

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF)
)
PROPOSED AMENDMENTS TO:)
TIERED APPROACH TO CORRECTIVE) R11-9
ACTION OBJECTIVES (TACO) (INDOOR) (Rulemaking – Land)
INHALATION): AMENDMENTS TO 35 ILL.)
ADM. CODE 742)

NOTICE OF FILING

TO: Mr. John T. Therriault	Mr. Richard McGill
Assistant Clerk of the Board	Hearing Officer
Illinois Pollution Control Board	Illinois Pollution Control Board
100 W. Randolph Street	100 W. Randolph Street
Suite 11-500	Suite 11-500
Chicago, Illinois 60601	Chicago, Illinois 60601
(VIA ELECTRONIC MAIL)	(VIA U.S. MAIL)

(SEE PERSONS ON ATTACHED SERVICE LIST)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the **PRE-FILED TESTIMONY OF BRIAN H. MARTIN**, a copy of which is herewith served upon you.

Respectfully submitted,

By: Alec M. Davis
Alec M. Davis

Dated: May 3, 2011

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CERTIFICATE OF SERVICE

I, Alec M. Davis, the undersigned, hereby certify that I have served the attached **PRE-**

FILED TESTIMONY OF BRIAN H. MARTIN upon:

Mr. John T. Therriault
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Illinois Pollution Control Board
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via electronic mail on May 3, 2011, and upon:

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by depositing said documents in the United States Mail, postage prepaid, in Springfield, Illinois
on May 3, 2011.

/s/ Alec M. Davis

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PRE-FILED TESTIMONY OF BRIAN H. MARTIN

NOW COMES the Site Remediation Advisory Committee ("SRAC"), and submits the following PRE-FILED TESTIMONY OF BRIAN H. MARTIN for presentation at the May 24, 2011, hearing scheduled in the above-referenced matter.

Testimony of Brian H. Martin

I. INTRODUCTION

Good Morning. My name is Brian Howard Martin, and I am a Consulting Environmental Scientist at Ameren Services in St. Louis, Missouri_ I have over 25 years of experience working in the environmental field. In addition, I represent the Illinois Chamber of Commerce as current Chairman of the S C . On behalf of SRAC, I want to thank the Illinois Pollution Control Board ("Board") for the opportunity to present this testimony today.

Pursuant to its statutory charge, SRAC has been active in working with the Agency in developing this proposal since 2007. My testimony today is intended to speak, on behalf of SRAC, in support of the Agency's proposal generally, but also to provide additional information

SRAC is authorized by Section 58.11 of the Illinois Environmental Protection Act, 415 ILCS 5158.11, and consists of members from the Illinois State Chamber of Commerce, Illinois Manufacturer's Association, Chemical Industry Council of Illinois, Consulting Engineers Council of Illinois, Illinois Bankers Association, the Community Bankers Association of Illinois, Illinois Realtor Association, and the National Solid Waste Management Association. Additional groups, such as the Illinois Environmental Regulatory Group, the Illinois Petroleum Council, the Illinois Petroleum Marketers Association, and City of Chicago, participate on an ad-hoc basis.

for the Board's record regarding the multiple lines of evidence inherent in any remediation pursuant to TACO, as well as details on implementing a vapor intrusion site assessment. **II.**

MULTIPLE LINES OF EVIDENCE

At the hearing held March 29, 2011, representatives of the Board asked a number of questions of the Agency witnesses regarding the U.S. EPA's concept of requiring multiple lines of evidence in performing a vapor intrusion site assessment. I concur with the answers provided by the Agency witnesses, however I would like to offer some supplemental detail in support of the position that TACO, as proposed to be amended in this rulemaking, in conjunction with the underlying programs that implement TACO (SRP, LUST, RCRA) already require a level of information related to a corrective action site as envisioned by U.S. EPA's multiple lines of evidence.

Based on my understanding of the U.S. EPA's concept of preferring multiple lines of evidence, the underlying rationale is ensuring that a sufficient amount of information has been collected to accurately determine whether the indoor inhalation pathway is complete. The questions asked by the Board at the March 29, 2011 hearing seemed to focus on the fact that the proposal, in some instances, allows a remedial applicant to exclude the indoor inhalation pathway based on a single type of data (i.e., groundwater) conforming with the remediation objectives ("RO"). The conclusion that such a requirement only takes into account a single line of evidence is not correct. Taken in context with the entire TACO process, the Indoor Inhalation proposal does apply multiple lines of evidence as envisioned by USEPA - even in instances where Table H is applied and only groundwater data are used to determine compliance with ROs. In this case, the preference for multiple lines of evidence is met because other relevant portions

of the TACO requirements require the collection and evaluation of data that also serve to evaluate the Indoor Inhalation pathway. Such data include:

- Past and current land use,
- Historic and current releases,
- Contaminant sources and areas containing free product,
- Extent of groundwater and soil impacts and modeled future groundwater impacts,
- Rate and direction of groundwater flow,
- Locations of any nearby public or private groundwater wells,
- Local geologic conditions, and
- Locations of potential on- and off-site receptors.

The above data, combined with groundwater data for comparison with the Table H ROs does provide multiple lines of evidence to be used for evaluation of potential risks. Only after consideration of all of these factors will the Illinois EPA issue a No Further Remediation Letter.

III. IMPLEMENTATION ISSUES

SRAC agrees with the Illinois EPA's position that indoor air sampling should not be required under Tiers 1 or 2. It is my understanding that there are numerous complicating factors inherent in conducting indoor air sample collection and results analysis. If indoor air sampling is necessary at a specific site, a remedial applicant may do so under Tier 3.

Based on my experience, the difficulties and uncertainty inherent in indoor air sampling include indoor chemical use; i.e., paint, pesticides (with volatile organic carriers), cleaning products, personal hygiene products, tobacco use and others. Even with an appropriate survey of conditions within the premises prior to sampling, it may be impossible to distinguish compounds that are generated indoors from those that originate from the subsurface. Because of these

complicating factors, groundwater, soil and/or soil gas sampling can provide data that are more reliable for the assessment of potential environmental exposure. Indoor air sampling should not be required unless there is an established exposure pathway from the source to the Indoor Inhalation exposure route. Under the proposed rules, as modified by the Illinois EPA Errata #2, the soil to groundwater to vapor phase is thoroughly investigated by multiple lines of evidence as described above.

Mandatory indoor air sampling without establishing a completed pathway would be a technical leap that assumes a complete pathway in the absence of data. The record for this proceeding describes the variables that are important to consider when investigating the separation and movement of a vapor phase from the source. The proposed rule also allows the Illinois EPA the latitude to expand the investigation in order to determine whether or not a completed pathway may exist. Arbitrarily adding an investigation of indoor quality in the absence of hard data that the pathway may be complete only increases the likelihood of a false positive result.

As with the investigation of other potential exposure pathways, the cost of a soil gas investigation will vary with the size and complexity of the project. The collection of soil gas samples requires specialized equipment. Currently, soil gas samples are not routinely collected as part of a remedial investigation. These samples cannot be collected with the equipment that is typically used to install groundwater monitoring wells or to collect soil samples. Soil gas samples are often collected with a Geoprobe or similar direct-push sampling equipment. The cost of a soil gas investigation with labor, equipment and report preparation can be \$5,000 per day with an additional \$200 analytical cost per soil gas sample. Although the TACO Indoor Inhalation regulations are not yet in effect, I have been involved with a limited number of soil

gas investigations. As an example, the cost at one complete soil gas investigation, including analysis of 10 soil gas samples, data interpretation and report preparation was approximately \$22,000. This was in addition to the cost for the routine site investigation pursuant to existing TACO requirements.

IV. CONCLUSION

I would like to thank the Agency for its willingness to work with SRAC, and consider its input in the development of this proposal before the Board. SRAC supports the proposal being adopted by the Board.

On behalf of SRAC, I would like to thank the Board for providing the opportunity to present testimony in this rulemaking. I would be happy to respond to any questions regarding my testimony.

Respectfully submitted,

Dated: May 3, 2011

By: _____ Brian
H. Martin

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