ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PROPOSED AMENDMENTS TO TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (35 ILL. ADM. CODE 742)	R06-10 (Rulemaking-Land)

Proceedings held on March 1st, 2006, at 10:30 a.m. at the Illinois Environmental Protection Agency, North Entrance, TQM Room, 1000 E. Converse, Springfield, Illinois, before Richard R. McGill, Jr., Chief Hearing Officer.

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G. Tanner Girard
Thomas E. Johnson
Andrea S. Moore
Anand Rao

IEPA WITNESSES:

Gregory W. Dunn
Ron Turpin
Larry Eastep
Tracey Hurley
Douglas W. Clay
Gary King
Thomas Hornshaw

HEARING OFFICER MCGILL: Good morning and welcome to this Illinois Pollution Control Board hearing in Springfield. My name is Richard McGill and I'm the hearing officer in this rulemaking Docketed R06-10 and captioned "In the Matter of: Proposed Amendments to Tiered Approach to Corrective Action Objectives (35 Illinois Administrative Code 742)."

On September 30th, 2005, the Board received this rulemaking proposal from the Illinois Environmental Protection Agency. Generally the Tiered Approach to Corrective Action Objectives, or TACO rules, provide procedures for developing remediation objectives based on risks to human health posed by site environmental conditions.

Today is the second hearing in this rulemaking. At this time no additional hearings are scheduled. We held the first hearing in Chicago on January 31st, 2006. Also present today on behalf of the Board, Member Andrea Moore, the new board member for this rulemaking, Chairman Tanner Girard, Member Thomas Johnson and Member Nicholas Melas, and to my right the head of our Technical Unit, Anand Rao.

Today's proceeding is governed by the Board's procedural rules. All information that is relevant and not repetitious and privileged will be admitted into the record. Just so everybody -- A number of you know already there's a -- another board hearing, rulemaking hearing, scheduled this afternoon at two

o'clock. It is Docketed R06-19 "In the matter of: Clean Construction or Demolition Debris Still Operations Under Public Act 94-272." That's 35 Ill. Admin Code 1100. I expect that we would be finished probably no later than one o'clock so that anyone interested in attending that hearing will be able to get over to the Illinois State's Museum Auditorium, that's 502 South Spring Street, Lower Level. Our technical head, Anand Rao, is going to need to be in attendance there, but I will stick around and we will stay as long as anyone cares to testify and pose questions even if that goes past one o'clock. But there are a number of folks who want to get over to that other rulemaking hearing at two, and I think we should be able to finish here in a timely manner.

In terms of the order that we will follow today, we will begin with the Agency's testimony followed by any questions for the Agency's witnesses. The issue of ADLs, or Acceptable Detection Limits, we're going to hold off on questions relating to ADLs until later on in this proceeding in part because the ADLs were not part of the IEPA's rulemaking proposal and they are the proponent, so I want to get through the items that are the subject of the Agency's proposal first and then we will move on to the ADLs.

We have testimony that we're expecting to hear today from several people concerning ADLs, that will come later. And I

would ask that everyone hold off on any questions they have concerning ADLs until -- until we get to that stage of today's hearing. We will then proceed likewise with the others who pre-filed their testimony. I've been made aware of two other witnesses who did not pre-file but who are interested in testifying today: Steven Gobelman, with the Department of Transportation and Richard Halm of Environmental Monitoring and Technologies, and certainly anyone else who wishes to testify today will have an opportunity to do that, time permitting. Those who testify will be sworn in and may be asked questions about their testimony.

I will take care of a few housekeeping items first before we begin with the Agency's testimony. One of those items is the issue of the Department of Commerce and Economic Opportunity's lack of response to the Board's request that DCEO perform an economic impact study on this rulemaking proposal. Basically under the Environmental Protection Act, Section 27(b), we are required to request that DCEO conduct an economic impact study on proposed rules before the Board adopts the rules. DCEO may, within 30 to 45 days of that request, produce a study on the economic impact of the proposed rules. The Board must make that study, or DCEO's explanation for not conducting one, available to the public at least 20 days before a hearing. On November 10th, 2005, the Board sent DCEO a request to conduct an economic impact

study on the Agency's rulemaking proposal. DCEO has not responded to the Board's request as of yet.

Is there anyone who would like to testify today regarding DCEO's lack of response? Seeing none, I'll move on to just one other housekeeping item. If there's no objection -- And again, trying to keep things moving along quickly, the persons who pre-filed their testimony, that testimony, assuming there's no objection, is typically entered into the record as if read. Sometimes we'll have that witness provide a brief summary of that testimony, but the entirety of that written pre-filed testimony is entered into the record as if it was read here in its entirety.

Would there be any -- is there any objection to us waiving the brief summary -- brief oral summaries of any of those pre-filers? Go ahead, if you could just state your name.

MS. HODGE: Kathryn Hodge.

HEARING OFFICER MCGILL: And the organization you're representing?

MS. HODGE: With Hodge, Dwyer & Zeman for the Illinois Environmental Regulatory Group today. We have one witness who we pre-filed testimony for, Mr. Brian Martin, and we -- we would like for Mr. Martin to be able to present a brief summary. It will be brief. We understand your concerns of moving this ahead, but we do want a summary for Mr. Martin.

HEARING OFFICER MCGILL: Sure. Yeah, that will not be a problem. But go ahead, again just state your name and the organization you're representing.

MR. THOMAS: Jarrett Thomas with Suburban Laboratories. I too would like to give a brief summary.

HEARING OFFICER MCGILL: Okay. Just -- And that's fine. I think we may save some time with the three Agency witnesses unless -- before we went on the record I was conferring with counsel for the agency, Ms. Kim Geving, and the Agency's comfortable not providing brief summaries. Is there any objection to the Agency's witnesses not running through a brief summary of their testimony? Is there anyone who would rather hear their summaries? Okay. Seeing no response, I think we'll, at least with the Agency witnesses, dispense with the summaries.

Are there any questions about the procedures we're going to be following today? I would ask that everyone please speak up and try not to talk over one another so our court reporter can clearly transcribe everyone's comments.

I'm going to -- At this point since the Agency witnesses are not going to be providing any summaries of their testimony, what I'd like to do is take care of some paperwork here. The Agency filed a Motion to Correct Portions of the Hearing Transcript, the first hearing transcript, the February 21, 2006, motion. Is there any objection to granting that motion, to

corrections to the first hearing transcript? Seeing no objection, I'll grant that Agency motion.

There are several proposed hearing exhibits. We had six hearing exhibits from the first hearing. Now there are several more Agency exhibits that are being proposed. The first is Errata Sheet Number 3 from IEPA. Is there any objection to entering that as a hearing exhibit? Seeing none, Errata Sheet Number 3 will be Exhibit 7. Is there any objection to entering into the record, as if read and made a hearing exhibit, the Pre-filed Testimony of Gregory Dunn? Seeing none, I'll grant that motion. That will be Exhibit 8, Pre-filed Testimony of Mr. Dunn entered as if read. The next motion is for the Pre-filed Testimony of Dr. Thomas Hornshaw of the Agency. Is there any objection to entering that as a hearing exhibit and entering it as if read? Seeing none, I'll grant that motion and that will be Exhibit 9. And last, Pre-filed Testimony of Lawrence Eastep of the Agency. Is there any objection to having that entered into the record as if read and made a hearing exhibit? Seeing none, that will be Hearing Exhibit 10. And that is entered into the record as if read.

With that, at this point what I'd like to do is open it up to questions for the Agency's witnesses. I understand the Agency would like to field the questions as a panel. I'm going to go ahead and have the court reporter swear in the Agency's witnesses

collectively at this point, and then perhaps, Ms. Geving, as counsel for the Agency, you can introduce the witnesses.

MS. GEVING: Yes. We have two extra witnesses sitting on the panel today for purposes of questioning and responding to questions posed to the Agency. One to my right is Ron Turpin who is Manager of the Quality Assurance Section for our Division of Lab, and to his immediate right Tracey Hurley who works in our Toxicity Assessment Unit. The rest of the witnesses were at the first hearing. We have Tom Hornshaw who is the manager of the Toxicity Assessment Unit, Greg Dunn, Larry Eastep, Doug Clay and Gary King.

HEARING OFFICER MCGILL: Welcome. I would ask the court reporter to swear in the Agency's witnesses collectively at this time.

(The witnesses were sworn by the reporter.)

HEARING OFFICER MCGILL: Before the Board asks the several questions it has, I would open it up to members of the public, if anyone else has any questions for the Agency's witnesses. And again, I would just ask at this point we hold off on questions concerning Acceptable Detection Limits. Ms. Hodge?

MS. HODGE: Katherine Hodge. I have just one question, and I believe this is for Mr. Eastep. And, Mr. Eastep, you offered testimony in your pre-filed regarding the mandatory use of the new form. And we have a question today about retroactivity.

Specifically what is the Agency's position regarding agreements such as the ELUC and/or the Highway Authority Agreement that have been negotiated and executed prior to the effective date of the rules but not yet submitted to the Agency? Does your proposal require that such agreements be re-negotiated if they are not identical to the new form?

MR. KING: If I may go ahead and answer that?

MS. HODGE: Sure.

MR. KING: The answer is no.

MS. HODGE: Thank you.

HEARING OFFICER MCGILL: Are there any other questions for any of the Agency's witnesses? Seeing none, at this time the Board will proceed with a few questions.

Dr. Hornshaw testified at the first hearing that the seven carcinogenic polynuclear aromatic hydrocarbons, or PAHs, and the Agency's proposed Table H on background levels, pose a cancer risk between one and 10,001 and 1,000 -- I'm sorry. One and 10,001 -- between one in 10,000 and one in one million; is that correct?

MR. HORNSHAW: Correct.

HEARING OFFICER MCGILL: There's a provision in Section 58.5, via of the Act, that concerns residential use and ensuring the remediation objectives not be greater than one in one million. Do you see any inconsistency between that language and

in the statute of the Agency's use of the background table for carcinogenic PAHs?

MR. HORNSHAW: The inconsistency -- I guess the inconsistency would arise statewide. And by that, I mean, the background levels that we've measured or have been measured in the Chicago study and the EPRI study kind of represent urban conditions statewide. And so literally just about everybody in the state that lives in an urban environment is probably exposed to greater than a one in a million risk because of the background levels of PAHs that are present. I don't know how better to answer that question.

HEARING OFFICER MCGILL: Thank you. I have just one other follow-up question. Do the non-carcinogenic PAHs in the Agency's proposed Table H have a hazard quotient greater than one?

MR. HORNSHAW: No, they don't.

HEARING OFFICER MCGILL: It's less than one?

MR. HORNSHAW: Yes.

HEARING OFFICER MCGILL: Thank you. Are there any other questions for any of the Agency's --

MR. THOMAS: Could you just repeat that citation that you had from the Agency?

HEARING OFFICER MCGILL: Yeah, I'm sorry. It's section 58.5(d). That's 415 ILCS 5/58.5(d). We have a few more questions for some of the Agency's witnesses. Mr. Rao?

MR. RAO: Yeah, actually I have a couple of questions for Dr. Hornshaw on the same line about the PAHs that are being proposed here with a background level. As looking at the evaluation for similar -- similar acting chemicals under TACO, you know, and even though we don't require similar acting chemical evaluations for soil remediation objectives --

MR. HORNSHAW: In Tier 1?

MR. RAO: -- in Tier 1, and I think a while back when we did the original TACO rule you testified there was -- that evaluation for soil at Tier 1 was not necessary because of the convoluted soil screening levels that were offered as Tier 1 levels in the Board rules. Now since we are moving away from the SSL for these PAHs, is there any concern about the cumulative effect of the similar acting chemical because some of these PAHs are on the list of similar acting substance?

MR. HORNSHAW: I agree it's probably less conservative than if you would follow the risk based values. However, the sum of the risks from the background levels that are in the table still follow within the 10 to minus 4 to the 10 to minus 6 risk level.

MR. RAO: Even if they are present at the site, like more than one of these chemicals are present at a particular site, it would still fall within the range?

MR. HORNSHAW: If they're present at concentrations less than the values listed in the background table, yes, they still

fall within that risk range.

MR. RAO: Okay. Yes. Yeah, that's just what I wanted to make sure that whether we should require evaluation in Tier 1 or not if these chemicals show up, multiple chemicals show up at a particular site.

MR. HORNSHAW: At Tier 1?

MR. RAO: Yeah. Or have you looked at that issue?

MR. HORNSHAW: That might deserve some looking into.

MR. RAO: Yeah, we'd really appreciate it if you can take a look at it and get back to us and provide some comments.

MR. HORNSHAW: Sure.

MR. RAO: Thank you.

HEARING OFFICER MCGILL: At this point the Board doesn't have any further questions for the Agency's witnesses. I'll just ask one last time if anyone has any questions of these witnesses other than ADL questions? Seeing none, let's just go off the record a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: At this point of the hearing we're going to proceed with IERG's presentation, that's the Illinois Environmental Regulatory Group, and I'll turn is over to IERG's attorney, Ms. Hodge.

MS. HODGE: Thank very much. I have one witness with me today, Mr. Brian Martin, and he is with Ameren Services and he

has -- we did submit the pre-filed testimony for him and I would like to move to admit that as an exhibit.

HEARING OFFICER MCGILL: Okay. With that motion to have Brian Martin's pre-filed testimony entered into the record as if read, is there any objection? Seeing none, I will grant that motion and that will be Hearing Exhibit 11.

MS. HODGE: Thank you. And I would also like to introduce some other folks here today with the Illinois Environmental Regulatory Group. We have D. K. Hirner who is the Executive Director of IERG, Harry Walton who is the consultant with IERG and from Hodge, Dwyer & Zeman, Monica Rios who is here today.

HEARING OFFICER MCGILL: Welcome. Why don't we go ahead and swear in your witness. Can you swear in the witness, please?

(The witness was sworn by the reporter.)

HEARING OFFICER MCGILL: You can proceed.

MR. MARTIN: Thanks.

MS. HODGE: You just summarize.

MR. MARTIN: Okay. I'd just like to offer a little summary of the history of how this background PAH study came to be and purpose that we an industry were trying to achieve whenever we started this.

We approached the Agency a few years ago with some anecdotal information that the Tier 1 residential PAH objectives were in some cases becoming an impediment to cleanups because we

were finding that background concentrations of PAHs in many cleanup situations were actually higher. It was difficult to achieve the Agency's cleanup objectives, so we approached the Agency with doing a background study similar to studies that had been done other days.

The utility industry undertook this effort because of our interest in PAHs, specifically in our cleanups of manufactured gas plants, and in discussions, starting with Larry Eastep and later with Dr. Hornshaw, we realized this study could have broader implications and might be useful for lots of cleanup opportunities outside the -- the utility industry, for example, facilitating ground fill cleanup and avoiding the creation of islands of clean where background PAHs are a problem and make it difficult to reach Tier 1 objectives.

In order to, I guess, get Agency buy-in and make sure that they were comfortable with the work that we did, we put together our experts at the Electric Power Research Institute with IEPA's experts, Dr. Hornshaw and some others, and we developed a method of the study. Before we collected any samples we wanted to make sure that techniques, the areas being sampled, the sample location selection, things like that were all going to be satisfactory to the Agency so that in the end the results would be acceptable, and then we went out and did the study.

The other thing we got by collaboration with the Illinois

EPA was consistency with the background PAH study that was being done in the city of Chicago concurrently, that way there was a study in Chicago and then a study that covered the rest of down state so that we could cover all of Illinois at the same time without a lot of duplicating resources.

And I guess in the end I just want to commend the Agency on working with us collaboratively in this research endeavor and the rulemaking. It worked out very well, I think, and the results were very satisfactory. So I guess I'll take questions.

MS. HODGE: Thank you. Any questions for Mr. Martin?

HEARING OFFICER MCGILL: Before the Board poses any questions it might have, does anyone else have any questions for the witness? Seeing none, let's just go off the record for one moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: Go back on the record. Thanks.

MR. RAO: I just have a few general questions about the report that was submitted by the Agency. I think we are -- we have incorporated these reports by reference and also there will be -- instead of published studies on which the rules, you know, Agency relied on. I just wanted to know if looking at the EPRI report it seems like it has officially been published by EPRI?

MR. MARTIN: Yes.

MR. RAO: Is that correct?

MR. MARTIN: That's correct.

MR. RAO: During this process will there be any additional pier review that it goes through or is it just order of this report and the IEPA?

MR. MARTIN: There was internal review within EPRI and also within the participating utilities and members of the utility Agency and the IEPA. But at this point the document is final. There will be no more review.

MR. RAO: And I think it was also mentioned that EPRI is involved in a nationwide study, is that --

MR. MARTIN: That's correct.

MR. RAO: That's correct. And this is part of the study?

MR. MARTIN: That's right.

MR. RAO: So some of the, you know, methodology used in this study are also being implemented in other states?

MR. MARTIN: That's right.

MR. RAO: Okay. That's all I have. If you have anything to add.

MR. HORNSHAW: Nobody else has questions?

HEARING OFFICER MCGILL: I have a couple of follow-up questions. Would you like to ask some questions?

MR. HORNSHAW: I was wondering if Mr. Martin has any insight as to what the other -- other parts of the EPRI study are finding, whether -- if he can divulge it, whether they're finding

differences in other states or if it's pretty similar to what they found in Illinois?

MR. MARTIN: I've not seen the other studies, but in speaking to Dr. Andy Coleman at EPRI, who is in charge of the nationwide efforts, he tells me that the results they're seeing in other states are very consistent and there's very good corroboration between the Illinois results and other states. Specifically one state we talked about was Pennsylvania.

MR. HORNSHAW: Thank you.

MR. RAO: And in other states also are they doing the study pretty much like they did in Illinois with, you know, major urban centers being done separately or --

MR. MARTIN: They are. We're trying to select -- or they're trying to select sample locations that are representative of urban background. What they're avoiding are rural properties, farm fields, for example. They're picking locations that are in populated areas but are not known to have any obvious source of contamination. And they're generally finding properties that are public use or, for example, public parks or utility easements and things like that.

MR. RAO: Thank you very much.

HEARING OFFICER MCGILL: I just have one question. Mr. Martin, on page three of your pre-filed testimony when you're describing this investigation, it indicates that the protocol did

not attempt to characterize PNAs on a statewide basis. I'm quoting it says, quote meaning that industrial, commercial, rural, agricultural, and recreational areas were not investigated, and earlier in the paragraph it indicated that the investigation -- the objective was to include -- included some agricultural and light industrial areas. I wasn't -- maybe I'm misreading that or is that --

MR. MARTIN: Well, I understand the --

HEARING OFFICER MCGILL: Could you explain that?

MR. MARTIN: Yeah, I understand the confusion. Early on in the discussion of selecting the sampling methods, we agreed with IEPA that it would be best to try to make these background determinations conservative, so to that end we avoided industrial properties where there was obvious contamination. Likewise, we didn't want to go out and sample a lot of open vacant land where -- where -- where there was no population. We were trying to identify background PAHs in populated areas, small cities, things like that. In some cases where it was necessary to find representative samples for populated areas, there might have been samples, and probably were, samples collected from agricultural land at the edge of town, for example, but it was still considered to be within a population center.

HEARING OFFICER MCGILL: Thank you. Any other questions for IERG's witness? Seeing none, why don't we go off the record

for a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: We're going to go out of order, again, just for continuity in our hearing transcript and we're going to hear from the Illinois Department of Transportation. At this point I will turn it over to IDOT's attorney. Welcome. Just go ahead and introduce yourself and your witness.

MS. BUSHUR-HALLAM: My name is Cindy Bushur-Hallam and I'm legal counsel for the Department of Transportation. And with me today is Steven Gobelman who is our basically Special Waste Assessment Engineer in the Department. And we have with us today his testimony and an attached exhibit. And after he's through with that, I'd like to move for that to be admitted into the record.

HEARING OFFICER MCGILL: Okay. Why don't we swear in the witness and he can then provide his testimony.

(The witness was sworn by the reporter.)

HEARING OFFICER MCGILL: Thanks. You can proceed.

MR. GOBELMAN: My name is Steve Gobelman. I am currently the Geologic and Waste Assessment Specialist with the -- within the Bureau of Design and Environment of the Illinois Department of Transportation. I have been at my current title since September of 1993. Prior to being employed with the Department, I was employed by the Illinois Environmental Protection Agency

from 1985 through 1993.

I'm a graduate of the University of Alaska-Fairbanks in 1985 with a master's of science degree in Geological Engineering and a graduate of the University Missouri-Rolla in 199 -- 1983 with a bachelor of science degree also in geological engineering.

Today I will testify in regards to the proposed changes to certain highway authority agreements, in particular Section 742.1020. I have provided an attachment to be entered into as exhibit an amendment to Section 742.1020. In such amendment, the Department is requesting that the Department be exempt from the model highway authority agreement set forth in Appendix D. The Department has worked with the Agency, meaning, the Illinois Environmental Protection Agency and the Illinois Attorney General's Office, in establishing our own standard highway authority agreement which satisfies not only the requirements of the model highway authority agreement but also the TACO regulations.

As a state agency, the Department has unique legal requirements that other highway authority would not have. The Department's current agreements contains the following additional legal provisions unique to the State of Illinois (1) that all the department highway authority agreements must be reviewed and approved by the Attorney General's office (2) that the Department's highway authority agreement is null and void if the

Illinois Attorney General's Office and Illinois Environmental Protection Agency do not approve of such agreement (3) if the Department should breach the highway authority agreement, the owner's sole remedy for an action of damages is through the Illinois Court of Claims. Because of these additional requirements, the Department should be exempt from complying with the standard form and substance found in the model highway authority agreement found in Appendix D.

This concludes my portion of the Department's testimony for the proposed amendments to TACO.

HEARING OFFICER MCGILL: Thank you. Are there any questions for IDOT's witness? Ms. Hodge?

MS. HODGE: I just have one question. Do you have additional copies of his testimony?

MS. BUSHUR-HALLAM: Yes.

MS. HODGE: Thank you.

MR. GOBELMAN: Yes.

MS. GEVING: I have one question too. In your own highway authority agreements would you still meet the four corners of the TACO regulation?

MR. GOBELMAN: Yes.

HEARING OFFICER MCGILL: Any further questions?

MR. GOBELMAN: Wait. Maybe instead of a one word answer, what we would plan to do would be to probably take the model

agreement that's in the regulations that's adopted and then add onto the end of that whatever additional requirement that is required by our statute and requires for the Attorney General's Office to that. We would add on and build additional sections that we need to have to make our agreement then consistent with your agreements.

MS. GEVING: Thank you.

HEARING OFFICER MCGILL: Any further questions for this witness? Okay. At this point there's been a motion to enter the written version of the testimony along with the attached proposed language change to Section 742.1020(a), is there any objection to that motion? Seeing none, that will be entered as hearing Exhibit 12. Did IDOT have anything further?

MS. BUSHUR-HALLAM: Not at this time.

HEARING OFFICER MCGILL: Thank you very much for coming today. Let's go off the record for a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: Before we move on to testimony concerning Acceptable Detection Limits, there is a motion to enter as Exhibit 13 a group exhibit, and I'll describe what that group exhibit would consist of. The Agency is submitting this in response to the requirement of the Illinois Administrative Procedure Act. It's codified in more procedural rules at 102.202(e), a listing of published studies and research reports

that the Agency used in developing these proposed amendments.

What this exhibit consists of is a listing of the materials incorporated by reference as well as a listing of documents not incorporated by reference, and then there are six USEPA Integrated Risk Information System documents.

I can describe those very briefly. The first one concerns Acetone. The second one is Boron and Compounds, CASRN 7440-42-8. The third one is 1, 2-Dibromoethane. The next one is 1, 1-Dichloroethylene. The next concerns Phenol. And the last of the Integrated Risk Information System documents concerns Xylenes. Is there any objection to entering this group exhibit as Exhibit 13? Seeing none, I'll grant that motion.

At this point what I'd like to do is ask Mr. Thomas to come up front. Mr. Jarrett Thomas from Suburban Laboratory, Incorporated pre-filed his testimony. It concerns Acceptable Detection Limits. And he's going to provide a summary of his pre-filed testimony. Welcome. We'll go ahead and swear you in at this point and you can proceed with your summary of your testimony.

(The witness was sworn by the reporter.)

HEARING OFFICER MCGILL: You can proceed.

MR. THOMAS: I don't have any representation with me so I don't know the formalities of asking for my testimony to be entered into the record.

HEARING OFFICER MCGILL: I'll -- If you like your pre-filed testimony entered as if read -- In fact, we can just take care of that the right now. Is there any objection to having Mr. Thomas's Pre-filed Testimony entered into the record as if read? Seeing none, I will grant that request and his pre-filed testimony becomes Exhibit 14.

MR. THOMAS: Thank you.

HEARING OFFICER MCGILL: Go ahead. Thanks.

MR. THOMAS: First off I'd like to clarify at the last hearing I -- I testified and I mentioned that I would be willing as a member and as the president of the Illinois Association of Environmental Laboratories to present testimony here and in response, I believe, it was to Mr. King's question of submitting actual ADLs on behalf of our association, I acknowledged that I would be willing to do that.

Our association had a few work group meetings over the past couple of months to discuss this rulemaking and this testimony. And on the issues of ADLs and methods, specifically, our association was unable to come up with a consensus primarily due to the lack of time from the last hearing to this hearing and the deadline to pre-file.

So while a lot of my comments are going to be in -- in agreement with the association, we felt that it would be best not to proceed as the Illinois Association of Environmental Labs. So

my comments and my testimony is on behalf of my company, Suburban Laboratories, of which I'm the vice president and co-owner. Where my comments may reflect those of the association, I will do my best to try to acknowledge those. There are a few that are very specific and it's very clear cut.

First off I'd like to just acknowledge Greg Pronger, who's also with Suburban Laboratories. He helped me prepare this testimony and maybe -- I may call on him if there's some technical questions that I cannot answer. We'll see if we need to do that.

On the issue of the ADLs in particular, I believe that the -- the heart of the problem is the EPA's use of the terms PQL, ADL and MDL interchangeably. Both or all three of those acronyms have different meanings. And we believe that in the preparation of the original TACO where the ADLs were originally specified, that the Agency did rely on detection limits from methods rather than quantitation limits from various methods. And I go into some explanation as to why that's inappropriate. I'm not going to rehash any of that. But Mr. Hornshaw in his testimony on several occasions referenced detection limits. I tried to question him as to whether he was meaning quantitation limits. And it just struck me that there's a confusion between those terms.

There's many methods, especially drinking water methods,

that were cited for -- as the Agency reviewed in setting up the ADLs, where they don't use quantitation limits. The methods don't even specify quantitation limits. They specify detection limits. And, again, I don't want to go into details. It's in my testimony. So I believe that's at the heart of the matter and the reason why some of the ADLs that are currently in TACO are inappropriate.

The EPA -- the USEPA no longer uses the term PQL. That's a term that came out of their SW-846 methods manual, and sometime ago, I don't have the specific date, it was several years ago they stopped referring to that term. They changed it to EQL, Estimated Quantitation Limit, and in the definition SW-846 they specify that sample EQLs are highly matrix dependent and that the EQL in SW-846 are provided for guidance and may not always be achievable.

Another reason why I'm strongly against the use of published ADL -- or published MDLs, I'm sorry, or PQLs or EQLs for use of any analytical requirement, I cited in my testimony a Federal Advisory Committee that was established to address the issue of detection and quantitation limit approaches. I didn't provide a lot of specific detail there but there is a Federal Register citation that I listed.

There -- The issue of MDLs in particular in the analytical laboratory community have really come under fire. It's a

statistical calculation done on clean sample matrices. And there have been a lot of regulatory compliance rulemaking that has been done across the country using detection limits in trying to say these are the compliance objectives that are required of laboratories. Everyone understands the need to try to get as low as possible, but there become -- there's a point at which the laboratories can only detect solo using, you know, state-of-the-art instrumentation without running into problems. And this is the purpose for this Federal Advisory Committee to come up with a new approach and a new way to -- to calculate detection limits and how to assign appropriate quantitation limits at that point that can be used for rulemaking and used for reporting analytical data.

The EPA's definition of PQL, and this is something that was not caught by our association when the SRP rulemaking came out a few years ago, but the definition that the Agency has in TACO almost mimics the SW-846 definition up to a point. It leaves out all the discussion of the being highly matrix dependent and not always achievable and then adds a section where it talks about filtered water samples and that the EQL or PQL at that point is synonymous with method detection limit. Again, we're opposed to any use of detection limits for -- for setting compliance objectives.

And this is a -- The issue of performance based methods,

performance based measurement systems is something I reference in here as well. That's something that the environmental laboratory community is trying to get behind and trying to make more a part of rulemaking and more a part of laboratory method creation. SW-846, for example, is new methods that are being published and out for draft reference performance based measurement systems more and more, and I cite in here some -- some -- again some Federal Register notices and a brief definition of what performance based measurement systems are.

Ron Turpin from the EPA, who's here, could probably speak more on the issue of performance based measurements.

But we strongly suggest that the Agency can sit here adopting a performance based approach which takes into account what's analytically achievable, not just what the statistical risk based objectives end up calculating out to be.

I did my best to identify specific compounds that the -- that are difficult to achieve under the current ADL or -- or TACO objective. And I listed them in my testimony. There are other compounds that I did not reference. These are only the specific target compounds that are required in either the LUST or SRP programs, they're listed as target compounds in those programs, and those are the most common analytes that are performed in a laboratory. There's -- TACO contains dozens of compounds that aren't in those lists that may be specific -- site specific

target compounds, but in -- for most -- for the all intense purposes the labs don't analyze compounds unless they're required by -- by the EPA.

On the issue of FOC, we -- and this is something that our -- the laboratory association was in full agreement on, was making the FOC requirement a little more specific to help report data accurately, to remove any inconsistency in how one lab would report versus another.

And in conclusion, the main objective that we would like to see is that the Agency re-evaluate the ADLs that exist in TACO currently. There are ADLs that are listed that laboratories can routinely see lower than those ADLs. And then there are some compounds that have no ADLs and the objective is not achievable and the EPA has -- has acknowledged that.

What we would like done is a full review of the analytes in TACO and the -- an evaluation made as to the analytical capability so that a more performance based approach can be taken and remove the ambiguity with regards to the analytical requirements that are currently in TACO. Thank you.

HEARING OFFICER MCGILL: Thank you. The Board has several questions for Mr. Thomas, but we'll open it up for the rulemaking proponent. IEPA, I understand, has some questions for Mr. Thomas so I'll turn it over to Ms. Geving.

MS. GEVING: Thank you very much. My first question was

already answered by you at the beginning of your testimony. I believe our second question we're going to have a number of witnesses asking him questions as well as potentially providing rebuttal, so I'll just remind everybody that your sworn in under oath. Dr. Hornshaw, I believe, you had the first question for Mr. Thomas.

MR. HORNSHAW: Actually, what I'd like to do before we get into any kind of questioning is respond to what appears to be three misconceptions that Mr. Thomas has about how we deal with ADLs and detecting limits in general.

He states that we use PQL, MDL and ADL interchangeably, and that's really not true because the definition of PQL that's already incorporated into TACO states exactly what we intended for how to determine what the ADL is. So I don't -- I don't -- I don't see how we're using those three terms interchangeably.

The second misconception is in page four of Mr. Thomas's Pre-filed Testimony. He says that water samples are not filtered, and that is not true. There are a lot of cases where water samples are filtered. In fact, any of the projects that come to my unit in Tier 3 evaluations we have for a long time specified when groundwater samples are taken that either a low flow in-line filter be used, or if that's not going to work out for a project, that both filtered and non-filtered sample be analyzed. I won't speak for the Bureau of Land on how they deal

with filtered versus non-filtered, but for my unit his statement is not true.

And another statement also on page four he says that the PQL or the EQL should not be equal to the MDL, and to my knowledge we have not ever used an MDL as an ADL, Acceptable Detection Limit, for a cleanup objective. So -- so if you would like to respond to those before -- before I proceed, be my guest.

MR. THOMAS: Sure. Your first and third points I guess I can address together. One of the problem is we -- we have no way of -- some of the ADLs that are listed we have no way to verify where those came from. We were able to, and I say we, I mean me and several other laboratory people. I'm not speaking necessarily on behalf of the entire association. People I have talked to and worked with on this.

Some of the ADLs that are currently in there we cannot verify and there's -- we can't come up with where those numbers came from in looking at some of the methods. There may be methods that exist that you did refer to in coming up with those and found a quantitation limit. We weren't able to find that because that information isn't available. That is something we again would like to see is --

MR. HORNSHAW: That information --

HEARING OFFICER MCGILL: Let's let him finish his response and then, Dr. Hornshaw, you can comment.

MR. THOMAS: It wasn't readily available to us when we were reviewing the methods, the most commonly used methods for this work, which is SW-846 methods. Again, there may be methods out there. We don't know which ones you looked at.

MR. HORNSHAW: Okay. That information has already been entered into the record in the previous R99 rulemaking. It is attached as an exhibit to the testimony of Tracey Hurley, which I have here if you would like to look at it.

MR. THOMAS: Sure. I'd love to have a copy of it.

HEARING OFFICER MCGILL: Why don't we, since it's now being referenced in the transcript, it sounds like this is testimony earlier -- from a prior rulemaking?

MR. HORNSHAW: That's correct.

HEARING OFFICER MCGILL: Why don't -- Just for the convenience of following along in this rulemaking, why don't we make that a hearing exhibit. Do you have an extra copy?

MR. HORNSHAW: This is the only copy I brought, unfortunately.

HEARING OFFICER MCGILL: This is the -- Could you just hand it to me and I'll describe it. It sounds like this is already in a Board rulemaking record. Testimony of Tracey Hurley on Appendix A Table H and Appendix B Tables A, D, E and F. This is a TACO rulemaking. The caption is R99. Doesn't give the entire docket number. Do you recall which docket?

MS. GEVING: I don't recall. There was so many of them. I'm sorry.

HEARING OFFICER MCGILL: From looking at the source note in TACO -- Yeah, I was conferring with Mr. Rao. We believe this is from one of the R00-19 dockets, I believe Sub Docket A, but we'll verify that. In any event, this is Ms. Hurley's testimony on behalf of the Agency. Is there any objections to entering that as Hearing Exhibit 15 in this rulemaking? Seeing none, that will be Hearing Exhibit 15. And as long as I can -- why don't you hang onto it for purposes of -- Let's go off the record a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: Let's take a 10-minute break.

(A 10-minute break was taken.)

HEARING OFFICER MCGILL: While we were off the record the Agency realized that Ms. Hurley's testimony was from the prior proceeding, R00-19. There was a marked up copy and may not have been complete. So instead of designating that marked up copy as Hearing Exhibit 15, I'm just going to reserve Hearing Exhibit 15 and the Agency can file a clean, complete copy and that will be designated as Hearing Exhibit 15. It was previously filed in R00-19. It's already a matter of public record, and it's in that Board rulemaking record. With that clarification, Chairman Girard had a clarifying question.

MR. GIRARD: Yes, I just had a follow-up question to one of

the responses that Mr. Thomas had there. When you said that the values you get from the Agency can't be verified, are you talking about they can't be replicated or exactly what did you mean by can't be verified?

MR. THOMAS: We were unable to find the ADLs that were listed in TACO in all -- for all the methods that exist for environmental analysis. We were going to find that exact value in the publications.

MR. GIRARD: Oh, okay. Thank you.

MR. THOMAS: This may help us in searching for more of that information, this exhibit.

HEARING OFFICER MCGILL: Referring to Ms. Hurley's?

MR. THOMAS: Yes.

HEARING OFFICER MCGILL: Thank you. I believe where we left off there was an exchange between Dr. Hornshaw and Mr. Thomas. And, Mr. Thomas, I believe you were still responding --

MR. THOMAS: Yes.

HEARING OFFICER MCGILL: -- to some of Dr. Hornshaw's initial comments?

MR. THOMAS: Yes.

HEARING OFFICER MCGILL: Do you want to continue there then?

MR. THOMAS: Yes. I guess getting back to the issue of the MDLs and not being able to identify or replicate the data, the

exhibit that was provided here lists SW-846 methods, a variety of them. I didn't count them all up. There's probably seven or eight different analytical methods that are specified here. And one of the problems --

HEARING OFFICER MCGILL: I'm sorry. You're referring to -- when you say specified here --

MR. THOMAS: Yes, that would be the exhibit -- Ms. Hurley's exhibit.

HEARING OFFICER MCGILL: Thank you.

MR. THOMAS: And one of the difficulties that the laboratories run into is the inconsistency between regulations, the Site Remediation Program, for example, that specifies analytical methods. And for some of the compounds, the methods that are listed on Ms. Hurley's exhibit aren't the same compounds that are referenced in SRP. And so that's part of the problem. When we as an industry are looking at the sources for some of this data, we're looking at the most commonly used method references. We're not necessarily looking at the most -- just because a method exists somewhere in USEPA, that that's going to be a commonly used or a method. There may be one or two laboratories in the country running a super sensitive, state-of-the-art piece of equipment that are able to achieve certain detection limits, but there are methods that are more commonly used and methods that are not commonly used.

And for a large number of the analytes on Ms. Hurley's exhibit, I would say it would be very difficult to find a laboratory in the State of Illinois that's certified to do that work. And I'm -- you know, I understand there may be one or two laboratories that are certified for one or two methods, but to do a cleanup investigation, to analyze a full list of target compounds that typically come through to an environmental laboratory, running all of these methods to achieve all of the cleanup objectives is not done right now -- commonly done in this industry. And I can -- I can make that statement with fact. That's a situation that it's not common. The PQLs -- And that's what's listed in Ms. Hurley's exhibit is PQLs, not MDLs.

As I mentioned in the SW-846 definition of PQL, it specifically states that PQLs listed are not always achievable, which is another problem, again, we've been running into in the industry.

The second point that Mr. Hornshaw made was about the filtered water.

MR. JOHNSON: Wait a second. Before you leave that, when you say it's not achievable, you mean you don't have the equipment that's sophisticated enough to detect it at that level?

MR. THOMAS: Correct. The equipment nor the certifications.

MR. JOHNSON: Okay.

MS. GEVING: It would be possible for you to get the accreditation; is that correct?

MR. THOMAS: Sure. If you have the equipment and the staff and go through the process of getting accredited.

MS. GEVING: Do you feel that the process of getting accredited in Illinois is onerous?

MR. THOMAS: It's very time consuming. It's not an easy process. It can take a year or more in some cases, especially when you're bringing on line a piece of equipment that perhaps is new to a laboratory.

MS. MOORE: And how many certified labs are there?

MR. THOMAS: Totally? I'd have to defer to the EPA for that.

MS. GEVING: Mr. Turpin can answer that.

MR. TURPIN: There are -- I didn't bring that. Approximately 92. Approximately 60 of those would be in Illinois. We also accredit laboratories in other states.

MR. GIRARD: Well, why does the accreditation process take a year?

MR. THOMAS: From the time that you're -- from the time a laboratory is ready to request accreditation, it has to go through an extensive validation process internally. It has to follow the method requirements to validate an instrument. It has to run proficiency testing samples. Those proficiency testing

samples have to be run in a certain schedule.

For example, you can't run on -- you have to pass two out of three proficiency samples. And those studies can't be done at -- give or take a few days -- within a month of each other. So you have time in just waiting for results on those.

Assuming you do pass the proficiency testing sample, sometimes when you're setting up new technologies, you don't have it quite right at first and you have to run a third proficiency testing sample, so that process takes time. You have to write up your standard operating procedures, then you have to submit your accreditation to the EPA.

And there is -- I can only speak from my laboratory, but there's accreditations that I've asked to be added to my scope of accreditation and it's been a year since I've gotten that added to my scope. So it does -- it's just a process. The EPA has to respond to your request for accreditation if there's any problems. You have to respond. And it's a fairly lengthy process.

If everything goes smoothly, it could go as smoothly as maybe less than six months. But in most cases -- Matter of fact, our laboratory right now is in the process of validating some new technologies and new instruments and we're -- we have used a one-year time frame internally to say we need to be certified within one year from the time we submit our application. That's

what we use internally in our lab for that.

MR. TURPIN: I could make a few clarifications regarding the accreditation process. If a laboratory is already accredited in the technology involved in a new method, then the process would be, as Jarrett described, they have to run the method. They have to do some test samples. They have to do some QCs, initial demonstration of capability, submit that data to the Agency. The Agency assures that it looks good and can issue an accreditation.

If it's technology that the laboratory does not currently hold accreditation for, then we would have to -- we couldn't issue the accreditation until we visited the laboratory and inspected their performance of that. And our accreditation schedules now are done on a six-month schedule depending on -- if they called us in January, we've already scheduled all our visits through June. And so we would put them in the July through December schedule. So if they called in January, it could be, you know, November before we could get out there and do a visit.

Other than the assessment, if it was necessary, then the only time consuming factors would be the -- under the laboratory control in terms of how quickly they could bring the method up and the PC sample, performance testing sample, do have to be a certain period from one try to the next.

MR. JOHNSON: Before you go on to your second in your list,

with regard to your pre-filed testimony's assertion that the use of these acronyms, the ADL, MDL and PQL being used inappropriately and interchangeably, which Dr. Hornshaw suggested they're not, are there instances in the body of the rule that you could point out where you think they're using one term when they need to be using another?

MR. THOMAS: Yes. Well, in -- in specifically in the definition -- the Agency's definition of PQL, when they say when applied to filtered water sample, PQL includes the method detection limit. Right there they're using the terms interchangeably.

MR. JOHNSON: Okay.

HEARING OFFICER MCGILL: And just for clarification you're referring to the section within the TACO?

MR. THOMAS: 742.200, the definition section.

HEARING OFFICER MCGILL: Thank you.

MR. JOHNSON: Okay.

MR. THOMAS: And which leads me to the next question Mr. Hornshaw had about the filtered water samples. I'm not familiar with what department you're seeing analytical data coming through. And there are cases for some inorganics, metals types samples where the sample -- groundwater sample may be filtered, but that's not the case of organics. And I can't say with 100 percent certainty, but I do not remember any time in the past,

since the beginning of following TACO, where I received a filtered sample for organic analyses. I've checked with a few other laboratories in the room as well as engineers and that's not at all a common practice. So with regards to that definition, I think it either needs some serious clarification as to when -- when filtered water samples are required or when necessarily you're going to be using the method detection limit in lieu of the PQL, but that is not a common practice. Maybe some of the other people in Bureau of Land could testify to that as well. I don't know that they request -- they require a sample to be filtered for organic.

MR. DUNN: Greg Dunn. As far as the Site Remediation Program, we have a hard enough time trying to figure out what the consultants are doing out in the field and asking them questions and how they're doing their field work, so if they filter their samples for organics, we hardly ever know that.

Typically the filtering that we see will be done for the inorganics, but if they filter for organics in the field, a lot of times we won't even know about it. We're just not getting that type of information. And that's something that we're struggling with right now.

MS. GEVING: I have a clarifying question too for the Agency, specifically would be Tom Hornshaw, Greg Dunn and Doug Clay, regarding the PQL definition. Isn't the PQL definition

from TACO Part 742 the same as the definition of PQL in Part 620, 734 and 740?

MR. HORNSHAW: I believe for 620 it is. I'm not familiar with 740 and 743 enough to answer that.

MR. DUNN: Under 740.120 definition, the definition for PQL is the same.

MR. CLAY: And I believe it's the same under 734.

MS. GEVING: Thank you.

MR. THOMAS: I would like that verified because I don't believe it's a case in law 7 -- sorry, 630, 740 --

MS. GEVING: 620.

MR. THOMAS: Sorry, 620.

HEARING OFFICER MCGILL: Well, considering we'll take a look at the regs and you can certainly take a look at the regs yourself, and if you see any discrepancy, it can be noted in a public comment if you like.

MR. THOMAS: The requirements to filter a sample, is that something that should be specified in the -- in the regulation? Mr. Dunn said he doesn't know what they're doing in the field. I mean, surely we know how the samples should be collected?

HEARING OFFICER MCGILL: You're posing a question to the Agency?

MR. THOMAS: Yes. Sorry.

MR. HORNSHAW: I'll answer from my unit. The reason that

we specify either local in-line filtered or filtered plus unfiltered samples in the Tier 3 assessment is to mimic what a private well user would actually be drinking. They wouldn't be drinking mud if it's a really dirty, unfiltered sample which is why we say use a low flow in-line filter to mimic what wouldn't otherwise be coming out of most wells. And if they can't do that procedure, then we use the results from both the filtered and the unfiltered with some professional judgment to make assessments of what the risks are to the private well owner.

There has to be some professional judgment depending on what the well is producing as far as clear versus a muddy sample.

HEARING OFFICER MCGILL: Any further Agency response to the point? The question from the member of the public, if you could just state your name and title and who you're representing.

MR. TRUESDALE: My name is Joe Truesdale. I'm a professional engineer and professional geologist with CSD Environmental Services. Dr. Hornshaw, in the Tier 3 assessment relative to Tier 1 and Tier 2, you think the relative ratio of Tier 3 assessments to more standard Tier 1 and Tier 2 assessments are in the programs in Illinois, that would be how many you do versus --

MR. HORNSHAW: I can't answer that because we only see Tier 3.

MR. TRUESDALE: Right.

MR. HORNSHAW: Because the Bureau of Land does Tier 1 and 2, so I couldn't --

MR. TRUESDALE: About how --

HEARING OFFICER MCGILL: Just make sure you take turns talking. Let the question finish before the response starts.

MR. HORNSHAW: Our workload ranges between roughly 70 to 90 individual projects, some of which may have more than one document, more than one risk assessment. That's the ones that we tend to see during the year.

MR. TRUESDALE: Then another question would be to Doug Clay.

MR. EASTEP: Can I verify that a little bit?

HEARING OFFICER MCGILL: Mr. Eastep, go ahead.

MR. EASTEP: I would say that it's a relatively small percentage, probably less than 10 percent, of the sites come through the SRP program would end up getting a Tier 3.

MR. CLAY: So that would be the same for the LUST program.

MR. TRUESDALE: So the filtering sample is not standard operation in the Bureau of Land then for organic analysis?

HEARING OFFICER MCGILL: Could you repeat that question?

MR. TRUESDALE: Filtering of samples for organic analysis is not standard?

MR. EASTEP: That's correct, not standard.

HEARING OFFICER MCGILL: Did you have any follow-up

questions?

MR. TRUESDALE: I think that's it for right now.

MR. GIRARD: I have a follow-up. Mr. Thomas, you said the MDL is a statistical rather than chemical concept. Now how does the use of unfiltered water violate the assumption of your statistical test?

MR. THOMAS: I'm -- I don't necessarily follow. It doesn't violate the nature of -- it's still -- the MDL is still a theoretical value regardless if it's filtered water or not. I mean, I guess I think to understand your question, filtered water is a much cleaner matrix than unfiltered water. And again, I don't know the source of the water we're talking about here, but we will -- as a laboratory we like the water as clean as possible, and it doesn't make a difference in terms of the actual method detection limit that a laboratory is able to determine. There's going to be issues of reliability with any sample that comes through whether it be filtered or unfiltered as you approach the method section.

MR. GIRARD: So the issue is more with the reliability of the test than it is with the assumptions of your statistical model that go into formulating your MDL, which is a number that is still a statistical number?

MR. THOMAS: Yes.

MR. GIRARD: But you could do studies on various samples of

unfiltered water and figure out sort of the parameters of the chemical reactions and maybe come up with, you know, at least ranges of reliability, couldn't you?

MR. THOMAS: Yes, absolutely. We've done studies like that for a variety of customers where they have a particular sample and maybe there's some type of interference with the sample or some other reason where they would submit samples and we would take that actual sample matrix and spike that -- spike seven aliquots of those samples just like we would in the method detection limit study in reagent water. Do all the statistics, run the sample, do all the statistics and be able to come out with a method detection limit on that specific sample.

MR. GIRARD: You think these rules create a problem with doing that?

MR. THOMAS: It would be -- I don't know that the rules cause a problem. It would be extremely cost prohibitive for most people to run seven analyses plus their original sample and do all the detection limits. And the reporting of that would be a pretty costly process.

MR. GIRARD: So it's a cost problem rather than taking that data back to the Agency and getting approval?

MR. THOMAS: In most cases it would be cost prohibitive, yes.

MR. GIRARD: Thank you.

HEARING OFFICER MCGILL: I'm sorry. Did you have a question?

MR. PRONGER: This is to some extent clarification --

HEARING OFFICER MCGILL: I'm sorry. I don't mean to interrupt you. Did you want to make some testimony or did you have a question?

MR. PRONGER: Yes.

HEARING OFFICER MCGILL: Okay. Why don't you -- if you could state your name and title.

MR. PRONGER: Greg Pronger, Technical Director for Suburban Laboratories. Been in the industry environmental testing for roughly 20 years.

HEARING OFFICER MCGILL: Let's go ahead and swear you in, if that's all right, if you would like to give some testimony.

MR. PRONGER: Sure.

HEARING OFFICER MCGILL: Thank you.

(The witness was sworn by the reporter.)

MR. PRONGER: It's clarification that you have a general question regarding detection limit and the impact to filtering. I have personally been involved with the state of Wisconsin. They had concerns with regards to what I would call an MDL, Method Detection Limit, from -- with the laboratory performance using the cleanest water available to the laboratory, the ionized water, versus environmental samples. So they funded for the

laboratory, and this is specifically on pesticides, a comparison of MDL based on the ionized water and river water out of Wisconsin.

Generally speaking there is at least an order of magnitude difference between the published data from the EPA and the ionized water versus an MDL study in basically relatively to drinking water out of Wisconsin. So there's a very significant impact on the detection limits between the two matrices.

The water we are dealing with from Wisconsin was not heavily industrially impacted, is probably the best way to put that. So it's a fairly clean matrix but was still a significant change in the MDLs.

On top of that, even though this was the end matrix MDL study, an MDL by it's very nature is a theoretical number. There is no constraint within the EPA, the federal EPA's protocol, that the value that you get is ever validated.

So if you ask me as a laboratory person to run an MDL for you and I end up with an MDL at one, at one, there is no constraint that I ever verified that can I see one on my instrumentation. That is a completely theoretical value. Whether or not, depending on the constraints of the instrumentation, all sorts of perimeters that I could actually see one, there is no requirement that I can demonstrate that.

So that is part of the other issue when the state utilizes

a value based upon MDLs for TACO, these numbers are highly theoretical. The published ones are based upon the ionized water. A laboratory could go through the work, perform an in matrix MDL study, that gets you closer to reality. That is still a value that is never validated.

The EPA right now, that Jarrett had alluded to, is evaluating MDLs and they're more than likely going to drop the utilization of statistics to generate their MDL. It will be a spiked value which will change a complexion on how the laboratory demonstrates a lowered number of the report dramatically. That would be the end of my comment.

I hope that clarifies your question. I was trying to address the question on the issue of filtering, non-filtering and the issue of MDLs in its entirety.

MR. GIRARD: Thank you.

MR. PRONGER: You're welcome.

HEARING OFFICER MCGILL: And you're referring to USEPA when you mentioned EPA?

MR. PRONGER: Yes. The Federal EPA. The State generally defers to the USEPA guidelines for method detection and study. That was published originally as part of the Clean Water Act 40 CFR Part 136 Appendix B. That goes back to around 1982 when there was a comparatively simple seven replicate spikes that you run. It's changed since that point, but when people talk MDL,

when you talk to somebody like me, an old lab person, that's what we think about in terms of MDL is we're spiking the ionized water to generate those statistics. Right now protocol does not have me validate that I can actually see that number.

HEARING OFFICER MCGILL: Thank you. We're still in the -- generally in the middle of Agency questions for Mr. Thomas, but as people have questions that are on points of what we're covering, we've allowed that to -- we've allowed those questions to jump in. And on that note, if you could state your name for the record and your question.

MR. TRUESDALE: Joe Trusdale. Jarrett, I have a question for you and your general stance. I think one of the other problems that the Lab Association has is with the general reference to SW-846 in the TACO regulations without any specificity of what particular portions of SW-846 are being considered within TACO; is that correct?

MR. THOMAS: Yes.

MR. TRUESDALE: Actually, I probably -- I probably have some testimony to offer on that respect. I don't know if you want me to be sworn in or wait until later.

HEARING OFFICER MCGILL: Why don't we -- if you -- since you've asked that question, for the continuity of the transcript, why don't we swear you in now and you can make your testimony.

(The witness was sworn by the reporter.)

MR. TRUESDALE: With respect to the SW-846 within the SRP program and the LUST program, sample collection, as Mr. Dunn referenced, they don't really know what the consultants do in the field. A lot of that has to do with the non-specificity of the programs themselves. They reference SW-846 and tell us that samples shall be collected in accordance with SW-846. In the LUST program, particularly the new revisions in 732.307(j)(3)(g), it simply states that all wells shall be developed to allow free entry of groundwater, minimize turbidity of the sample and minimize clogging. It makes no reference to filtering, makes no reference to not having turbidity free samples.

And in SW-846 the broad scope of that reference actually qualifies different sampling methods for inorganics, organics, various analytes. But using the broad reference of SW-846 within the context of TACO, or any of the other programs, causes confusion on the laboratory -- from the laboratory side and the consulting side on what exactly the Agency would like us to do.

And another -- another item if, in fact, the labs aren't capable of meeting these Tier 1 objectives, although TACO allows for Tier 2, Tier 3 evaluation, the underlying premise in all of these programs, from a consulting side, is we must define the extent of contamination to the most stringent objectives published in TACO before we can evaluate the risks associated with those exceedence of objectives.

And by not being able to reach PQLs that are dictated by TACO or the Tier 1 objective dictated by TACO, that essentially puts the process to -- brings the process to a grinding halt because the consulting industry has no option after that.

That's something that was brought up in testimony previously regarding groundwater ordinances. And the item someone else offered testimony about limiting groundwater investigation areas that have groundwater ordinances, and essentially the Agency indicated that that's not possible because the extent must be defined to the most stringent Tier 1 values in order to use the options available under TACO to address those exceedences.

MR. DUNN: If I may address that. Actually TACO says you have to find the extent of contamination. It does not say what remediation objective you define it to. And I think in the Site Remediation Program, and I will refer back to my pre-filed testimony, when we have a compound, there's only a number of -- a small number of compounds that we have an issue with or that there is an issue with. If it's one of those compounds, there's a number of ways in TACO that can be used to address the compound. And that's already in my pre-filed testimony as far as whether it be pathway exclusion, using barriers. You can also use the Tier 2 route or the Tier 3 route.

So from my standpoint I don't think we make anybody go out

there and automatically say you have to go and define the extent of contamination to a Tier 1.

MR. TRUESDALE: I have another comment about that. And specifically in the groundwater injection exposure route, Section 742.320(d) says for any area within the measured and modeled extent of groundwater contamination above what would otherwise be the applicable Tier 1 groundwater remediation objective, that's one reference to the Tier 1 objective. There are others for the soil in here. So the implication of TACO is, in fact, that you must define to Tier 1 before you can address the risks over and above those Tier 1 objectives.

MR. RAO: Mr. Truesdale, I have a question. In your experience have you had problems with dealing with these kind of issues?

MR. TRUESDALE: We've had problems with PQLs in the past and detection limits because of matrix interferences that did not allow a laboratory sample to get down to a Tier 1 objective in order to find that, yes.

MR. GIRARD: So when you have those problems, how did you deal with it?

MR. TRUESDALE: In most cases it requires extensive re-sampling. In some cases we -- in most cases it's presented to the Agency whether or not they will accept that particular concentration as -- as defining extent and many, many cases that

I'm aware of we still have ongoing negotiations with the Agency regarding how do we define extent of contamination in those cases. So there's additional sampling that's conducted, more negotiation with the Agency. So essentially in -- I would say the two cases I can think of off the top of my head there's still ongoing negotiation with the Agency how to define extent.

MR. RAO: So do you generally follow some of the options or alternatives Mr. Jarrett has stated in his pre-filed testimony when you come across these kind of situations?

MR. TRUESDALE: Right. I mean, my experience with the SRP program has been different. If we don't have the extent defined, and the LUST program as well, if the extent's not defined, there's been testimony in previous hearings about that. If you can't show where your extent meets the Tier 1 residential objectives, you can't essentially use that, if you just went to a Tier 2 objective at the property line. You don't know that the off-site residential properties are adequately protected from the risks associated with any exceedences of those Tier 1 residential objectives under TACO.

So in order to qualify the risks associated with contaminates under the premise of TACO, everything has to be defined to the most stringent objectives in order to see how those contaminants relate to the exposure pathways that are present.

After that's done, then you can use those methods under TACO to eliminate those exposure of pathways, but first and foremost the exposure to pathways have to be identified. That's pretty much it.

HEARING OFFICER MCGILL: If you could just identify your self. Did you have a question?

MR. WALTON: I want to expand on the previous testimony.

HEARING OFFICER MCGILL: Okay. Why don't we swear you in pleas.

(The witness was sworn by the reporter.)

MR. WALTON: My name is Harry Walton. I'm a consultant through the environmental regulatory group. I'm also the SRAC representative of Illinois State Chamber, and I'm the former chairman of SRAC. I've been involved in this process from day one. I was involved in the legislative development of Title 17 that set the policy for TACO. It set the policy at the receptor. Compliance with TACO is measured at the receptor.

Now I think we're getting confused here. I'm getting confused. TACO is the process by which we tell what the risk levels -- the acceptable risk level is, is a theoretical -- Tier 1 is a theoretical series of calculations that says these concentrations for the State of Illinois on a general basis are protective at the point they're measured at the point of the receptor.

The methodology -- TACO does not stand alone. TACO has to be implemented by RCRA, SRP and the LUST program. Those are the programs that tell how we collect samples. They tell us the methodology by which the samples were collected.

In the early SRP regulations we had to have sampled analysis plans. It's very expensive to generate or replicate, so to mitigate that one of the early 2000 rulemakings we went to the certified laboratory approach that was accepted by the regulated community.

We've always had problems with matrix interference and such as that where we don't achieve Tier 1 method -- Tier 1. We accept that. But we have to have Tier 1 and numbers.

An ADL to me is a remedial objective that had to be based on the ability to detect it and quantify it. It's a number. It's our job as consultants to collect sufficient data to determine the extent and nature of the contaminants relative to the program in which you're in.

It's different on the LUST program for the extent and nature of contaminant to the SRP program. Now the SRP and RCRA are very similar. The site drives the methodology. The site drives how -- how you assess the site.

For example, the site is in Chicago. I've got lead. I have monitoring data from my site that tells me that I exceed the Tier 1 groundwater sample. I then take my site specific data and

use a calculation that tells me how far down gradient do I have to go to achieve Tier 1, how far down gradient do I have to go to make sure if somebody put a well at that point, I meet the Tier 1 objective. I don't have to characterize that with actual data. I have to predict that. And our predictions are very conservative. TACO has a very conservative set of regulations and processes. We have to have add -- again, I said at the previous hearing, we have remedial objectives.

When we get a comprehensive release from a site, we know that based on the site data and the conditions of this site, there's no risk to a receptor at the 10 to minus 6 risk level. That is our typical goal. Either of our discussions about 10 to minus 4 to 10 to minus 6 range is previous. That is Superfund. Those are acceptable rates for a Superfund. Illinois our acceptable risk under Tier 1 and Tier 2 is 10 to minus six. We're much more conservative.

When somebody collects a sample, we talk about matrix interference. And I agree the laboratories can't win on this. They have a problem. Real world situation is, if you have a matrix, you're going to have contaminants you can't quantify because it's a dirtier sample. But yet that data has to be put through a conservative process that's excluded. You take it off the table. Just because we can't quantify it, based upon the conservative nature of TACO and the need to be protective at the

receptor at 10 to minus 6, we had to take it off the table, that is, Tier 2. And Tier 2 has a lot of these different options to predict off site such as that. Then we also have the Tier 3. Tier 3 can be the simplistic approach, or as Tom alluded to, the 10 to minus 6, 10 to minus 4 quote Superfund analysis.

So remember TACO is contaminant by contaminate. When you go to a Tier 3, 10 to minus 4, 10 to minus 6 range you evaluate all contaminants. It's the Superfund approach. So this TACO process is a remedial objective. All the violence on detection limits and all those things are under the table. I've seen under the table literature by the LUST regulations, the SRP regulations and the RCRA regulations. Those -- those are taken through your development of work plans with the Agency that there are approved.

In the early days of the SRP, we tried to develop a set of regulations that would be more prescriptive to tell more people, give more guidance, but the problem was due to the site specific nature of the -- the site themselves were variable, the contaminants were variable, the risk receptors were variable. We wanted a process where one would develop the protocol and the interior site based upon the site condition.

We heard a lot -- I'm really getting confused and frustrated by all this techno crap stuff. I'm not a laboratory person. I like the concepts. We have a broad set of concepts on

this TACO today to finally -- receptors are not exposed to risks greater than 10 to minus 6, and that's a point, you know, and the ADL is the best number we have at this time to achieve that. That's the end of my comment.

HEARING OFFICER MCGILL: Why don't we go off the record for a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: Mr. Walton's testimony there were several hands up. Are those -- Mr. Thomas, did you have a question for Mr. Walton or follow-up testimony?

MR. THOMAS: I wanted to address his comments.

HEARING OFFICER MCGILL: Okay. Go ahead.

MR. THOMAS: I think part of the problem that we have is we have chemists and laboratory people trying to understand engineering and we have engineers trying to understand chemistry and it's causing a lot of confusion. You know, I talked with Harry at the last hearing about some of these issues, and one of the things I think -- and to use your own example about the lead detected at a site, the problem is we're unable to detect lead, in your example, at the TACO objective. We don't know if it's there or not. We can't get -- That's the one thing, we can't get past that simple issue of there are specific target analytes that we can't even detect at the TACO objectives for you to make a decision on where to go with it. And that --

MR. WALTON: I can make a decision. You give me a concentration, I can predict -- I can predict the concentration to Tier 1. I predict it. Then I restrict the receptor to that point. That's all part of the Tier 2 under TACO. All I need is the source concentration and the hydro generalize the characteristics of the site and I can predict very conservative models that tell me how far down gradient I have to go to have a safe receptor. That's routinely done.

MR. THOMAS: And that's my basic understanding of TACO and how it's all done. The question we have is why -- why does there -- why is there ADL that exist for some analytes and not others? Why is it this big mystery that when you submit a sample that for X group of compounds, we can tell you what's there and for another group we can't and there's no -- EPA does not want to address those issues. You know, I really -- I understand that this whole ADL issue was not part of the rulemaking.

I appreciate Mr. King offering to have a work group, but we've asked for a work group since 2002 to address these issues. This is our opportunity to say, look, this is a big problem out there. We deal with these samples every day. We got samples coming in from all kinds of programs within the State of Illinois and they all reference TACO, every single one of them. And this is something -- and I don't understand the costs. I don't know what the costs are to do all this modeling and this other

investigation that Mr. Truesdale was discussing. I'm sure there's substantial cost in doing that. And that's why from the laboratory's perspective we would like those ADLs addressed.

There was a reason -- The EPA sought that there was need to address ADLs for some compounds. We're just saying we'd like them to address ADLs for other compounds that they know they have a problem. And it's not a matter of dirty samples that we have matrix inference. We're talking about pristine, clean samples that we can't tell you if they meet the TACO objectives.

So that's something, you know, I mean, if the -- if the rulemaking comes to a point where TACO is stripped of all its analytical requirements, I think that would be fine as well. I made that comment last time. Perhaps TACO is not the place to have ADLs since they're -- since they apply differently to different programs. You know, that's something that we would support and remove it from -- remove those requirements from TACO and put them where they belong and make them more specific in the other regulations.

MR. JOHNSON: But you think this rulemaking is the appropriate place to make that decision?

MR. THOMAS: Well, it's our only opportunity. Like I said, we submitted comments when SRP was out for revision. Mr. Dunn asked us to provide, as an association, you know, some comments with regards to specific problems. We did so. And one of our

recommendations was to form a technical committee to review this type of stuff. So we've been talking about it for years and, you know, if there's another means for us to get that addressed, I'd like to know what they are. So it seems to be the best shot.

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

(A discussion was held off the record.)

HEARING OFFICER MCGILL: We'll go back on the record. Thank you.

MR. RAO: I have just a few clarification type questions for Mr. Thomas based on his testimony. Maybe it won't affect the big picture. Maybe it may. At page five of your testimony you note that TACO risk based remediation objectives and ADLs as well as all USEPA MDL, PQLs/EQLs are all on wet weight basis. Could you please explain what you mean by TACO remediation objectives are on a wet weight basis? Do you mean to say that the analytical results that you obtain in the lab are in a wet weight basis or the numbers that we are -- have listed in the rules are on a wet weight basis?

MR. THOMAS: Well, when the methods that we use reference wet weight versus dry weight, it's a simple matter of accounting for the percent moisture in a sample. When you're analyzing a sample as is, meaning -- and this only applies to soil samples, not to water. When you're running a sample as is, you're taking

the sample and you're taking an aliquot of that sample and you're going right to your preparation procedure for analysis. That's considered an as is wet weight basis. The result you get off your instrument is on a wet weight basis. You need to convert that result by determining the percent moisture on the sample and then applying a correction factor, a dry weight factor to that final result to account for the percent moisture, then you have your dry weight result.

So it can only be done when you're accounting for the actual sample's percent moisture. It has to be done on a sample-by-sample basis. So when these -- when the remediation objectives in TACO are established is these risk based statistical values, they're not on a sample by sample accounting for the percent moisture in a real world sample. They're theoretical. So that's why they are -- that's why they're considered to be as is.

MR. RAO: But how does that pose a problem? You know, you do your conversion. You get your dry weight number and you compare it with the remediation objective. That's what the rule says. Do you see any problems with that?

MR. THOMAS: If the compliance objective or the ADL is set at the lab's lowest concentration that they could report and for sake of argument, let's say it's a quantitation limit, whatever limit is, the value that the laboratory determines. If they're

forced to go as low as they possibly can with an analysis, any additional correction factor applied to the final value is going to raise that reporting limit. So if a method says you can only detect down to one, which turns out to be the ADL, which turns out to be the lab's lowest reporting value, if you have a factor that you have to apply to that level of one for, you know, a no detect value, you're going to raise that value up to 1.2 or something or 1.1. It will be a -- it will be a higher value. This mainly is of concern when there's a no detect value at the compliance objective.

MS. GEVING: And a problem that can be overcome by using a different method than SW-846?

MR. THOMAS: It would be method-by-method specific. But the problem is universal whenever you're being -- whenever you're pushing the level of detection and level of reporting down to meet that level of detection. Pretty soon you can't report any lower. And accounting for the moisture will raise that reporting limit.

MR. RAO: But that should not cause any concern for the lab, right? If there's any argument to be made, that should be the consulting engineer who has to make the argument to the Agency if there's any problem?

MR. THOMAS: The only way it becomes a problem for the lab is when the engineer calls and says you didn't meet the TACO

objectives.

MS. MOORE: That could be a problem.

MR. RAO: Then it goes back to your original concerns about some of these ADLs and, you know, what's achievable?

MR. THOMAS: Yes.

MR. RAO: Thank you. I also have a question about your additions to allow these performance based systems. Do you believe right now as TACO stands that somehow, you know, are you prohibited from using any of these performance based methods, that the rules prohibit you from doing that?

MR. THOMAS: I think that's one of the -- one of the things that's not clear in the -- in the rules and that is which specific method can you use. If you -- Which is another reason why we wanted the incorporation by reference to be more specific and for there to be some reference back to those incorporations. To simply reference SW-846 would mean to me that you want a laboratory to use a method out of that manual. It wouldn't allow a lab to use another method, even a method that was a performance based method, that had the same level of quality, perhaps lower detection limits or what have you.

MR. RAO: Have you had any discussions with the Agency as to whether you would be allowed to use these other performance type methods?

MR. THOMAS: With the Agency we've had some discussion with

regard to certification issue and the difficulties of accrediting a laboratory to a non-specific method. Most labs use some type of performance based system when they're running these analyses. The objectives that are listed, for example, the PAHs which we've talked about. Mr. Hornshaw in his testimony had mentioned that the Agency required the use of a -- of a alternative method, in this case 8310, to achieve the lowest possible detection limit for the carcinogenic PNAs. And that's -- that's a method that there's a lot of laboratories that don't use that method. They modify the existing 8270 method which has higher detection limits. They've made modifications to that method to be able to achieve lower detection. I would consider that to be a performance based approach.

MR. HORNSHAW: I might add we accept Method 8270 in selected ion monitoring.

MR. RAO: Mr. Truesdale had a question.

HEARING OFFICER MCGILL: Do you have any follow-up? If you just go ahead and state your name again.

MR. TRUESDALE: Joe Truesdale. I think just in response to what Mr. Walton said with the ADLs. We do have to have a number as he mentioned at the end and we -- what he says we have the ADLs, but what Mr. Thomas is alluding to we don't necessarily have these ADLs. If their laboratories can't meet these ADLs, then we don't have them. And from the standpoint of determining

the extent from a model or measured standpoint, even using the modeling under TACO, one of the provisions is determining the source width, which is defined as the width of groundwater at the source which exceeds the Tier 1 groundwater remediation objectives.

In both cases I mentioned that's where our problems lies. We can't model it because we don't know what the source width is because we haven't it down to a Tier 1 objective perpendicular to the predominant flow direction. In that case you cannot model --

HEARING OFFICER MCGILL: I'm sorry. Perpendicular to?

MR. TRUESDALE: Perpendicular to the predominant groundwater flow direction.

HEARING OFFICER MCGILL: Thank you.

MR. TRUESDALE: So there are issues. And once again, it -- in TACO it does refer to the Tier 1. So inherently, although there's been reference that SRP and so forth do not require identification to Tier 1, the implications throughout TACO is you must define to Tier 1 in order to use these options.

MR. JOHNSON: Well, all this talk about TACO.

HEARING OFFICER MCGILL: I think at this point we will take a break for lunch. Why don't we start up again at 1:45. I've got about five until one. At this point we'll go off the record for lunch.

(A lunch break was taken.)

HEARING OFFICER MCGILL: I'll just mention briefly Mr. Thomas earlier you had inquired about if not in this rulemaking docket how could you present your concerns or -- and I just -- I'm not suggesting this for you, but I just want for you to understand that any person can propose rule amendments under Section 28 of the Act. Again, not recommending that, but I just wanted you to know and we'll see how this all plays out certainly in this docket. But I wanted to answer your question.

MR. THOMAS: I appreciate that. Most of the people dealing with some of this stuff are all doing it volunteer with their business. And our association is all volunteer run and we don't have any kind of representation and it's real hard.

HEARING OFFICER MCGILL: Sure. We welcome your participation in this rulemaking proceeding. With that, when we took our lunch break, there were a couple of people who had their hands up who either had questions or were interested in testifying. And we're generally here at this point in the proceeding Mr. Thomas is testifying, the Agency had some questions for him but as the subjects are changing we're allowing others to chime in. Anyone have a question or want to testify at this point? All right. Seeing none, I think we'll just continue with the Agency's questions for Mr. Thomas.

MS. GEVING: I believe our next question is regarding page six of Mr. Thomas's testimony where he states that for many of

the drinking water methods and non-standard SW-846 methods there are no IEPA accredited labs and Mr. Turpin would like to add some remarks to that.

MR. TURPIN: I first had a question about the tables on page 7 and 8 of Mr. Thomas's filed testimony, a list of compounds that ADLs or remediation objectives are difficult to meet using common methods analysis. I had a question about what are common methods of analysis. And beyond that the specific compounds were -- are there problems meeting them using the specific methods designed for these compounds or is the problem with you -- with using the general methods, the 8260 and 8270?

MR. THOMAS: The common -- I would consider a common method of analysis to be any of those methods that are listed in the SRP. Method 8260, Method 8270, 8081. Those are three common methods for volatiles, semi-volatiles and pesticides.

MR. TURPIN: Okay. And then in response to the statement on page six that for many of the drinking water methods and non-standard SW-846 methods there are no IEPA accredited -- I was quoting from page 6 from many of the drinking water methods and non-standard SW-846 methods there are no IEPA accredited laboratories in the State of Illinois. Again, non-standard is not defined. But I did a quick -- or had the staff do a quick query of a selection of what may be considered non-standard methods. And we have laboratories -- I have eight methods here

that some more obscure than others. We didn't find any method that had no laboratories accredited. For three of the methods all of the laboratories were out of state, and for five of the methods there were laboratories within the State of Illinois. But in all cases there are Illinois accredited laboratories available to perform these non-standard or specialized methods.

HEARING OFFICER MCGILL: Can I just follow-up. You had started off with a two-part question. I wasn't sure the second part was answered. When you asked about the meaning of common methodologies and then you had a specific question for those listed constituents.

MR. TURPIN: I guess I made an assumption that when he said that the common were essentially 8081, 8260 and 8270 that that applied to the table that those detection limits were -- could not be reached with those methods; is that correct?

MR. THOMAS: Yes. The -- I know that there's at least one compound on this list that could probably be detected using 8270 in particular with modification to the method much similar way that PNA compounds are analyzed by Method 8270 modifying the procedure to use selective ion monitoring. But that's the only -- I'm only aware of one just looking at the system. There may be others. I haven't done that investigation. I know there are at least four, looking at them, that I would highly doubt could be modified using the Standard 8270 procedure. They're just too

low of a detection limit.

HEARING OFFICER MCGILL: Thank you.

MR. TURPIN: Well, I hate to speak for the program people, but it's my understanding that it was never the intention that -- that the program be able to be operated only using what some laboratories call routine or common methods. It's understood that there are times in order to be protective of health and the environment that more specialized methods would be needed. But that -- I guess my point is, that if that is the case, then there are labs available that are accredited by Illinois to do those specialized methods.

HEARING OFFICER MCGILL: Thank you.

MS. GEVING: Would the Board like a copy of the printout of the labs that he's referring to as an exhibit?

HEARING OFFICER MCGILL: Yes. I have motion --

MR. THOMAS: If I didn't define how -- what a standard method is, how can they do a search for non-standard methods?

HEARING OFFICER MCGILL: Well, let's take care of this procedural item first and then we'll get to your question. A motion to make Hearing Exhibit 16 a group exhibit, which is a printout of laboratories that are Illinois accredited and which can perform specialized tests.

MR. TURPIN: For selection of specialized methods.

HEARING OFFICER MCGILL: Better said than I. Any objection

to entering this group exhibit as Exhibit 16? Seeing none, I'll grant that motion. And, Mr. Thomas, you had a -- I think a question for the Agency.

MR. THOMAS: Well, I would like -- could I take a look at that before I ask a question?

HEARING OFFICER MCGILL: Sure. Do you an extra one?

MS. GEVING: Yes.

MR. THOMAS: Great. Thanks. Just at first glance of this exhibit there's -- the first three pages include methods where there's no laboratory certified in the State of Illinois for -- I'm cross referencing this list to the previous exhibit from Ms. Hurley, listing the methods that were used in evaluating TACO. And there's one method in particular 8330 that I -- that was used and I don't see any sort which would indicate to me there's no certified labs for that particular method.

The point -- the point of -- that I was making with regards to that there's not laboratories, and I did specify in the State of Illinois, for many of the methods and the non-standard methods that's true. There's not -- there are -- there are several methods and analytes where there's no certified lab in the state. Excuse me.

In the case of one method in particular 8070, there's one lab located in Colorado. That represents the entire scope of the accreditation for the country to run those analytes that may be

performed by that method.

And it goes back to my original point that the -- it may be that the Agency wants to specify the methods and say these are the methods that are required using the methods that we used when first creating TACO and these are the methods that a laboratory should be using every day when they get a sample. That's not reality. And the Agency understands that and the Agency has steps to work around that reality.

But my point isn't that it can't be done. Those -- These methods -- these detection limits and new methods can be brought on line. We can get the equipment. We can get certified. All of that. The problem is that since inception of TACO that's not been the reality. That's not been the norm with routine samples. I don't know if the Agency has any information to support how many times they've received a sampling report that has met all the cleanup objectives where they've gone to labs in California and Pennsylvania and Colorado to subcontract in order to meet all of the TACO objectives. I would guess it's probably pretty rare. But again, back to my point. That's the problem. That's why it needs to be readdressed, re-assessed, ADLs even need to be created or there needs to be some clear cut just like there was in the cas of PNAs. You must follow this method to meet these objectives. It's that important.

HEARING OFFICER MCGILL: And why is it that Illinois labs

couldn't bring these on line and you say would be cost prohibitive?

MR. THOMAS: There could be a variety of reasons. I'll -- For my -- in my own labs a case I can tell you that, you know, I think I mentioned earlier that there's probably only a couple of methods that we're unable, if we wanted to, we would have to purchase some equipment or take some additional steps to pursue accreditation. It becomes a matter of demand. Our customers are not demanding that we meet these objectives using these methods. As soon as customers start telling laboratories here's the objectives we need you to meet, by any means they're going to start driving the industry and the industry will have to start adding equipment, adding new capabilities.

The issue of whether or not it's cost-effective I think is really between the Board and the EPA. If it's required to meet these objectives and there are methods that exist out there, then, you know, that's up to you whether or not you believe it's cost-effective to require that or to assign an ADL that is within one of the standard methods that people are commonly using now and say that's, you know, this is the new ADL from -- from now on that's what's achievable.

MR. JOHNSON: By being within one of the standard methods, you mean it's detectable using -- detectable to that level using the standard method?

MR. THOMAS: Yes. And again my definition of a standard method would be any method that's currently specified in SRP as being a method of choice for the target compound listed in SRP.

MR. TURPIN: I just have one short response in that I believe Jarrett mentioned 8330. I didn't have Ms. Hurley's pre-filed testimony from the previous case and didn't know to look for that method, so I have no information whether there are -- I have no information as to whether there are any labs accredited for that method or not, but I think an assumption that there are none would be hasty.

MS. GEVING: You didn't run the entire gamut of evidence in --

MR. TURPIN: Not the staff selects randomly non-routine -- it's a subjective call what's called non-routine or non-standard and they selected some that they felt were more obscure or less used.

HEARING OFFICER MCGILL: Can the Agency in its public comment maybe run a search as you did for the -- or in the next hearing depending on what you see procedurally.

MR. THOMAS: All the methods that are maybe on this exhibit is what you mean, correct?

HEARING OFFICER MCGILL: I'm not sure how many there are, but the Agency can certainly take into consideration whether they would like to pursue that if you're referring to Ms. Hurley's

exhibit. Mr. Halm?

MR. HALM: Yes. I'm Richard Halm. I'm the general manager of environmental monitoring and technologies. And I'd like to ask a question. There's been a great deal of discussion about MDL, ADL, PQLs so on and so forth. And the question was raised at the January 31st meeting as to whether or not it wouldn't be possible to go back to the source documents that show that the original methods, the detection limits and so on and so forth.

So my question is, is in light of Ms. Hurley's pre-filed testimony coming to light today and in light of fact that Mr. Turpin wasn't even aware of the fact that 8330 was covered under that pre-filed testimony, doesn't that demonstrate the confusion that the regulated community has over the proper application of methods to the different, you know, remediation programs that are supposed to be governed by TACO?

HEARING OFFICER MCGILL: I suppose that's a question. Anybody care to respond to that? I take it -- and if you'd like to get sworn in, I take it you had asked the Agency a question about whether it demonstrates confusion in a regulated community?

MR. HALM: Uh-huh.

HEARING OFFICER MCGILL: Do you want to provide some testimony in that because is the Agency going to respond to that question?

MS. GEVING: I don't know that the Agency's -- I mean, Mr.

Turpin was unaware of something that was in Ms. Hurley's testimony in another hearing that he didn't participate in has anything to do with what the regulated community can do it about it. I see no correlation.

HEARING OFFICER MCGILL: Fair enough. Okay. Mr. Halm, why don't we go ahead and swear you in if that's okay.

MR. HALM: Thank you.

(The witness was sworn by the reporter.)

MR. HALM: Okay. I had come to this meeting today actually wanting to make comments, wanting to provide testimony. And I did not have the opportunity to pre-file testimony, and I apologize for that. So I want to leap right to my conclusion, okay.

I would like to -- I would like to request or recommend, I'm not sure what the appropriate forum is here, by which to do it. The topic has come up earlier today that an ad hoc committee be established between the laboratory industry, interested parties and the engineering community that might care to participate and the Agency to resolve several issues.

First, in those cases where we have detection limits which cannot be reached by using the quote/unquote commonly available methods that are employed by accredited labs today, that this be examined and a recommendation be made to the Pollution Control Board with regard to whether or not alternative detection limits

should be provided.

Secondly, I would recommend or request that the issue of nomenclature, specifically the confusion that appears to exist with regards to MDLs, PQLs, ADLs and now EQLs be addressed and that we attempt to come to some sort of consensus that can be applied not at an overreaching level but at a level that is specific to the different programs that are administered under TACO, whether that be groundwater, drinking water, LUST and UST, SRP or maybe it's matrix specific whether it's soil versus water versus drinking water.

But I think that -- I think that in doing so that we would serve the purpose of good public policy by getting the regulated community to a point that they are using the health based -- that the risk based factors, where ever possible, to establish cleanup objectives. And in those rare instances when we can't reach those, that there be some alternative that's recommended that the community can cajole around and all agree should be used.

I think that -- I think that if we were able to do this, you'd provide greater certainty to the regulated community. I think that -- I think that the stakeholders in this, whether it's the Agency or whether it's the consultant or whether it's the labs themselves, would have a safe harbor that we could operate in that would give us an opportunity to resolve issues, cleanup sites at the lowest level that we possibly can but still give us

the room that we need to operate, okay?

I want to double back. That's my conclusion. That's what my recommendation is. I want to go back to the things that have been discussed over the course of the last few weeks.

The cleanup objectives today, as I understand them, are health based risk factors. And public policy is served through the use of those factors, okay. Today we have a situation where there's a number of compounds that are used for -- or there's a number of cleanup objectives for compounds that are below the theoretical capabilities of the labs to detect. We are -- we are making that statement within the confines of how the business is being administered by the engineering community today.

My company is NELAC accredited. We were one of the first companies to be NELAC accredited and we probably have a list of accredited compounds that probably are longer than most of the other labs in the State of Illinois. And in many instances I can run --

HEARING OFFICER MCGILL: I'm sorry to interrupt you. Could you explain what NELAC is for the record?

MR. HALM: Brian, you want to explain that?

HEARING OFFICER MCGILL: That's an acronym I take it?

MR. HALM: It's an acronym. It's the overarching body that accredits a laboratory within the State of Illinois.

MR. TURPIN: N-E-L-A-C is an acronym for National

Environmental Laboratory Accreditation Conference, which establishes standards that the State of Illinois follows in accrediting laboratories. And to be accurate, laboratories are NELAP accredited which is National Environmental Laboratory Accreditation Program. Up until this point USEPA had administered a recognition program wherein they examine a state program and recognized that it conforms to the NELAC standard and recognizes our -- the State of Illinois Laboratory Accreditation Program is a recognized NELAP accrediting authority. So laboratories can advertise and use a logo that they are NELAP accredited.

HEARING OFFICER MCGILL: Thank you. You can continue, Mr. Halm.

MR. HALM: Okay. So the laboratory that I worked for has an extensive list of analytes that we are accredited for. But if the engineering community does not ask me to provide it, if it's not used in practice, okay, then the laboratory industry as a whole doesn't seek to fill that niche. It's supply and demand, okay.

So when we -- the methods that are commonly used by the engineering community to deal with TACO, Tier 1, Tier 2 to reach cleanup objectives for the different programs are -- are most commonly 8081, 8260, 8270 and the vast majority of the labs in the State of Illinois are fully accredit for that.

My company is accredited for Method 8151. Nobody calls for it. We're accredited for it and it is, in fact, and it may provide assistance with regard to some of the compounds that are on that list. But if the engineers don't call for it and if they're not willing to bear the cost of us performing that test, there is no demand for the service. If there is no demand for the service, then the labs don't choose to provide it, okay.

So we asked in the January 31st, meeting for the list of compounds where there was no ADL. That an ADL be established. It was -- that request was made through Jarrett Thomas on behalf of the Environmental Lab Association.

On February 21st Mr. Dunn filed pre-filed testimony that said there's no need to consider ADLs. And his reasoning for that was two-fold. His first reason was that in 1997 the Illinois Pollution Control Board directed the Agency to use health based risk factors to determine cleanup objectives and, oh, by the way, secondly, if you couldn't reach those health based risk factors, that there was Tier 2. There was modeling. There was Tier 3. That there were alternative programs that were available, okay.

I speak today as the general manager of EMT. My company is a member of the Environmental Lab Association. But I want to be clear that I speak as the general manager of EMT. I personally do not believe that the Illinois Pollution Control

Board intended the Agency to be at a point where they were prescribing cleanup objectives that could not be measured, okay. And it's my opinion that if we are -- that given the practice that we have over 22 years dealing with -- with industry, dealing with consultants, dealing with the regulated community, that if cleanup objectives were based upon the limits of present technology, and if we use the commonly available methods that I believe the more sites could be, you know, taken off the books, and they could be done so more cost-effectively.

And those instances where ADLs were available, we would often reach those ADLs if we knew what they were and the sites would be closed out under Tier 1.

In those instances that couldn't be cleared out under Tier 1, it would now be a smaller group of sites that had to go to modeling, that had to go to additional expense of additional sampling, additional engineer type, additional Agency time by people who have dedicated their careers to this. I think that there is a good public policy and there are good reasons to come up with ADLs in those instances where they're not even when those ADLs would be above the health based risk factors.

There's been very significant discussion with regard to MDLs, ADLs, EQLs, PQLs. The gentleman back here said it before, it gets very confusing. I think we're all confused. And I think there's a similar way to reach the objectives of the public

policy and that would be to take another look at this situation.

Jarrett Thomas brought it up before, the MDL is a statistical measure. It's not cast in stone. It's based upon pristine conditions that -- that don't mimic real life. The samples that my laboratories get, they stink. They, you know, they're dirty, even sometimes when you're getting what appears to be clear water.

We run into problems where one analyte of interest will interfere with another. We run into problems where things that we're not even looking for interfere with the analyte that we're trying to measure. And so the method detection limit is based upon a theoretical norm in a pristine condition. And when you try to apply that to the real world, the numbers change and you frequently end up a situation where you cannot reach the method detection limit.

If I was given my druthers, I would use different measures, okay. And I understand that there's been a great deal of work that's been put in to creating the rules and regulations that exist within TACO and the different remediation programs today. So I would request again that if it was possible to do so, whether it be through a subset of a rulemaking or whether it be as an independent group, that we make commitment jointly to tackle this issue and to try to come up with some sort of rules by which we all can operate within that safe harbor. I thank you

for your time.

HEARING OFFICER MCGILL: Thank you. Any questions for Mr. Halm while we're at this point in the transcript? Seeing none, did the Agency have any further questions for any of the witnesses, Mr. Thomas or otherwise?

MS. GEVING: We do have some clarification and maybe some questions on Mr. Thomas's testimony. I'm going to refer him back to page seven and, Tracey, I believe that you wanted to address something on page seven of Mr. Thomas's testimony.

MS. HURLEY: Yes. Back to the tables, actually looking on page seven and eight.

HEARING OFFICER MCGILL: Page seven and eight of Mr. Thomas's pre-file testimony?

MS. HURLEY: Yes. His -- The table of chemicals that have Class 1 Groundwater Remediation Objectives he said they have trouble meeting. The objective listed for Vinyl chloride, Pentachlorophenol, Toxaphene and PCB are based on MCLs established by USEPA. And when USEPA establishes their MCLs, they take a look at not only health based limits but also practical consideration such as treatability and detectability. So I guess I don't understand why there would be a problem meeting or detecting the chemicals that have MCLs. I would like a little clarification on that.

MR. THOMAS: The -- One of the -- one of the issues with

those, in particular, are that -- and can I -- I would like to clarify the term MCL, when you're talking about Maximum Contaminant Level, that's a drinking water term, correct?

MS. HURLEY: Yes.

MR. THOMAS: So we're talking about drinking water limits. If I was using a drinking water method, I would have no trouble meeting those detections. But those drinking water methods are not what's specified in SRP. It specified Method 8260 for Bromoform, Chloroform and Vinyl chloride in 8082.

Now those -- the issued again of the cost effectiveness and the demand for the laboratory services is again what's driving all this. If a customer were to say I need those detection limits achieved, those compliance objectives achieved, we would propose that we use these methods, which would be drinking water methods. They would -- We would then attach a cost with that and they would get back to us and say, well, okay, yes or no. We want you to analyze those or not. And in some cases for ground water we've done that. Not -- And I'm talking, is it 620 again, I'm sorry?

MS. GEVING: Yes.

HEARING OFFICER MCGILL: Part 620.

MR. THOMAS: 620. We've done some groundwater work in our laboratory for that program and the methods that we were asked to use were drinking water methods, not SW-846 methods that are

referenced in SRP and LUST and so forth. So the issue becomes the cost versus the demand. And once we start presenting the cost to do some of these other compounds using alternative methods, then the cost goes up and then the customers usually come back and say, well, you know, we haven't been achieving these limits ongoing and we aren't going to require it. In most cases we're not being asked to run alternative methods to reach those objectives by our engineer -- engineering customers.

HEARING OFFICER MCGILL: The Agency -- I'm sorry. Mr. Thomas, did you want to add anything to your testimony?

MR. THOMAS: The issue again of cost-effectiveness is something that I was -- when we were discussing the different methods. And I keep referring to SRP because SRP is really the one place where I go in the Illinois rules and say here's where it links a specific method to a specific analyte. In the case of some of these they may specify, you know, different methods.

But it's also -- it's also a factor in the LUST rules, under the current LUST rulemaking, there's costs associated with the different -- reimbursement, maximum reimbursement amounts associated to different analyses. And for semi-volatile organics and for volatile organics, the cost that are listed in the LUST rulemaking, I have the R 04-22(A) and 223(A)[sic], the costs that were assigned to semi-volatile organics and volatile organics were again using methods that are common in SW-846 and specified

in SRP and that are mostly used by labs. They did not take into account any additional methods that were as in Ms. Hurley's testimony, or any other low level methods, some drinking water methods or anything like that. Those -- those costs in the proposal for maximum reimbursement amounts was based on what's commonly being done in this industry. What's commonly being done is not achieving the objectives.

As soon as it becomes a -- I hate to use the word requirement because a lot of us, I think, are confused that it isn't already a requirement. But when it becomes -- when the demand starts to be that the engineering community is requiring laboratory to use specific methods, then we're not going to see this issue addressed.

HEARING OFFICER MCGILL: The Agency have any further questions?

MS. HURLEY: Also on page seven of Mr. Thomas's pre-filed testimony he questioned the soil ADL for N-Nitrosodi-n-propylamine.

HEARING OFFICER MCGILL: And this is -- you're reading from the pre-filed testimony of Mr. Thomas on page seven?

MS. HURLEY: Seven.

HEARING OFFICER MCGILL: Thank you.

MS. HURLEY: It's questioning the soil ADL appears to be in error because it's the same value as for groundwater. That soil

ADL, ADL from soil and groundwater, was based on Method 8070(A) and the method lists the MDL and then also a range of multiplication factors and we chose the lowest factor four, multiplication factor four, which results in EQL of 0.0018 milligrams per liters as used as the ADL for ground and water and 0.0018 milligrams kilograms of soil, so it's not in error.

Also, I have a clarification to Mr. Thomas's pre-filed testimony. Page eight of his testimony is responding --

MR. THOMAS: Can I respond to that before --

HEARING OFFICER MCGILL: Yeah, I think she's sworn in and that was her testimony if you -- There wasn't a question, but if you have counter testimony to that.

MR. THOMAS: I can check the method but the act of preparing a soil sample versus analyzing a water sample, there's a concentration factor. If you go and check any of the other ADLs, for example, the other one I list is Pentachlorophenol with an objective of .03. If you look at the groundwater objective, it's .001. There's always going to be an order of magnitude higher for a soil and I don't want to say always, but when you're -- when you're doing a water sample and doing a soil sample, soils will almost always have a higher detection limit. And that's something that goes along with the prepping of the sample. You don't have the same prep in an analysis that you're doing with the water. Waters commonly have lower detection limits than

soils do.

The other thing I guess I would like to respond to again is the use of the term detection limit. The detection limit is something we -- we -- we believe should not be used in creating these limits.

HEARING OFFICER MCGILL: Thank you.

MS. HURLEY: I think it was on page eight of Mr. Thomas's pre-filed testimony. He's talking about the Class 1 Groundwater Remediation Objectives that are listed in Appendix B Table H. I think that's supposed to be Appendix A Table H; is that correct?

MR. THOMAS: I believe so, yes.

MS. HURLEY: Okay. Table -- Appendix A Table H contains chemicals in Tier 1 Class 1 Groundwater Remediation Objectives be the one in one million cancer risk concentration. And Mr. Thomas's questioning the fact that Table H includes ADLs that are lower than the groundwater remediation objectives for some chemicals. And that occurs because some of the Class 1 Groundwater Remediation Objectives are based on USEPA MCLs, for example, carbon tetrachloride.

MR. THOMAS: Drinking water MCLs is what you're saying? Drinking water?

MS. HURLEY: There be would applicable to drinking water MCL I was wondering about. I don't have anything else.

MS. GEVING: The next question we had is also on page eight

and, Mr. Dunn, I think you wanted to ask this question. But it's regarding the reference to the ASTM D2974-00. Greg, did you want to ask that question?

MR. DUNN: Mr. Thomas, how many methods are identified in the ASTM D2974-00 Method? You specified in your pre-filed testimony that you said Method C at 440C. I was kind of wondering why that method was specified.

MR. THOMAS: I believe there's four methods A, B, C and D. Inside the method itself there's four different options on how to analyze samples. And I'd have to defer someone more technical to answer -- Greg could probably answer the question as to why C.

HEARING OFFICER MCGILL: I'll just remind you you're sworn in.

MR. PRONGER: Greg Pronger responding to the question. That is simply the method applicable to the measurement trying to be made. If go through ASTM, it specifies for soil for this purpose -- ASTM that method it refers you to C for the measurement that is being made. C is just the appropriate protocol to follow. If you read the document, the point being in trying to specify it is just so there's no confusion if it's Option A, Option B, Option C as to what maybe everybody's measurement -- comparability of data. If you focus on C, then you're ensuring that we're running the same protocol.

MR. DUNN: The other methods that are identified in the

ASTM methods, do they have different temperatures then?

MR. PRONGER: Yes.

MR. DUNN: As far as Mr. Thomas's proposal on page eight of his pre-filed, I believe the Agency agrees with leaving in method C at 440C. I think that is the appropriate method for -- the Agency believes that is the appropriate method. However, using a factor of 0.5 and 0.58, the Agency still contends that we don't want to set a specified factor, conversion factor, in a regulations. We want to allow some flexibility to the consultants to use something other than conversion factor.

Now with that said, I believe at the last hearing I stated that we would widely accept 0.5 and 0.58 conversion factor without any additional requirement on the consultant to give us a reasoning why for that conversion factor. But there could be instances where a conversion other than 0.5 and 0.58 could be used. Therefore, we contend, still contend that a factor should not be added in that -- in that notation.

HEARING OFFICER MCGILL: Go ahead, Mr. Thomas.

MR. THOMAS: I would ask that if that were the case, then could you add language just stating here's the common factor? You can use any factor you want, but it just has to be explained, and which I believe is your requirement anyway, but I don't know that's specified anywhere in TACO or in the individual programs. Could you make your requirement specific in here?

HEARING OFFICER MCGILL: Does the Agency want to just take that under consideration or do you have a response now, or both?

MS. GEVING: We'll take that under consideration.

MR. THOMAS: To give the Board a little idea of how the laboratories sometimes become the expert in these interpretations of TACO, usually what happens is an engineer will bring us a sample and say run FOC, you tell us what factor to use. So, you know, laboratory -- that's typically how it goes. It's -- I don't know want that -- I don't know that there's a whole lot of decision going on in establishing these FOC factors. It's usually they defer to the lab to say what kind of factor. Then we report that value out and then they run with it. And it's really not a lot more decision. I think it's good to leave it open to them, but it ultimately falls on the laboratories having to make a determination of what factor and what we know about the factors in this. It's an engineering concept.

MR. GIRARD: Well, but is there a problem with leaving the decision up to the lab?

MR. THOMAS: I don't feel comfortable with that. Again, it's -- I done a lot of research into FOC in trying to assist the Agency in making this a more consistent requirement. And the -- the factor of .5 and .58 seems to be very consistent with what other states are doing. They -- There's other states that specify use .5. Again, it's more -- it's an engineering concept.

It's an engineering calculation that -- where that value is attended. And that's -- if the laboratories are left up to deciding it. I'm sure we could. I don't know what the ramifications are of that from an engineering side. Maybe someone technical can respond to that.

MR. PRONGER: For clarification --

HEARING OFFICER MCGILL: If you could speak up.

MR. PRONGER: Greg Pronger, I apologize for not talking loud enough.

HEARING OFFICER MCGILL: Thank you.

MR. PRONGER: The factor is related to that actual soil chemistry. And generally speaking, the laboratory does not have information on the type of soil it is. We may or may not have location so we are ill prepared to determine the factor. So us determining the factor, it's -- it's -- the engineer has that information.

What most labs are doing is putting on the result and notating what factor was applied. But the lab is not the one to make that decision. We do not have information to determine what's the appropriate correction factor.

MR. GIRARD: Well, doesn't this reference here Nelson and Sommers (1982), does that specify how to make the decision whether it's 0.5 or 0.58?

MR. PRONGER: No, they talk about it's based upon the type

of soil. It's based upon location. I'll defer to Mr. Truesdale. He's an engineer with a little more background on soil chemistry side.

MR. TRUESDALE: The factor that's widely been used is known as the Van Beelman Correction Factor. It is specified in Nelson and Sommers. It's one they refer to. They list several other optional studies that give different varying organic carbon concentration, but the principle factor of correction that's used is the Van Beelman Correction Factor. It's actually -- The .58 is the multiplier. You don't actually do it that way. You divide it by 1.74.

HEARING OFFICER MCGILL: Could you spell that Van Beelman? Do you have it there?

MR. TRUESDALE: V-A-N B-E-E-L-M-A-N, I guess.

HEARING OFFICER MCGILL: I'm sorry. I thought you had it in front of you there as a reference.

MR. TRUESDALE: No, I'm just pulling it out --

HEARING OFFICER MCGILL: That's in Nelson and Sommers?

MR. TRUESDALE: It is within Nelson and Sommers, correct. And Jarrett is correct, that unfortunately a large majority of the consultants in the industry are not aware of the specifics related to a lot of these analytical methods, and they do look to the laboratories in a lot of cases to -- for guidance on what to use. And I agree with Jarrett too, it's probably -- or I could

agree with Greg it's probably inappropriate for them to make that determination because they don't have the type of information that is required to make a determination as to what correction factor should be used if it's outside of a standard that's used.

MR. GIRARD: Well, are you afraid that there are liability issues involved with the lab making that kind of determination?

MR. THOMAS: I would be. I would.

MR. TRUESDALE: I mean, from my standpoint I wouldn't have any reference to their liability issues.

MR. THOMAS: In a very general way, my understanding that of this factor is that higher or lower, whatever result ends up coming, will affect the level of which the site has to be cleaned up. So if we make a wrong assumption, we could be saying that the site only has to be cleaned up to a certain point and I don't know if that would be correct. So I'm afraid there would liability associated with.

MR. GIRARD: It seems to me there's another side to this and that is the possibility that they want the numbers run and then pick out a factor that makes it fall in the right range. It doesn't sound like a very honest process to me. If you don't have a determination being made by the people in the field, who tell you what kind of characteristics then have to determine what kind of factor you use, is that part of the problem?

MR. THOMAS: I would agree.

MR. GIRARD: You feel that the rule should specify and tell you what those environmental characteristics are to determine what factor you could use; is that correct?

MR. THOMAS: The main purpose for me listing the range is because that's the range that's most commonly used now. I don't know many -- Greg could speak to how many times they get an FOC factor on site of that range and the engineer has to justify that. But my experience has been that the engineer wants to see when they ask a laboratory to test for FOC, they want a final corrective value with the factor. And in -- when we first started doing FOC analysis in Suburban Laboratories, we didn't report a factor. And we just -- we assumed that the engineer was going to apply the factor, whatever factor is appropriate, before we understood the requirements.

And I believe a lot of data went to the Agency that was uncorrected. And the Agency started seeing a wide variety of results coming from different labs, coming from different engineers. Some engineers would apply the factor before submitting the report to the Agency, others would not. Some labs were applying the factor and not notifying the engineer that they applied a factor. And the Laboratory Association did an extensive survey which we presented to the EPA which outlined just about all of the labs doing FOC in the state and how they were running it at the time, and there was enough variety for the

Agency to say we need to get a little more specific. There was some labs using some certain methods, some were not using Method C as we recommended here.

So it's simply a -- putting the factor in there is simply a means from the laboratory perspective of getting everyone off our back and saying here's what's required. If there's a decision not to specify a factor, then I think the Agency should specify how to come about that factor a little more clearly because I guarantee very, very few people in this industry understood what the Agency meant by FOC when they first proposed it in TACO. It's only until recent, last couple of years, I think, when people finally understood just how to do FOC properly.

MR. GIRARD: Thank you.

MR. DUNN: Just for the Board's information, the Van Beelman factor is identified on page 561 of Nelson and Sommers. That's where it could be found. I actually just had a question for Mr. Thomas. Under the ASTM method for the ASTM D Method 2974, does that method specify a conversion factor in that method itself?

MR. THOMAS: No. I'd also like to clarify that the method, the ASTM Method is not a method for determining FOC. That method is a method for determining moisture, ash and organic matter. That's not FOC. You have to apply the correction factor in order to get the FOC.

HEARING OFFICER MCGILL: Thank you. Any further questions?

MS. GEVING: I just have one more thing and it's a clarification on page nine of his testimony. He states that the Class I and Class II Soil Component the Groundwater Ingestion Exposure Route Values for metals were deleted from Section 742 Appendix B Table B. It appears to be in error that values are still in Table A. I believe we addressed that in our Errata Sheet Number 1.

MR. THOMAS: Yes.

MS. GEVING: And I think if we're going to close, Mr. King has some closing remarks he would like to make if he could.

HEARING OFFICER MCGILL: Before we get to that, did we have any further questions or testimony on ADLs?

MR. TRUESDALE: I have a question or testimony deciding the ADL, other issues within the proposed changes to TACO.

MR. PRONGER: I have one issue relating to ADLs.

HEARING OFFICER MCGILL: Okay. So two other witnesses with questions.

MR. HORNSHAW: We may have a few questions or comments, yes.

HEARING OFFICER MCGILL: Okay. Mr. King, if you think this is a good point of -- you're welcome to go ahead.

MR. KING: I was going to wrap it up once we're done with the whole laboratory issue.

HEARING OFFICER MCGILL: Okay. Mr. Truesdale, I saw your hand first.

MR. TRUESDALE: It's unrelated to ADLs.

HEARING OFFICER MCGILL: Okay. I'm sorry. You had an ADL question?

MR. PRONGER: And this was within the Agency, the utilization of drinking water methods to the program. And it is -- it would be frequently inappropriate to attempt to utilize a method that was designed for a fairly pristine drinking water system for site remediation cases. So where there's been adoption of drinking water methods, those methods are specifically designed for a very clean matrix. And so the -- there's not a general applicability of a analytical procedure that's designed for very clean water to groundwater samples collected around the State of Illinois, around sites that are being remediated, trying to utilize those.

Whether or not we call them ADLs, MDLs whatever the case is, how we're setting that number, utilizing those values within the program, in many, many cases those methods are simply inappropriate for application. I wanted to make that point regarding where we're looking at the values from the drinking water methods and then the method themselves for application to the TACO topic. Those methods are frequently inappropriate to be utilized.

HEARING OFFICER MCGILL: And I'm sorry, they're inappropriate why?

MR. PRONGER: Just because they are designed for a great big matrix. If you're running a drinking water sample, it's designed -- that method is designed for basically tap water. It is not designed for raw water taken by an engineer from next to the site that's being remediated. The level of material within the groundwater that has contaminants, that method is simply not constructed or designed to handle that type of matrix.

HEARING OFFICER MCGILL: Thank you. Dr. Hornshaw?

MR. HORNSHAW: At least one follow-up question, maybe two. Most of the Class 1 Groundwater Standards in 620 are based on MCLs, the drinking water standard. And so are you suggesting that the groundwater standards would have to be changed also?

MR. PRONGER: No. It's just simply that trying to utilize a analytical laboratory has a lot of different tools to make its measurement. If you have the objective set to -- I'll use number one just to have something to utilize here. If it is set to one for drinking water, the method that the USEPA designed to get one in drinking water may not be applicable to a groundwater from the state of Illinois just because of the level of matrix.

We may have to use -- to use two numbers. 515 is utilized for herbicides. 8151 is utilized for herbicides. 515 is designed for water out of your tap. 8151 is specifically

designed for groundwater. So there's fundamental differences in how this sample is handled to deal with matrix. 8151 probably can achieve that same level of detection. It's the appropriate tool in this instance. 515 is not the appropriate tool to pull out of my analytical pocket to deal with a drinking water sample. Does that -- But we're referencing at the same time not just the MCL, but also the method at times and that's a -- we're causing problems when that request comes to the laboratory, 515 is the wrong number to be asking for.

MR. THOMAS: Can I respond?

HEARING OFFICER MCGILL: Dr. Hornshaw, do you have --

MR. HORNSHAW: Let him go ahead. I think I need to think here.

HEARING OFFICER MCGILL: Why don't we go off the record for just one moment.

(A short break was taken.)

HEARING OFFICER MCGILL: I think where we left off, Dr. Hornshaw, did you have a follow-up question or testimony?

MR. HORNSHAW: Well, yeah, and I just have to say I'm a little bit confused on a couple of examples. A whole bunch of public water supply systems in Illinois utilize groundwater as a water source, and it's my understanding they have minimal, if any, treatment other than chlorination before that water goes into the distribution system, and those symptoms have to monitor

and show they meet the MCLs. So I don't understand why the drinking water methods that are used for tap water, and I assume they're used for the raw water that comes out of the groundwater, why they're not able -- why they shouldn't be able to use the drinking water methods to show that they're complying with the MCLs.

And then to use the Vinyl chloride example that Tracey brought up earlier in Mr. Thomas's list of hard to detect compounds, my unit looks through an awful lot of analytical data when we're reviewing Tier 3s and we routinely see reporting limit of .002 micrograms -- or milligrams per liter for Vinyl chloride. And whether the labs are using a drinking water method or some other method, they are seeing down to that concentration. So I don't understand why drinking water methods shouldn't be used for what are supposed to be clean water samples that are submitted to the Agency to show that objectives. Does that make sense?

HEARING OFFICER MCGILL: There are a couple of people that I think wanted to respond, and I saw Mr. Truesdale's hand up first.

MR. TRUESDALE: Municipalities wouldn't typically site a potable well extraction well field in an area that has soilability limit, level of concentration for volatile organic contaminants. That's the problem. It does haven't the matrix interferences that they're referring to in a contaminated ground

water sample. It's a potable resource groundwater that -- it may not need treatment because of the location where it's at. They don't put a well where the water is going to be influenced by those type of matrix inferences associated with contaminant concentrations.

MR. HORNSHAW: But then they're using drinking water methods to analyze groundwater to show compliance with MCLs. He's saying he shouldn't be using drinking water methods that analyze groundwater.

MR. TRUESDALE: Just a --

HEARING OFFICER MCGILL: You just said he and the transcript is not going to be clear who you're referring to.

MR. HORNSHAW: I'm sorry, Mr. Pronger.

HEARING OFFICER MCGILL: And just take turns giving your responses, please.

MR. TRUESDALE: It's the -- associated with the level of contamination that are present. It's not a, you know, the samples that we collect have a very high concentrations of organic constituents that require the laboratories to address, you know, different matrix interferences. If we're -- if we're only reporting a few constituents and the mixed contaminant plume has 50 organic compounds and we're only interested in reporting five of those compounds, the lab has to get through the background interferences with those other non-target compounds

that are associated with those contaminants that aren't necessarily target compounds in the program.

And water -- in a drinking water situation municipalities site their wells where there's very little impact to the groundwater for potable purpose. It's just not put. It's totally apple and oranges different comparison here. And then on the other side -- from the standpoint of -- I don't remember, it was Dr. Hornshaw's second --

MR. HORNSHAW: Oh, Vinyl chloride.

MR. TRUESDALE: The Vinyl chloride. You mentioned before in your program you require filtering of samples for organic analysis and that's not -- under the SW-846 method.

MR. HORNSHAW: No, I didn't say that. We either say that the people have to use a low flow in-line filter --

MR. TRUESDALE: Right.

MR. HORNSHAW: -- or if they don't want to do that, then they have to do both filtered and non-filtered.

MR. TRUESDALE: Right. So it has a filtering mechanism one way or the other, the in-line filtering or filtered and non-filtered. And that could very well explain why you get concentration at the .002 versus typical SRP, LUST or RCRA sites that don't have those requirements.

HEARING OFFICER MCGILL: I'm sorry. You said RCRA and that's --

MR. TRUESDALE: LUST and SRP. Resource Conservation Recovery Act, R-C-R-A.

HEARING OFFICER MCGILL: Mr. Thomas?

MR. THOMAS: I appreciate your confusion on this issue. It kind of helps me understand where this confusion is coming from on all sides. One of the clarifications that I want to make with regard to what Greg said about the -- the drinking water methods not being applicability for groundwater. If you were to go to the drinking water methods manual and pull out a method and look at the scope and applicability, you're likely to find it's applicable to groundwater and to surface water, but it's in the methods for drinking water analysis. When they refer to -- when we refer, I guess as a laboratory industry, drinking water, we're talking about water you're going to drink and that could come from groundwater, potable water, it could come from groundwater, surface water, a mixture of those things.

When we -- when we look at groundwater in terms of saying that we cannot meet certain limits and things, we're talking about doing them in the context of SRP, LUST, RCRA, from a contaminant, usually in a dirty monitoring well not intended whatsoever for human consumption. And these samples are typically going to have analytes in them unlike a drinking water sample would, so when we're talking about -- we're talking really about two things. When we say drinking water, it's a separate

issue from groundwater. And the methods are totally different.

The drinking water methods, as Greg said, are very, very sensitive procedures. They're meant to detect very minute quantities of a chemical. And when you optimize a method that way and that sensitive, if you have any kind of contamination of what we commonly see in SRP and LUST groundwater samples, you're going to blow your instrument away. You're going to peg your detector. You're going to cause all kinds of problems in the laboratory which is going to result in additional cost and turn-around time, which is the primary reason that the laboratory community in general is opposed to using drinking water methods for -- for groundwater associated with SRP, LUST, RCRA and those type of programs.

MR. HORNSHAW: And I fully understand that for exploratory samples, but for final samples, at least for sites that are seeking a comprehensive NFR, when they're taking a sample that they're trying to show it met all the cleanup objectives, you shouldn't have all those interferences raising your detection limits, at least to my thinking. Because we do see lots and lots of analytical data submitted in support of showing clean, that they're able to achieve most or all of the detection limits that are specified in the rule. That's where I'm having this disconnect with you can't use these kind of sensitive methods when you're getting to the point of trying to say is it clean

enough or is it still dirty.

MR. EASTEP: Can I jump in?

HEARING OFFICER MCGILL: Mr. Eastep?

MR. EASTEP: A lot of sites that I dealt with in the site remediation program recites where they are actually usually the drinking water in that area and that not -- may not be every day but it's certainly not an uncommon occurrence that we go out and sample sites, and at the edge of where we're sampling, those are people in that general area that are actually using the water for drinking purposes.

MR. THOMAS: And that's exactly the reason why I feel the method should be specific. If you -- if the analytes can only be detected using drinking water limits and they're clean samples -- and again as a laboratory I may get a sample sent to me. I don't know what state in the TACO process it is -- they may simple send me a sample and say run it by Method 524. And at that point I understand I have to meet Vinyl chloride detection limits associated with drinking water and away we go. And that may be the data you're seeing coming through. And maybe in those cases the engineer's requiring specific methods and so forth. But in the vast majority of these cases where the methods are not specific, the limits are not being achieved.

HEARING OFFICER MCGILL: Mr. Truesdale?

MR. TRUESDALE: I think one of the things that we mentioned

is the perimeters of the plume, that's where the concentrations are low enough that it doesn't have the same kind of matrix interference -- at the parameter of the plume the concentrations you would be seeing are not subject to the same kind of matrix interference because the level of contamination are then more representative of naturally occurring groundwater or less contaminated groundwater. And the ones that get closed under the SRP are sites that can meet those criteria.

As I mentioned before, if you can't even define where Tier 1 is, it takes much, much longer to get to a point in the closure in the site and you may never find -- or you may never be able to get to a point of, yes, we've got the extent defined out to these limits where we can get down to that objective at a site that is highly, highly contaminant.

HEARING OFFICER MCGILL: Any further questions or testimony regarding laboratory issues ADLs? Okay. Seeing none at this point, I'd ask Mr. King if you'd provide some testimony to that approach.

MR. KING: What I wanted to do was kind of try to frame a little bit of context for the -- for the Board. We've been listening for the last couple of hours, quite a bit of testimony, in exchange on this -- these -- this ADL, but the issues brought up that are related to laboratory programs.

If you listen to that and look at that testimony and just

took it out of context you would think our remediation programs are at a stalemate, but nothing, I repeat nothing, could be further from the truth. The system that we have in place today is the same system that we've basically had for the last eight years other than improvements we've made on a periodic basis with rules before the Board.

Since 1997 we've been processing about 800 LUST sites a year, closing 800 sites a year. We've been closing 150 to 200 SRP sites a year, so we're moving things along. If we have an issue, I mean, in the SRP program right now, we'd have an issue that's holding back closing sites is that we don't have the staffing to process things quickly enough.

We have regular meetings with the site remediation advisory committee and that was the committee that was established by the statute to provide advice to us, advise us on problems they see. We look to them a lot because they're really, as far as we can tell, are really representing the owners and the operators and the remediation applicants for sites coming into our programs. They've never brought this -- the issue that the labs have brought forward today. I think Mr. Walton made a fairly eloquent statement as to why that was not being brought forward.

In -- Just to kind of simplify what he's saying, part of the beauty of TACO is that it's not just a single method of looking at things. It's a methodology that allows different

approaches depending on the site. You have Tier 1 and screen things out. If that doesn't seem to be appropriate, you can use Tier 2 or Tier 3 or you can us pathway exclusion methodologies. So Mr. Dunn's testimony from this hearing wasn't -- he wasn't trying to suggest that we were not willing to consider other changes to the rule. It's just that at this point we didn't see the testimony that the laboratories had presented as justifying us changing our proposal.

We have over the years made -- proposed numerous changes to the -- to the Board. We have really gone through a discipline though of making sure that we understood the problem, that we had a concrete proposal before us and that we went forward based on that -- based on that concrete proposal.

Two of those are we're looking -- we've looked at in this regulatory proceeding, PNAs. That was an issue that the SRAC members brought forward to us, and we worked them over a period of several years making sure that we had an investigation that made sense, we had a regulation that made sense.

The FOC issue was one that there was, in fact, brought to our attentions by the laboratories. We concluded that there was a problem. We needed to make a change. We made a change. They suggested that there -- that there -- it should be made a little more concrete. And so we're willing to take that under advisement and see if that makes some sense to do.

At this point, you know, I'm confused by a lot of the discussion because I'm having trouble following what's occurred, but I think it really behooves the laboratory community as a group to reach some consensus on what they want to do with this. This is one of the things I asked for at the last hearing. I asked for associations to come forward and propose a set of ADLs. They said they didn't have time to do that. I can appreciate that. But I think that's something that really needs to occur, that there be -- that laboratories reach a consensus on what -- as an association as to what they -- how they think these rules should -- should be changed and come forward to us in a concrete way.

We don't have -- I mean, we've got a lot of program responsibility in administering these programs. We can't just be -- be going forward on some vague notion that we need to re-look at things. So again, I would -- just as a conclusion I just would like to challenge the laboratories to work with us to present a concrete proposal that we can react with and work with and have something that's technically justified and then come forward at the appropriate time with additional rule changes as needed to the Board on those issues.

HEARING OFFICER MCGILL: Thank you. Mr. Thomas?

MR. THOMAS: If I could just respond in one regard. We had a discussion in the Laboratory Association about submitting ADLs

and part of -- part of the problem in getting a consensus is it's not as simple as it might sound. And there's a lot of people in our association that feel it's not our place to be submitting to the Agency what the compliance objectives for clean site are.

I mean, we -- we've already submitted, and the Agency has -- already has information with regards to -- to the analytical limitations associated with the variety of compounds. We submitted those as a Laboratory Association and individual labs have submitted those to people at the Agency.

This issue -- We've asked for there to be a committee back in 2002, and this is something that I personally am concerned, you know, just as a taxpayer at this point that sites are getting closed out. Sure sites are getting moved through and closed out because of some clipboard audit, some checklist, well, if the lab detected up here, and as Mr. Walton said, you give me any number and I'll tell you what I need to do to make sure that's not going to impact the health and environment. I'd like to have a little more confidence in the -- in the -- that the analytes of interest are not present.

And the Agency saw fit. They saw -- they figured it was important enough to establish ADLs and the inception of TACO. Mr. Hornshaw in his own testimony stated that they wanted cleanup objectives for ADLs as low as possible to the cleanup objectives even if it required the use of alternative method as they did in

PNAs. They're aware of which compounds are a problem, but they don't want to do anything about it. And from an -- just an analytical scientific background, that just confuses me. If you know what the problem is, you establish ADLs in the past for compounds you thought were problems back then but you don't want to look at new ones today, you want us, the laboratories, to do that, it's not that simple.

And I don't know that it's necessarily the laboratory industry's place to say here's what the cleanup objective should be. I think we have a hard time getting that consensus. May be able to get consensus to say here's our -- here's our detection limits or quantitation limits of an industry averaged out or something, but, I mean, there's flaws with doing that type of statistics too as we kind of talked about.

MS. MOORE: How many members are in your association?

MR. THOMAS: We have about 24 members. I'm only aware of two environmental labs in the state that do soil work that are not members of our association, so we represent nearly every single environmental lab in the state doing this type of work.

MS. MOORE: And have you participated in any of these -- is -- it's SRAC or something, but have you participated in that organization?

MR. THOMAS: I participated in one SRAC meeting with regards to the LUST rulemakings. I was invited there. I asked

Mr. Walton at the last hearing and asked him are those meetings public somewhere? Is there a notice? And he said, no, it's by invitation. So I would love to be invited. I would go to every SRAC meeting there was, trust me. I've never been -- I mean, outside of the one time, I've not been invited nor do I know where to go to find out where those meetings are held.

MS. MOORE: Mr. King, would you like to comment on that?

MR. KING: Mr. Thomas has shown a fundamental misunderstanding of the TACO rule. We're not asking laboratories to establish cleanup objectives. Cleanup objectives are established on a site basis using a methodology for remediation methodology. That's in the rule, okay. The Agency has the final say so in doing that on a case-by-case basis.

We respond to proposals from a remediation applicant who contacts the SRP from the owner/operator who contacts the LUST program. We are not saying that the laboratories are coming up with a set of cleanup objectives. We're asking that they apply their expertise on issues that we seem to be testifying a lot about today is within their expertise.

HEARING OFFICER MCGILL: Okay. Any further testimony regarding laboratory issues? Questions? I think, Mr. Truesdale, you said you had some questions or testimony on aspects of the Agency rulemaking proposal?

MR. TRUESDALE: Yeah.

HEARING OFFICER MCGILL: I think we'll run through those and then if there are not any other persons who wish to testify, we'll have some closing remarks. Mr. Truesdale, why don't you proceed at this time.

MR. TRUESDALE: Once again I'm Joe Truesdale. My only question, possible testimony related to 742.320(d) regarding the changes to the compliance distances for ordinances adopted to address prohibition of installation of potable water supply wells. And I think, first of all, I'd like to start with a question to Dr. Hornshaw. If the -- has the Agency in this rulemaking put forth any consideration towards the vapor intrusion pathway associated with dissolved constituents in groundwater.

MR. KING: Joe, let me talk about that. In the context of this rulemaking, no, we are in the process of -- I assume you mean indoor vapor?

MR. TRUESDALE: Correct. Well, indoor and outdoor. The USEPA has guidance for both.

MR. KING: There is an outdoor vapor intrusion pathway element to TACO already.

MR. TRUESDALE: For the soil, not for the groundwater.

MR. KING: That's true.

MR. TRUESDALE: Correct.

MR. KING: We are looking at a -- developing further

amendments to TACO that would address the vapor intrusion pathway into buildings, okay. We would -- we'll look to do that as another pathway under the TACO ordinance, okay. Under a best case scenario we would have something proposed to the Board by the end of calendar year, but I don't know that that's definitely going to happen. But we certainly are going to be going through a considerable amount of outreach to regulated community as we develop that approach.

MR. TRUESDALE: Very good. That was easy enough.

THE COURT: Thank you. Would anyone else like to testify today? Pose any questions? Seeing none, why don't we go off the record for a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: We just had a discussion off the record about establishing a pre-first notice public comment filing deadline. We expect to receive the transcript of today's hearing in the Board's offices by Monday, March 13th. I would ask that anyone who wishes to ensure that their public comment is considered for any first notice proposal by the Board get their public comments filed by April 17th, that's a Monday, and the mailbox rule would apply.

I note that anyone may file written public comments on this rulemaking with the clerk of the board. There will be other opportunities to file public comments. There's at least a 45 day

public comment period after first notice of publication in the Illinois Register. Just so you know, public comments may be filed with the clerk through the Board's web base, clerk's office on-line or COOL. Please note that all filings with the clerk of the board must also be served on the hearing officer and on those persons on the service list of this rulemaking. And please check with the clerk before filing to make sure you've got the most current version of the service list. We will -- Once we receive the hearing transcript, it will be posted on our website shortly after receiving it. Are there any other matters that need to be addressed at this time? Let's go off the record for a moment.

(A discussion was held off the record.)

HEARING OFFICER MCGILL: Before we adjourn, Mr. King had suggested a possibility of a work group to look at some of these laboratory issues. I guess we just wanted to get a sense from the participants as to the likelihood of that happening or will the Agency and some of the laboratory representatives be engaging in any discussions? Can you give us a sense of that at this point?

MR. KING: It's an open door.

MR. THOMAS: Again, we would love to participate.

HEARING OFFICER MCGILL: Okay.

MS. MOORE: So can we count on Mr. King to coordinate the meeting?

MR. KING: You can count on me getting somebody to coordinate that.

HEARING OFFICER MCGILL: Again, what we would ideally see in public comment would include an indication on how the participants think issues of ADLs and laboratory issues should be addressed, whether another hearing is needed before first notice, whether this issue should not be addressed in this docket at all, whether there should be a sub docket left open to work on those issues. There are all sort of different options but we would certainly like to hear from you if you could indicate that in your -- include that in your public comments, it would be greatly appreciated so the Board carefully considers all of that input, it would be very helpful to us.

Any other matters that need to be addressed at this time? Seeing none, I would like to thank everyone for participating today. It was a longer day than we thought it would be, but I think ultimately very enlightening. Thank you.

STATE OF ILLINOIS

COUNTY OF FAYETTE

C E R T I F I C A T E

I, BEVERLY S. HOPKINS, a Notary Public in and for the County of Fayette, State of Illinois, DO HEREBY CERTIFY that the foregoing 120 pages comprise a true, complete and correct transcript of the proceedings held on March 1st, 2006, at the Illinois Environmental Protection Agency, North Entrance, TQM Room, 1000 E. Converse, Springfield, Illinois, In the Matter of: Proposed Amendments to Tiered Approach to Corrective Action Objectives (35 Ill. Adm. Code 742), in proceedings held before Hearing Officer Richard R. McGill, Jr., and recorded in machine shorthand by me.

IN WITNESS WHEREOF I have hereunto set my hand and affixed by Notarial Seal this 8th day of March, 2006.

_____

Beverly S. Hopkins
Notary Public and
Certified Shorthand Reporter and
Registered Professional Reporter
CSR License No. 084-004316