating
12 a small fan on one of these systems is minimal,
13 and if you compare the cost for a building control
14 technology against the cost of addressing a
15 potential serious illness for residents of a home,
16 I think it's quite inexpensive. So I don't
17 understand the notion that BCT's are going to be
18 too expensive. We've already seen. I mean,
19 one of the reasons why we're starting to see
20 people inquire about indoor inhalation relative to
21 property transactions in Illinois is that there --
22 if they are in a multi-state kind of context, they
23 are used to dealing -- they understand they have
24 to deal with indoor inhalation in other states and

1 so are looking for guidance in how to deal with
2 them in Illinois. The ASTM standard practice
3 document -- again, that's one of our submittals --
4 in talking about how practitioners are to evaluate
5 the indoor inhalation pathway, they instruct
6 practitioners to look to their state environmental
7 Agency for procedures. So we think it's
8 imperative that practitioners are going to have
9 something to look at, and whether or not the Board
10 adopts the Agency's proposal, property
11 transactions are going to look for, are going to
12 look for some methodology to address indoor
13 inhalation. You know, we think the methodology
14 that we have has, builds on TACO as we've
15 implemented it for the last decade, and will be an
16 effective approach to dealing with this pathway
17 for the future.

18 MEMBER RAO: Mr. King, in the
19 context of what you just said, for real estate
20 transactions or for practitioners, the ASTM
21 standards have to contact the U.S. EPA, have to
22 get more guidance on the issue, the state in the
23 proposal that we have before us, it doesn't have
24 indoor air cleaning levels at Tier 1. So do you

1 think it could be beneficial for these kinds of
2 transactions to have indoor air screening levels?

3 MR. KING: We were concerned -- the
4 thing we were concerned about in putting the Tier
5 1 Table for indoor air was because of the
6 complexity of doing that sampling. Yes, you could
7 just put a Summa cannister in somebody's house.
8 That's pretty simple. And you can get, you can
9 collect the sample, and then you can have it
10 analyzed, and yes, that's going to show some
11 information. But is that truly representative of
12 what is coming from, you know, beneath the
13 foundation of the building or not? I mean, you
14 can have false negatives and you can have false
15 positives. Unless the study is properly designed
16 to just have that kind of table, we just didn't
17 think that was an appropriate way to go because of
18 those issues.

19 MEMBER RAO: Are you aware of how
20 some of these other states you mentioned deal with
21 this issue where they have this indoor air
22 screening levels?

23 MR. KING: Tracey, you want to
24 comment on that? What was the question?

1 MEMBER RAO: The question is, if you
2 are aware of how some of these other states which
3 have indoor air screening levels as part of their
4 clean-up levels, or I don't know how they do it,
5 whether it's in the tier remediation approach or
6 how do they implement those screening levels?

7 MS. HURLEY: Most of what the other
8 states were doing do rely or allow for the indoor
9 air sampling they have for their indoor extensive
10 observations to be done as part of the sampling
11 approach. The protocol, one of the difficulties,
12 and Dr. Salhotra addressed this at this last
13 hearing, was how do you account for the possible
14 bias from just ordinary modern life if there are
15 smokers, for example, in the home or in the
16 business, how do you account for contaminants
17 present as a result of the smoking or how do you
18 account for dry cleaning? How do you account for
19 the use of household cleaning products? So trying
20 to rule those things out or evaluate those, the
21 mixture of contaminants, would be impossible, I
22 think, it would be difficult, and there are a
23 number of assumptions that would have to go into
24 setting that up and making a comparison so that,

1 you know, what you are measuring is actually a
2 result of an external source as opposed to an
3 internal source.

4 HEARING OFFICER MCGILL: Well, if we
5 were just to assume that the indoor air samples
6 are representative, just for purposes of the
7 question, are other states at that point saying,
8 you met the screening level, you exclude the
9 pathway, or are they saying this is one piece of
10 information we'd like, but you still have to do
11 all the subsurface testing?

12 MS. HURLEY: It's one piece.

13 : It's one piece they would still
14 have to do the site investigation to characterize
15 the groundwater contamination?

16 HEARING OFFICER MCGILL: So they'd
17 still be collecting that data and presumably using
18 the J&E model to perform those calculations?

19 MR. KING: In the equations that we
20 provide now in Appendix C, Table L, equations J&E
21 1 and (E)(2) allow for one to calculate those
22 remedial indoor objectives. Now, we just don't
23 have a table, but the values could be calculated
24 for either carcinogenic or noncarcinogenics.

1 HEARING OFFICER MCGILL: You are
2 talking about calculating?

3 MR. KING: A remediation objective.

4 MEMBER MOORE: Is that only for Tier
5 3?

6 MR. KING: It would be for Tier 3.

7 HEARING OFFICER MCGILL: That would
8 be Tier 3.

9 MS. GEVING: I think Dr. Salhotra
10 would like to make additional comments, perhaps
11 not in capacity of the Agency, but on behalf of
12 his own business as a consultant.

13 MR. SALHOTRA: Is that appropriate?

14 HEARING OFFICER MCGILL: Sure with
15 that understanding, go ahead.

16 Maybe you could restate your name
17 and your company.

18 MR. SALHOTRA: My name is Atul
19 Salhotra. I'm vice president of Ram Group, which
20 is a division of Gannett Fleming, Inc. I'm going
21 to make several comments.

22 HEARING OFFICER MCGILL: I'm sorry
23 to interrupt. You have been sworn in earlier. I
24 wanted to, for the record, note that.

1 MR. SALHOTRA: I think, first of
2 all, indoor measuring -- measuring indoor air
3 samples is significantly more intrusive than
4 measuring samples outside of the building, below
5 the building or adjacent to the building. That's
6 my experience based on many sites across the
7 country.

8 The second thing is as has been
9 mentioned before, the chemicals that we are
10 dealing with as contaminants are also chemicals
11 that we routinely use or generate in our homes.
12 So once you measure, go inside a house and
13 measure -- or a business and measure --
14 concentrations inside the house, there is no way
15 to tell where those chemicals are coming from.
16 And so as a decision making tool, indoor air
17 measurements is a very problematic data to
18 collect. There's also the issue of how do you
19 collect representative samples? Do you collect
20 with your windows open or windows closed? Do you
21 collect on weekends or do you collect during the
22 week when activities in a building are very
23 different? So you asked the question assuming we
24 have representative concentrations, getting to

1 those represented concentrations is a very
2 difficult project and it's very costly.

3 HEARING OFFICER MCGILL: I am sorry,
4 is there national guidance on how to collect those
5 indoor air samples?

6 MR. SALHOTRA: Well, there are
7 guidance in terms of getting a Summa canister and
8 putting it in a certain place, but collecting the
9 sample is not the issue. The issue is
10 interpretation of the samples, and that's where
11 there is really not much national guidance. And
12 it's the guidance is lacking because inherently
13 it's a difficult proposition. It's very variable.
14 You can measure the concentration today and get
15 one value, and tomorrow you could get
16 significantly different values just because you
17 have someone smoking in the house that next day
18 for benzene. That's one comment I wanted to make.

19 The second comment, we've heard
20 several times this morning, that U.S. EPA says not
21 to use Johnson and Ettinger models at gas station
22 sites or petroleum impacted sites. We've heard
23 different versions of that. Well, the problem
24 with that statement is that U.S. EPA is not

1 consistent in what they have been saying. There
2 is such a vast literature that has or vast number
3 of reports and papers that have come out, that you
4 can almost cherry pick and some without with any
5 conclusion. A lot of EPA documents talk about
6 attenuation factor of 10, which is concentrations
7 between inside the house and in the subslab or
8 below, and when you apply a J&E model, you get
9 definitely attenuation factors very different than
10 10. So, you know, to say that EPA doesn't like
11 this model or is just talking about very small
12 amounts of EPA's documentation is almost like
13 cherry picking. Having said that, all models are
14 approximate. There are assumptions in the models,
15 and you have to use them correctly.

16 The last comment I wanted to
17 make was about the use of biodegradation at
18 petroleum sites. We all recognize that most
19 agencies, most state regulators, recognize that
20 Benzene and other petroleum are biodegradable.
21 The problem is what biodegradation do you use if
22 you want to quantify the spot? That's where the
23 science is not there to support a reasonable
24 biodegradation rate. So I think to have

1 biodegradation in a Tier 3 is what most states are
2 doing.

3 And, lastly, I think the
4 Illinois EPA program is very reasonable when you
5 look at programs across the country. There are
6 some programs that are, majority of the programs
7 are a lot more conservative. There are probably
8 some that are a little less conservative in terms
9 of cost and ease of implementation. Thank you.
10 Again, that's as an independent consultant in this
11 profession.

12 HEARING OFFICER MCGILL: Let's go
13 off the record for one moment.

14 (Whereupon, a discussion was had
15 off the record.)

16 HEARING OFFICER MCGILL: One of the
17 last comments from Dr. Salhotra made we think and
18 we may have covered this somewhat at the first
19 hearing, but do we have any sense of how much more
20 it's going to cost to remediate sites by adding
21 this pathway? I don't know if you've seen, and
22 this is really a question for any of the Agency's
23 witnesses, for Dr. Salhotra in that capacity or of
24 his company in his experience, or I know Mr. Reott

1 mentioned it earlier, are either the experience of
2 other states or even ballpark or rough
3 calculations on what adding the indoor inhalation
4 pathway increase costs, and if so, any sense of
5 how much it would cost in getting sites through
6 either SRP or the U.S. T-program? And that may
7 vary across the state. I remember the last
8 hearing there was something about in Chicago
9 whether maybe the cost driver, as perhaps the
10 other parts of the state, without a groundwater
11 ordinance. I don't know if any witnesses have any
12 thoughts, now I'd appreciate hearing them.

13 MR. KING: Just everywhere in the
14 state if you have a site come into the Illinois
15 EPA for remediation purposes, you have to
16 determine the extent of contamination. That's
17 groundwater and soil. That's true even in
18 Chicago. They have an ordinance here that you
19 still have to determine rate and extent of
20 contamination. What we're talking about here, I
21 mean, if in fact somebody is doing the, already
22 doing the sampling for groundwater, they are going
23 to be able to compare against the Tier 1 numbers.
24 If they are going to be doing the geotechnical

1 data to determine the nature of the soil
2 conditions, which is something that's typically
3 done now already, that's information that can be
4 used in developing Tier 2. The soil gas
5 collection of soil gas sampling is something new,
6 and in terms of the TACO rules, but I don't think
7 it's going to be that expensive on a site basis to
8 do those soil gas demonstrations from the
9 information that we've heard about.

10 And then when it comes to the
11 remediation issue, we've provided a couple of
12 fairly low cost approaches. For, if you are
13 talking about smaller buildings, existing ones,
14 you have the option of building control
15 technology, which for a subslab depressurization
16 system, you are talking about the same kind of
17 system that's put in for -- put into a home for a
18 radon control, which is generally \$2,000 to \$3,000
19 expense, and that would cover the cost of
20 compliance on that issue. If you are talking
21 about buildings that have not been constructed,
22 again, a building control technology approach is
23 available in terms of putting down a geomembrane
24 and there's been testimony submitted on the cost

1 of geomembranes, and as a pre-building cost, those
2 don't seem to be that inordinately high either.

3 Finally, we still have the Tier
4 3 approach to looking at innovative ways to deal
5 with contamination. So it's an additional series
6 of steps to be thought through relative to
7 contamination at a site to make sure that
8 residents and occupants that would be above
9 contamination are not going to be impacted by that
10 contamination. That's what it's all been
11 something.

12 MR. SALHOTRA: I think there will be
13 some increase in cost. Every time you add a new
14 part to evaluate, there will be an increase in
15 cost. I think the option for not including the
16 Part 3 in a clean-up program today, I don't think
17 it's given what EPA is saying, given what ASTM is
18 saying, giving what the public is requiring, so
19 the question is as you said, how much does it
20 increase? It's going to vary significantly from
21 site to site. However, I can say based on my
22 experience in many other states, that the program
23 that has been proposed in the TACO is probably our
24 best, one of our best shots at being very

1 reasonable about the cost that is required,
2 because on a large number of sites, you can, there
3 are exit ramps at the end of each tier, so they
4 are mentioned. If your soil concentrations meet
5 the Tier 1 RO's for the indoor pathway, then you
6 are done, and the cost on that particular site
7 would be minimal. On the other hand, if you have
8 soil concentrations that are much higher, then the
9 RO's or are not protective of the pathway, there
10 will be costs there, and there should be costs
11 because we want to protect public health and the
12 environment and this program gives you enough
13 options to look at the pathway in a very smart and
14 technical and defensible manner and minimize the
15 cost, yet protect human health, in the
16 environment, so I think it's very good balance.

17 HEARING OFFICER MCGILL: Thank you.
18 Did anyone else have any testimony on the economic
19 reasonableness issue at this point? Okay, thank
20 you. I appreciate your patience, Mr. Reott. We
21 were on your testimony, but I think we've done a
22 lot to develop the record. Did you want to
23 continue with any additional rebuttal testimony?

24 MR. REOTT: If people are through

1 with questions, I have a couple responses to what
2 the Agency has said.

3 HEARING OFFICER MCGILL: Let's see
4 if there are any questions for Mr. Reott. I
5 know the Board has some.

6 MEMBER JOHNSON: I've got a question
7 just for Gary. You said, Gary, ten years ago when
8 you first started doing the TACO's things, that
9 you opted at that time not to go forward with this
10 indoor air inhalation because you considered it to
11 be premature and you didn't have what you needed
12 to do that then. I assume this J&E model has been
13 around at least ten years. What's changed, I
14 guess? What do you have now that you've put in
15 this rulemaking that you couldn't have done back
16 then that was premature then?

17 MR. KING: Well, for one thing, at
18 that point the federal guidance document, the soil
19 screening guidance document, I don't believe
20 addressed indoor air at that point. No, it did
21 not. So we've had the benefit of a federal
22 guidance document come out that has some
23 imperfections, but has had a lot of useful
24 information for us in looking at a lot of these

1 additional parameters. Because as we've talked
2 about, there are a lot of parameters that are
3 needed to make these equations work right and to
4 make these, to develop these Tier 1 numbers that
5 we needed to have some informational input on.
6 So, again, those documents, and we've tracked what
7 other states have been doing, we've tried to learn
8 from them in terms of what has been successful,
9 what kind of information they've acquired, and
10 frankly, things we think are mistakes. We've seen
11 like -- I'll give you an example, we saw -- we've
12 seen like New York and New Jersey. They've put
13 these -- they are reopening all these closed
14 sites, very aggressive, relooking at all these
15 issues and we concluded that's a mistake. You
16 shouldn't do that. And, you know, so there's been
17 information that we've acquired and tried to be,
18 tried to be as thoughtful and consistent as we
19 could.

20 I guess the final comment was
21 ten years ago we were just starting implementation
22 of TACO, and now we've had, we've seen the
23 strengths and how that can work and we can build
24 upon it as opposed to just trying to do everything

1 at once in that respect.

2 HEARING OFFICER MCGILL: Ms. Geving?

3 MS. GEVING: Mr. King, isn't a
4 factor that we considered, that ASTM also came out
5 with a publication dated March 7, 2008, that
6 specifically addressed vapor intrusion?

7 MR. KING: Yes, I think that's a
8 good comment. Yes, that's another document that
9 obviously was not in existence in '97. It really
10 is a recognition on a national basis that for the
11 need to have an indoor inhalation approach within
12 states.

13 MS. GEVING: Did that document also
14 further outline the science that made us feel more
15 comfortable with implementing that pathway in
16 Illinois?

17 MR. KING: That's true.

18 HEARING OFFICER MCGILL: Dr.
19 Salhotra?

20 MR. SALHOTRA: Yes, I think another
21 way to look at this, ten years ago if you went to
22 a national conference in our business, you would
23 rarely hear about indoor vapor intrusion. I don't
24 think today you can go to any conference in the

1 last five years where you would not hear about it.
2 So there's just been a huge effort to understand
3 this pathway, and now almost every state -- I
4 don't know -- almost every state requires that
5 this pathway be a noncontaminant in some form or
6 fashion.

7 HEARING OFFICER MCGILL: Are you
8 referring to the voluntary Brownfield programs or
9 U.S. T-clean-ups or both?

10 MR. SALHOTRA: Any type of clean-up
11 programs.

12 HEARING OFFICER MCGILL: We may have
13 a question or two, Mr. Reott, but if you had some
14 responsive testimony, this would probably be a
15 good time.

16 MR. REOTT: Just a couple of things.
17 One of the things we have in the last ten years,
18 we have field data now. Compared to Johnson
19 Ettinger, which was around long before ten years
20 ago. If you look at one article that was entered
21 to the record "Review of Research and Vapor
22 Intrusion" at page 17, and thereafter, there is a
23 long study of field studies and they show
24 uniformly the John Ettinger model doesn't

1 correlate the field data when you do resident
2 indoor sampling, and that's of concern because the
3 proposal is to adopt a Tier 1 Table that's based
4 upon this model working. And if there's concerns
5 that it doesn't actually produce real world data,
6 you know, maybe the model needs to be tweaked
7 some. The Agency has tweaked the model for
8 Illinois with temperature already by changing the
9 temperature in the model. That's something that's
10 more specific to Illinois. I think the model
11 would be greatly improved by the same thing on the
12 soil front, and instead of going backwards from
13 the original FOC proposal, which had a higher FOC
14 going backwards now to an even lower number, I
15 think represents moving further away from what are
16 representative Illinois conditions to something
17 that's a laboratory theoretical thing. Everybody
18 is talking about it in conferences. If you have
19 tables that are really wildly over-conservative
20 because they are concerned about its impact on
21 projects, that doesn't mean it's a real problem.
22 It's not the same. The answer is not always the
23 same.

24 HEARING OFFICER MCGILL: Can I ask a

1 question about that point? I thought one of the
2 responses to your question, one of the Agency
3 responses was that they were setting up a Tier 1
4 to cover every site in Illinois and not just what
5 you are calling representative Illinois soil, for
6 example. What about that concern? Isn't that
7 what Tier 1 should represent?

8 MR. REOTT: When the Board has
9 chosen things to apply in the TAC program to
10 statewide, it has not always chosen the most
11 absolutely conservative number possible. In the
12 background levels are not most absolutely
13 conservative numbers found in Illinois. There was
14 a study done there was a range looked at for
15 Illinois values, and then the Board mixed a number
16 that was comfortable, represented frankly a very
17 conservative approach, but still was not the most
18 conservative number. It would be hard to find a
19 more conservative FOC value than the one that the
20 Agency proposed here that would make sense, or
21 water soil porosity.

22 HEARING OFFICER MCGILL: Could you
23 repeat that again?

24 MR. REOTT: Or water filled soil

1 porosity. It would be hard to find those numbers
2 in Illinois geology that are much more
3 conservative than those. And that's why I had
4 urged the Board, maybe the answer is to invite
5 someone in here from the state soil group. We
6 have scientists who specialize in this in
7 Illinois, and why not hear from them and why not
8 hear what is the range in Illinois and what would
9 be a conservative, but still typical, value.

10 I think we heard two other
11 interesting things from the Agency. One is that
12 you can use the existing model that's being
13 proposed to calculate the indoor air quality
14 objectives right now, then why not calculate them
15 and put them in the rule. I understand there's
16 issues about representative sampling, and there
17 are issues about false positives, frankly, but if
18 you remember the last hearing, the transcript of
19 the last hearing, for those of you who weren't
20 there, the issues about false negatives are not
21 the same. If you have representative sampling
22 about air flows in the building, if you get a
23 negative reading, false positives, maybe air
24 smoking, cleaner usage, or dry cleaning pick up,

1 but things like that are false negatives are still
2 meaningful, and that would be a very valuable
3 screening tool for the community to use to
4 regulate, to know that they meet Tier 1, and
5 wouldn't have to go any further.

6 MEMBER JOHNSON: Just as a threshold
7 level; if you are over that, you have got to go
8 on?

9 MR. REOTT: Then you've got to
10 figure out if it's smoking, cleaning products or
11 whatever it is. You can already calculate the
12 threshold levels, why not put them in the rule?

13 HEARING OFFICER MCGILL: You were
14 calling them false negatives, you just mean in
15 terms of what's reliable? You mean a negative
16 result under representative conditions?

17 MR. REOTT: A negative result under
18 representative conditions ought to be a reliable
19 result.

20 HEARING OFFICER MCGILL: Do you
21 think that alone should exclude the pathway as a
22 concern?

23 MR. REOTT: Why not.

24 HEARING OFFICER MCGILL: I just --

1 MR. REOTT: I don't see any reason
2 why not. That is the ultimate answer. Why use a
3 model to try to predict the number, when you have
4 the actual number. It's a much better surrogate,
5 I guess, for the air that the people are
6 breathing. I'm not suggesting we ignore real
7 health issues. I'm suggesting that's a better way
8 of looking at what they are really exposed to.
9 Given the General Assembly's mandate for what you
10 are trying to do here.

11 HEARING OFFICER MCGILL: Would you
12 still have all of the subsurface information, soil
13 and groundwater, under the approach that you just
14 suggested or is that not even gathered then?

15 MR. REOTT: The extent to which it's
16 gathered is going to depend on the site on what
17 the issues are and then also whether you are in a
18 state program or not. A lot of people are going
19 to be able to screen themselves out and never get
20 into a state program, because they are going to be
21 able to use TAC. One of the real advantages is
22 it's a very predictable, a regulated community
23 use. It is widely used without getting involved
24 with the state, conserves enormous state

1 resources. The wait for Tier 3 analysis would be
2 longer if that wasn't possible. And TACO is very
3 flexible, and so you give people different tools
4 and they'll find a way to solve the problem, but
5 this kind of restriction is going to drive people
6 to Tier 2 and Tier 3, and that's kind of contrary
7 to the whole philosophy on this.

8 HEARING OFFICER MCGILL: In a
9 laymen's sense, if you had the representative
10 negative indoor air sample, but there's source
11 contamination in the groundwater and the soil that
12 perhaps has not percolated up in the building, is
13 that a concern?

14 MR. REOTT: Well, if the release was
15 quite recent, yes. There is some travel time
16 involved. Yes, I mean, if the release was very
17 recent, I think in a sense that would make your
18 sample maybe not representative. It wouldn't
19 truly be representative. Once the conditions have
20 reached the static state, you know.

21 MEMBER RAO: How do you know if a
22 site specific situation, whether the conditions,
23 the site conditions are in a static stage or
24 what's going on unless you have some subsurface

1 information about the site?

2 MR. REOTT: You are going to get --
3 any site that has a serious issue, you are going
4 to get some subsurface data. I am not saying that
5 isn't going to occur. What I'm concerned about is
6 the fact that right now you are going to gather
7 that subsurface data, you are going to look at a
8 city with a groundwater ordinance -- it's most of
9 Illinois. It's not just Chicago -- most of
10 Illinois has a groundwater ordinance. You are
11 going to say, I have to be concerned about the
12 pathways, that I meet the values in the other
13 pathways. I'm done now. You are going to have
14 this additional table that you are going have to
15 meet and values are much more stringent. It's
16 going to drive people to do more and more
17 analysis. Even if they find a way out in some
18 other tier, they are going to do analysis. The
19 additional work is going to be there, if that was
20 necessary. If it's necessary, I remain
21 unconvinced that it's necessary.

22 HEARING OFFICER MCGILL: Did you
23 have any additional testimony you want to provide
24 because we're at 1:00 o'clock now. I know our

1 court reporter is going to change court reporters
2 during our lunch hour. Did you want to enter
3 anything else, Mr. Reott?

4 MR. REOTT: No, I'm done.

5 MR. SALHOTRA: Can I make a comment
6 on this concept of having a threshold indoor air
7 value? Conceptually it sounds very good, but when
8 you implement it, it's fraud with a lot of
9 problems.

10 Let me give you a lot of
11 examples. So you go inside someone's house and
12 you take a sample today and it is below the
13 threshold. Well, it's below the threshold only
14 for that period and that day. So the first
15 question is do you need to do that sampling once,
16 twice or ten times, because the indoor air
17 sampling results are very varied? So that's when
18 you meet the standard. But suppose you have the
19 other situation that you do not meet the standard?
20 Then it becomes very onerous on the industry and
21 on the, all the state boards involved, to figure
22 out what is happening. And that exceedence may
23 have happened just because of an indoor source,
24 but to prove that and to alae the concerns of the

1 getting a representative indoor sample depend on
2 the season, if you are talking about Illinois?
3 Winter versus summer? I mean, how quickly can
4 you -- assuming you can get representative
5 samples, you don't have the problem with the smoke
6 or the dry cleaning that was brought home, is this
7 a one-shot, take a sample in the house, or is this
8 something that has to take place over the course
9 of months?

10 MR. SALHOTRA: You know, to collect
11 a sample is typically done over an eight-hour
12 period or a 24-hour period. So you leave the
13 Summa cannister, and it's in a vacuum, and you
14 open the valve so that it fills over a 24-hour
15 period or an eight-hour period. So collecting the
16 sample itself is a relative short duration.
17 However, as I mentioned earlier, there's a lot of
18 variability in that sample just because the
19 climate is different in summer versus winter. In
20 winter you may have heating, whereas in summer you
21 may not have. There's just too many dynamic
22 factors that effect that.

23 HEARING OFFICER MCGILL: So if you
24 ran, if you collected one, I'm assuming you need

1 to run it with your furnace on and then your
2 furnace off, and then the windows open and windows
3 closed? I mean are these -- what are the other,
4 just an example of some of the variabilities?

5 MR. SALHOTRA: If you are look
6 cooking, not cooking? Did you use, did you go to
7 a party last night and you used a lot of cosmetics
8 or the other day you didn't use cosmetics.
9 There's a whole bunch of things. Was the house
10 painted? When was the house last painted? And
11 did you use gasoline to mow the lawn? And, you
12 know, did the children use some type of glue
13 because they have a project for their home? There
14 are just, you know, the list goes on and on.
15 There's a huge number of factors.

16 HEARING OFFICER MCGILL: That's a
17 list of ways you could get false positives. If
18 you are trying to get representative conditions,
19 does that have to be taken at different times of
20 the year or I'm going to do with the furnace on,
21 furnace off?

22 MR. REOTT: Or is one time of the
23 year worse? I don't know.

24 MR. SALHOTRA: There's so much

1 variability to answer your question. I'm sorry, I
2 wish I had a short answer for you.

3 HEARING OFFICER MCGILL: No, that's
4 okay.

5 MR. SALHOTRA: But the things that
6 you mentioned, furnace on, furnace off, windows
7 opened, windows closed, would be good, but those
8 are not the only ones. If there is atmospheric
9 low pressure going over the area, that can cause
10 outgassing from subsurfaces, and that can have an
11 effect. There's just many factors.

12 HEARING OFFICER MCGILL: Sir, did
13 you have a question?

14 AUDIENCE MEMBER: Actually, I have a
15 statement I can make off the record. I haven't
16 been sworn in, but it's prevalent to the
17 situation.

18 HEARING OFFICER MCGILL: We can
19 swear you, in but we're probably at the point
20 where we need to break. Can you stick around and
21 resume it.

22 AUDIENCE MEMBER: I am with Test
23 America. We do a significant amount of testing
24 around the country. I'm very familiar with what

1 other states are doing.

2 HEARING OFFICER MCGILL: I'd very
3 much like to hear from you, but I think our court
4 reporter has to leave, and we've already gone
5 about six or seven minutes over. Mr. Reott, are
6 you going to stick around for the afternoon? The
7 Agency, you'll be here. Sir, if you could make it
8 back in about an hour, that would be terrific.

9 What we are going to do is take
10 our lunch break now. Why don't we try to be back
11 here at 2:10.

12 (Whereupon, a discussion was had
13 off the record.)

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

4

5 I, DENISE A. ANDRAS, being a Certified
6 Shorthand Reporter doing business in the City of
7 Chicago, Illinois, County of Cook, certify that I
8 reported in shorthand the proceedings had at the
9 foregoing hearing of the above-entitled cause.

10 And I certify that the foregoing is a true and
11 correct transcript of all my shorthand notes so
12 taken as aforesaid and contains all the
13 proceedings had at the said meeting of the
14 above-entitled cause.

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DENISE A. ANDRAS, CSR
CSR NO. 084-0003437

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