

October 2008



Vol. 47, No. 5

Lake Michigan States Section Air & Waste Management Association Newsletter[®]

2008 AIR QUALITY MANAGEMENT CONFERENCE

November 7, 2008

Doubletree Guest Suites & Conference Center

2111 Butterfield Road
Downers Grove, IL 60515



The Lake Michigan States Section of the Air & Waste Management Association is pleased to once again offer the Midwest's most comprehensive annual program on air quality management issues. The LMSS's Air Quality Management conference has become a tradition in the region - bringing together environmental professionals from industry, government, environmental services and the legal community to learn about the hottest issues and most important developments in this rapidly evolving field. This year, prominent leaders in air quality management will provide information and insights on such current topics as Climate Change policy and what it means to industry and an industrial perspective on air quality regulatory enforcement. Also to be covered will be new developments in permitting and other regulatory initiatives.

Companies that supply products and services for environmental management will have exhibits on display at the conference. There are also sponsorship opportunities available. For information on exhibiting or sponsorship, contact Robin Pelsis at (847) 202-0418 or robin@lmawma.org.

CLEAN AIR ACT PRIMER

November 6, 2008

7:00-9:00 p.m.

Environmental professionals working in the air quality area should have an understanding of what the Clean Air Act is and what it entails. This primer is perfect for environmental managers with expanding air quality responsibility, supervisors directing air quality professionals, and experienced air quality managers looking for a broader perspective on their field. The course will provide an overview all of the Clean Air Act, with special attention on Title III - Air Toxics and Title V - Clean Air Act Permitting. Handouts distributed from the course will cover the Clean Air Act and its details, Air Toxics and other valuable information that can serve the professional as a reference for years to come.

Course Instructors are: Paul Farber, PE DEE, Senior Environmental Specialist with Sargent & Lundy with over 25 years experience in air pollution and air pollution control; and Dale G. Kalina, Ph. D., a Principal with Environmental Partners, Inc., with 20+ years experience in dealing with air pollution control regulations.

CONFERENCE AGENDA



THURSDAY, November 6, 2008

7:00 p.m. **CLEAN AIR ACT PRIMER**

*Dale Kalina, Principal
Environmental Partners, Inc.*

*Paul Farber, Sr. Environmental Specialist
Sargent & Lundy*

FRIDAY, November 7, 2008

8:00 a.m. **WELCOME & INTRODUCTION**

*John Yates, Civil & Environmental Consultants, Inc.
LM-A&WMA Past Chair*

LAKE MICHIGAN STATES SECTION UPDATE

*Ferdinand Alido, Navistar, Inc.
LM-A&WMA Vice Chair, Programs*

8:15 a.m. **ISSUES IN NATIONAL AIR QUALITY POLICY**

Speaker: *Mary Pat Tyson, Branch Chief, Air & Radiation Division
U.S. Environmental Protection Agency, Region 5*

8:45 a.m. **STATE AIR POLICY**

Moderator: *John Yates, Civil & Environmental Consultants, Inc.*

Speakers: *Dan Murray, Assistant Commissioner
Indiana Department of Environmental Management*

*Laurel Kroack, Bureau Chief, Bureau of Air
Illinois Environmental Protection Agency*

10:00 a.m. **BREAK AND EXHIBIT VIEWING**

10:30 a.m. **CLIMATE CHANGE: WHAT IT MEANS TO INDUSTRY**

Moderator: *Christopher Perzan, Law Offices of Christopher P. Perzan, P.C.*

Speakers: *Richard Saines, Attorney
Baker & McKenzie*

*James Jerozal
General Manager, Environmental Health and Safety
Nicor, Inc.*

*Christopher Blume, P.E., Director, Air Quality Services
GaiaTech Inc.*

*Mike Quinn, Attorney
Seyfarth Shaw, LLP*

12:00 noon **LUNCHEON**

Moderator: **Eric Boyd**, Seyfarth Shaw, LLP

Speaker: **Robert Kaplan**, Regional Counsel
U.S. Environmental Protection Agency Region 5

1:45 p.m. **CURRENT AIR PERMITTING CLIMATE**

Moderator: **Eric Boyd**, Seyfarth Shaw, LLP

Speakers: **Ann Alexander**
National Resources Defence Council

Chris Romaine, New Source Review
Illinois Environmental Protection Agency

Bill Forcade, Attorney
Jenner & Block, LLP

3:00 p.m. **BREAK AND EXHIBIT VIEWING**

3:15 p.m. **AIR QUALITY ENFORCEMENT, AN INDUSTRY PERSPECTIVE**

Moderator: **John Yates**, Civil & Environmental Consultants, Inc.

Speakers: **Edith Ardiente**, Vice President
Environmental Affairs
Navistar, Inc.

Speaker TBA

4:15 p.m. **CLOSING RECEPTION - SPONSORED BY THE EXHIBITORS**

If you are unable to join us for this conference, but know of a colleague who would be interested in attending, please pass this brochure on to them.

**Check out our website at: www.lmawma.org
for updates to this conference brochure.**

Conference Co-Chairs: **John Yates**, Civil & Environmental Consultants Inc.
Eric Boyd, Seyfarth Shaw, LLP
Christopher Perzan, Law Offices of Christopher P. Perzan, P.C.

Exhibitor Chair: **David Ozawa**, Platt Environmental Services, Inc.

CONFERENCE REGISTRATION

NAME: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ ST _____ ZIP _____

PHONE: _____ FAX: _____

E-MAIL: _____

REGISTRATION:

- Air Primer Course Only Members and Non-Members \$110
(not attending Nov. 7 Air Conference)
- Air Primer Course and November 7 Conference Registration
 - Members \$300
 - Non-Members \$350
 - Government Employee \$225
 - Students \$110
- Air Conference Only (Nov. 7)
 - Members \$225
 - Non-Members \$275
 - Government Employee \$125
 - Students \$75

A limited number of scholarships are available for anyone who requires CLE credit to maintain professional registration such as attorneys, professional engineers and professional geologists and who could not otherwise afford to attend this conference. Contact Robin Pelsis at (847) 202-0418 or robin@lmawma.org for more details.

There are also a limited number of government scholarship available to government employees interested in attending but cannot obtain funding to do so.

Payment via: check cash Visa Mastercard American Express

Amount Paid: \$ _____

Credit Card # _____ Exp. Date: _____

Signature: _____

To register - mail, fax, or e-mail your registration to:

Robin Pelsis, LM-A&WMA
11 Pleasant Hill Blvd.
Palatine, IL 60067
(847) 202-0418 FAX: (847) 202-0427
E-mail: robin@lmawma.org

There is a small block of hotel rooms set aside for conference attendees. Contact Robin Pelsis at (847) 202-0418 to reserve one of the rooms.

“Y2K + 20” - Climate Change Theory in Peril

By: *William K. Graham, P.E.,
Past Chair LM-AWMA*

Al Gore gathered \$300 million to share the ‘truth’ of man-induced climate change. He now warns of irreversible damage to the earth if dramatic action isn’t taken before 2020. These echo the overwrought Y2K panacea which cost billions, but vanished overnight. NASA satellite temperature data confirms that atmospheric temperatures have dropped to the lowest values since 1979 when NASA started collecting data. While man-made models guarantee catastrophic global warming due to elevated CO₂; recent satellite data show significant and rapid atmospheric cooling. NASA data also shows recent ocean cooling attributed to the Pacific Decadal Oscillation.*

Some scientists observe that atmospheric cooling correlates best with decreased solar activity and subsequent cooling of ocean temperatures. They suggest the sun heats the earth, heat is stored and released by the oceans, which moderate weather and atmospheric temperatures. An innocuous gas, which serves as a plant nutrient and occurs in trace amounts (0.04 weight %) so far has an immeasurable effect on anything but rhetoric of progressive politicians and radical environmentalists.

Main stream media report little at odds with the theory. Millions of research dollars hinge on tacit acceptance of the theory. Skeptics with the temerity to question the theory may expect *ad hominem* attacks. But recent years have seen a sharp increase in the release of scientific facts and testimonies questioning the theory of man-induced climate change. It is at last clear that there is no ‘consensus’ of scientists on climate change.

Fortunately, the internet has transformed and accelerated information sharing. Inquiring minds have a variety of sources that present new information, none of which documents warming effects due to increased carbon dioxide in the atmosphere. Many web sites and blogs are interlinked. [i.e. icecap.us, heartland.org, climatescienceinternational.org].

The explosion of interest in the topic has spawned numerous seminars and books, many attacking the theory.

For a theory to be scientific, it must be testable and falsifiable. The theory of global warming is being tested and data proves it is coming up short. Worldwide, thousands of scientists testify to its falsehood, both in theory and practice. [See *Rich Trzupek’s slide presentation at Heartland.org*]

Troublesome Facts

- A National Academy of Sciences panel in 2006 reported that the “hockey stick” graph is not proof that human activity is linked to global warming. It was fraudulently created; even warming proponents have dropped it.
- No data confirms the theory of causation between carbon dioxide concentration and temperature. Ice core data show global temperature rises precede rises in CO₂. [Increased ocean temperatures do increase release of CO₂.]
- IPCC researchers reported [Nature 5/1/08] that after adjusting their climate model to reflect actual sea surface temperatures of the last 50 years, “*global surface temperature may not increase over the next decade,*” since natural climate variation will drive global climate.
- Predictive models overestimate climate sensitivity by excluding some effects of cloud cover. Corrected models forecast minor to negligible temperature change.
- Surface station temperature data are compromised by urbanization and local factors and overestimate warming trends by up to 50%.
- Recent data and research confirm natural relationships among solar cycles, ocean temperatures and atmospheric temperatures.

Continued on page 6.

“Y2K + 20” - Climate Change Theory in Peril (con't.)

- In May 2008, the Oregon Institute of Science and Medicine released a petition signed by more than 31,000 U.S. scientists stating, *“There is no convincing scientific evidence that human release of carbon dioxide, methane or other greenhouse gases is causing, or will cause in the future, catastrophic heating of the Earth’s atmosphere and disruption of the Earth’s climate...”*
- The March, 2008 Manhattan Declaration and 1180 endorsers testify *“That there is no convincing evidence that CO₂ emissions from modern industrial activity has in the past, is now, or will in the future cause catastrophic climate change. That attempts by governments to inflict taxes and costly regulations on industry and individual citizens with the aim of reducing emissions of CO₂ will pointlessly curtail the prosperity of the West and progress of developing nations without affecting climate.”*
- India’s National Action Plan on Climate Change [6/08] states, *“No firm link between the documented [climate] changes described below and warming due to anthropogenic climate change has yet been established.”*
- Global warming is the ‘Worst scientific scandal in history’, according to Dr. Kiminori Itoh, a Top UN IPCC Japanese Scientist and award-winning PhD environmental physical chemist.

Testifiers to the Truth

“Global warming is a false myth and every serious person and scientist says so. It is not fair to refer to the U.N. panel. IPCC is not a scientific institution: it’s a political body, a sort of non-government organization of green flavor. It’s neither a forum of neutral scientists nor a balanced group of scientists. These people are politicized scientists who arrive there with a one-sided opinion and a one-sided assignment” Vaclav Klaus, the President of the Czech Republic. 2/08

“But since 1999 new evidence has seriously weakened the case that carbon emissions are the main cause of global warming, and by 2007 the evidence was pretty conclusive that carbon played only a minor role and was not the main cause of the recent global warming. As Lord Keynes famously said, ‘When the facts change, I change my mind. What do you do, sir?’” 7/17/2008, Dr David Evans, Modeler for the Australian Greenhouse Office from 1999 to 2005.

“In conclusion, I am predicting today that the theory that mankind is mostly responsible for global warming will slowly fade away in the coming years, as will the warming itself, and I trust you would agree, Madam Chair, that such a result deserves to be greeted with relief” 7/22/2008, Dr. Roy Spencer, Climatologist, Univ Alabama-Huntsville, formerly NASA modeler, testimony to Sen. Boxer Committee on Climate Change Research.

** “Since there was global cooling from ~1940 to ~1979, this means there has been no net warming since ~1940, in spite of an ~800% increase in human emissions of carbon dioxide. This indicates that the recent warming trend was natural, and CO₂ is an insignificant driver of global warming. Furthermore, the best fit polynomial shows a strong declining trend. Are we seeing the beginning of a natural cooling cycle? YES. Further cooling, with upward and downward variability, is expected because the Pacific Decadal Oscillation (PDO) has returned to its cool phase, as announced by NASA this year. Global warming and cooling have closely followed the phases of the PDO. The most significant pattern of PDO behavior is a shift between “warm” and “cool” phases that last 20 to 30 years. In 1905, the PDO shifted to its “warm” phase. In 1946, the PDO changed to its “cool” phase. In 1977, the PDO returned to its “warm” phase and produced the current warming. In 2007-8, the PDO turned cold again, so we can expect several decades of naturally-caused global cooling. Some scientists are predicting that this cooling will be severe, and is a greater threat to humanity than global warming ever was. Meanwhile, politicians are still obsessing about global warming.”* Allan MacRae, 9/17/2008

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“Y2K + 20” - Climate Change Theory in Peril (con't.)

“AL GORE says, “I believe this is a moral issue.” So it is. To “announce disasters” or “scary scenarios” or “over-represent factual presentations” in place of adherence to the scientific truth – that is a moral issue.

To let politicians insert data into official scientific documents; to alter those documents so as to contradict scientific findings; to manipulate decimal points so as to engender false headlines by exaggerating tenfold – those are moral issues.

“Above all, to inflict upon the nations of the world a policy of ever-grimmer energy starvation calculated not merely to inconvenience the prosperous but to condemn the very poorest to remain imprisoned in poverty forever, and to die in their tens of millions for want of the light and heat and power which we have long been fortunate enough to take for granted – that is a moral issue.

“...each of us, however poor, is of unique and precious value; that therefore there is only one race, the human race; that the suffering children of Africa,

*of Asia and of south America, imploring us with their hopeless, hopeful eyes, are our people. They cannot look to their own. They look to us. We must get the science right or we shall get the policy wrong. We have failed them and failed them before. **We must not fail them again!**” Lord Christopher Monckton of Brenchley, Cambridge Union Society address, 10/8/2007*

Invitation: While the theory of man-induced global climate change may be a casualty here, the greater casualty is Science itself. The scientific community and media have taken the world for a costly ride. The environmental community may have said ‘the sky is falling’ once too often. Trust, once lost, can take time to restore. I invite members of LM-AWMA to provide necessary leadership by abandoning prejudice, embracing the truth and speaking out.

Contributor: William K. Graham, P.E., Past Chair LM-AWMA billgrahamPE@aol.com



New Members

Raymond Akers
Cook County Environmental

Randall Boisvert
Lehigh Hanson

Christopher Cailles
DAI Environmental, Inc.

Eileen Cronin
Equistar Chemicals, LP

Tom Dupont
Tesa Tape Inc.

Puneet Goenka
Navistar

Nathan Jolliff
Navistar Parts

Yongqi Lu
UIUC

Amanda Roccaforte
CH2M Hill

Alison Somilleda

Daniel Vidusek
Spraying Systems Co.

Chris Wergin
ERM

Les Young
Cook County Environmental

Scientific Uncertainty and the Precautionary Principle

*By: Christopher Blume, P.E.
Current Chair, LMSS-A&WMA*

Since 1824, when French physicist Joseph Fourier first described a “greenhouse effect” to Paris’s *Académie Royale des Sciences*, the concept of anthropogenic global warming has evolved from an obscure theory to a seriously regarded hypothesis, if not a widely accepted “truth”. However, this “anthropogenic causality” hypothesis is not supported by irrefutable, reproducible, direct scientific proof.

Given our unique role as the most influential species on our planet, mankind is entrusted with the stewardship of the Earth. Our collective decisions and actions can, and will likely, have a non negligible, if not significant, affect on the well-being of life in this biosphere we all call home.

As scientists, we have the duty to assist our leaders in making informed decisions on public policy, most especially those policies related to situations with at least one plausible outcome of significant, detrimental affects on human life, health and well-being. And yet, available scientific evidence cannot always guarantee the absence of uncertainty related to public policy choices involving complicated issues.

Global climate change is very likely the most complex matter ever confronted by the scientific community. The precision and accuracy of our current tools to quantitatively describe the issue are grossly insufficient. Even the most technically advanced models cannot reliably produce an accurate local weather forecast; much less predict with certainty the temperature of the Earth’s surface in

100 years. As such, we are unable to answer every question, or validate or refute each plausible hypothesis, related to one or more factors that potentially have a significant influence out climatic system.

Technological advancements will result in enhanced ability to assess the factors which significantly influence global climate change. But how long will such advancements take? And, will they result in a level of scientific certainty that allows for unanimity among our technical leaders?

The “Precautionary Principle” provides that when a situation presents threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships have not been fully established scientifically. In effect, this approach seeks to prevent critical public policy decisions from being entrapped by the “analysis paralysis” that is often times part of the pursuit of full scientific certainty.

Like many other nations, the United States will act on adequately compelling data that supports the hypothesis of anthropogenic greenhouse gas emissions influencing Earth’s temperature. This decision to act is more a decision not to not act while the scientific community works out their differences.

By Christopher Blume, P.E.
Current Chair, LMSS-A&WMA

The views expressed in this article are those of the author and are not necessarily shared or supported by entities with whom the author is affiliated, included the Lake Michigan States Section of the Air & Waste Management Association or GaiaTech, Incorporated.

The Climate Registry

*By: Ann McCabe, Midwest Regional Director
The Climate Registry*

The Climate Registry represents the highest quality standards for greenhouse gas (GHG) emissions measurement and reporting, and it is growing. Between January 1 and September 25, 280 companies, governmental entities and non-governmental organizations (NGOs) have become Members of North America's leading GHG registry. Participants, many of which are Fortune 500 companies, have committed to voluntarily report their carbon footprints and have that data made publicly available. Members in Lake Michigan states include Xcel, Ford, Subaru of Indiana, Midwest Generation (Edison International), Wolverine Power, S&C Electric, Horizon Environmental, Madison Environmental Group, Northland College and RMT, Inc.

The Climate Registry is a nonprofit organization that sets consistent and transparent standards for the measurement, verification, and public reporting of GHG emissions throughout North America in a single, unified registry. The Registry supports both voluntary and mandatory reporting programs, provides meaningful information to reduce GHG emissions, and embodies the highest levels of environmental integrity.

In March 2007, U.S. states and Canadian provinces joined together to incorporate The Climate Registry. The incorporation followed strong local interest in the efforts to create a voluntary Midwest Registry. The Lake Michigan Air Directors' Consortium, World Resources Institute and NESCAUM helped staff the early organizational efforts and protocol development.

The Board of Directors membership of The Registry now includes 39 U.S. states, the District of Columbia, 10 Canadian provinces and two territories, six Mexican states and three Native Sovereign Nations. These Board members represent nearly 100% of the Canadian population and over 85% of the overall

North American population. The governors and premiers of each jurisdiction have publicly committed to support The Registry's reporting program and its efforts.

The Registry is continuing to develop industry-specific GHG reporting protocols, involve local utilities, support mandatory reporting programs, and promote consistency among them.

Industry-Specific Protocols Under Way

The Climate Registry seeks to enable sectors across North America to effectively report their emissions footprints. To do so, The Registry will develop industry-specific protocols—starting with the Local Government Operations (LGO) protocol. This protocol was developed in partnership with the California Air Resources Board, California Climate Action Registry, and ICLEI – Local Governments for Sustainability. This protocol enables local governments to calculate and report GHG emissions associated with government operations to help track emissions reduction progress against GHG reduction targets. The Climate Registry has also begun work on protocols for the electric power and oil and gas sectors.

Local Utilities Help Large Business Customers Report GHGs

The Registry's Climate Efficient program provides additional energy efficiency incentives to corporate customers of regional utilities throughout North America. It promotes the installation of energy efficiency projects that reduce overall energy usage, substantially reduce GHG emissions and save money. The program is currently underway with Southern California Edison and The Gas Company and is set to roll out for utilities and their large customers throughout North America in 2009.

Continued on page 10.

The Climate Registry (con't.)

Consistent Voluntary and Mandatory GHG Reporting

The Registry has begun to work with the State of Nevada in a pilot mandatory GHG reporting program and is beginning to work with other states and regions with mandatory reporting. In addition, The Registry joined with two divisions of the U.S. EPA (the Office of Air Quality Planning and Standards and the Climate Change Division) to create a new data system called CERS (Consolidated Emissions Reporting Schema) that will allow far easier emissions data sharing between the U.S. EPA, states, The Climate Registry, and companies with Environmental Management Systems.

Companies involved with the Chicago Climate Exchange, the U.S. EPA's Climate Leaders and the U.S. Department of Energy's 1605b program can transfer historic data to The Registry once the data has been verified. The Registry's detailed GHG emissions reporting and verification requirements and public release of post-verification facility-level GHG data builds upon these other programs and sets The Registry apart.

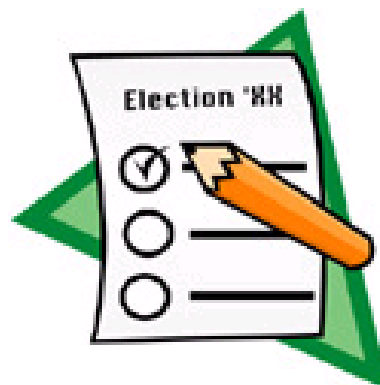
Organizations in The Registry Lead North America, Reap Rewards

By preparing a GHG mitigation plan with The Climate Registry's reporting structure, businesses protect their economic interests, affirm their public environmental leadership, gain the experience needed to contribute to shaping regulatory legislation, and take advantage of voluntary mechanisms while they last. Organizations that do not account for their GHG emissions and work to mitigate them will be behind when regulatory policies take effect.

For additional information about The Climate Registry, including reporting and verification protocols, how to join, a list of current Members, and webinars please visit www.theclimateregistry.org or contact Ann McCabe, Midwest Regional Director, ann@theclimateregistry.org or 773.661.1230.

Lake Michigan States Section Annual Election

With the change to our fiscal year, the Annual Election is now held in November. The Board is now taking requests to be on the 2009 Ballot. Candidates need to be current A&WMA members with a willingness to participate in and plan Section events. If you are interested in having your name placed on the 2009 Ballot, please contact Jim Powell, Outgoing Chair, at 630-799-0290 or jim.powell@amec.com.



IEPA'S NEW PROPOSED TACO AMENDMENTS

*By: Christopher P. Perzan
Law Offices of Christopher P. Perzan, P.C.*

On September 3, 2008 the Illinois EPA filed a long-awaited proposed amendment to the Tiered Approach to Corrective Action Objective (TACO) rules proposed a new pathway to assess vapor intrusion, referred to as the Indoor Air Pathway in the proposed rules, as well as update the remediation objectives for the other pathways. Once final, these proposed changes will impact remediations conducted under the Site Remediation program, the Illinois RCRA program, and the Illinois Leaking Underground Storage Tank program. The proposal was filed with the Illinois Pollution Control Board, which issued an order accepting the proposal and directed hearings on the proposal to proceed. There are a number of interesting issues posed by this rulemaking.

The Tier 1 indoor inhalation pathway uses a look-up table similar to that for the other pathways. These contain comparison values for residential and industrial/commercial for soil, groundwater and soil gas. Alternative remediation objectives can be developed under the provisions of Tier 2 and Tier 3. The amendment contains a new form of institutional control, building technology. This is an element of a building designed to control vapor intrusion. The amendment sets out several building control technologies that are recognized (essentially having been proven effective in appropriate circumstances) initially including subslab depressurization, submembrane depressurization and membrane barriers. The building control technology must have accompanying maintenance.

The building control technology is a new form of institutional control that may pose more challenges over time than most of those under the existing TACO requirements. Whereas most other institutional controls consisted of things such as property use restrictions, groundwater use restrictions or relatively simple structural elements such as engineered barriers, building control technologies can be more

complex seen the present set of institutional controls. Buildings are also dynamic, with owners and occupants frequently making changes to the building thus posing a greater risk throughout the building's lifetime of noncompliance with the control. These elements may also require more demands for maintenance that will be in effect in perpetuity, including the requirement to notify building occupants in advance of any intrusive activities.

As noted in the rules, a failure to maintain the building control technologies is grounds for the avoidance of the NFR, and loss of accompanying liability protections. When the liability protections are lost, they are lost not only for the person who violated the NFR requirements, but likely for previous owners or operators as well. Beyond that, because the violation of an NFR is a violation of the Environmental Protection Act, the person who fails to maintain the building control technologies may face liability beyond that arising from any exposure to contaminants. This means that those placing this institutional control on a property should give thought to employing additional means to protect themselves from the actions or inactions of subsequent owners.

The rules themselves do not, on their face, impact existing sites and the Illinois EPA has stated that it has no plans to reopen previously closed sites. Therefore, there will be no obligation on the part of a property owner who has received an NFR to reopen the site to address vapor intrusion. However, the fact that earlier NFRs do not address this potential pathway does raise the question as to whether NFRs issued prior to the new rules will carry the same value in terms of liability protection as those issued under the new rules. In the future, prospective purchasers of a site where volatile contaminants are present in the soil or groundwater will note whether a

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IEPA'S NEW PROPOSED TACO AMENDMENTS (Con't.)

previously-issued NFR was issued under the pre- or post-indoor air pathway rules and evaluate the risks accordingly. An NFR issued prior to the amendments will not have addressed the indoor air pathway and hence will not provide any protection for liability arising from the indoor air pathway. (Although it is certainly possible that steps taken under an NFR to address volatile contamination under the other pathways may have addressed the indoor air pathway without necessarily having that as a goal.)


These are just a couple of the issues that this rulemaking presents, this is a rulemaking well worth watching. The Board will hold a series of hearings and take public comments prior to issuing the Board's initial version for first notice. The best opportunity for public comment to have an impact is in the hearing and comment period prior to first notice. Therefore, parties with an interest in these rules should watch developments carefully over the next several months.

SUSTAINPRO CONFERENCE OCTOBER 29-30, 2008

SustainPro exclusive—see billionaire and wind power advocate and Pickens Plan head T. Boone Pickens, get a FREE copy of Pickens' newest best-seller "The First Billion is the Hardest," network with 200+ Corporate Responsibility Officers at the co-located CRO Conference, meet 500 sustainability expert attendees, plus see 25+ headline-grabbing sustainability speakers at SustainPro.

Register today to see T. Boone Pickens, Obama energy & environment advisor Howard Learner, Seventh Generation CEO Jeffrey Hollender, Interface Chairman Ray Anderson, City of Chicago Environment Commissioner Suzanne Malec-McKenna, CERES CEO Mindy Lubber and 25 other sustainability stars who show you how to grab energy savings and share sustainability secrets for your eco-concerned corporate stakeholders.

Full conference information can be found at www.SustainPro.com. LM-A&WMA members are invited to attend at a reduced rate by registering at <http://www.eiseverywhere.com/sustainpro?categoryid=9493>



The **Annual Holiday Reception** will be held
on **Tuesday, December 2, 2008** at
IIT Stuart School of Business
565 W. Adams St.
Chicago, IL 60661

This event is always an enjoyable, relaxing, fun evening that provides the opportunity to meet fellow environmental professionals in a non-business setting. You will have a chance to network with your peers and their guests while enjoying cocktails and delicious hors d'oeuvres.

Attendees are invited to bring a guest and help us celebrate the holiday season. There is no cost to attend this event. All we ask is that you RSVP your intention to attend.

Sponsorship Opportunities are available for \$100

Contact Robin Pelsis at Robin@LMAWMA.org or (847) 202-0418 to make your reservation or to be a sponsor.

Proposed TACO Amendments Will Affect Most Sites Currently in SRP in Illinois

By: *Lawrence L. Fieber, PG, Principal*
Burns & McDonnell Engineering Company

Overview

On September 3, 2008, the Illinois Environmental Protection Agency (Illinois EPA) filed, with the Illinois Pollution Control Board, numerous Proposed Amendments to the Tiered Approach to Corrective Action Objectives (“TACO” 35-IAC-742). The Proposed Amendments represent the most significant changes to TACO, since first adopted in June of 1997. The proposed amendments include:

- Addition of the Indoor Inhalation exposure route,
- Creation of the “Outdoor Inhalation” exposure route (basically renamed the existing “Inhalation” exposure route),
- New definitions for “Building”, “Building Control Technology”, “Soil Gas” and “Soil Vapor Saturation Limit” (or “Cvsat”) as well as amended definitions of “Soil Saturation Limit” (or “Csat”) “Volatile Chemicals”,
- Addition of a new Subpart L entitled *Building Control Technologies*,
- Revision of numerous Tier 1 remediation objectives, to conform TACO with updated toxicological data and the proposed amendments to the Groundwater Quality Standards (35-IAC-620),
- Addition of Appendix B Table G entitled *Tier 1 Indoor Inhalation Remediation Objectives for Residential and Industrial/Commercial Properties for the Indoor Inhalation Exposure Route*. This table provides media specific Tier 1 remediation objectives for assessing the Indoor Inhalation exposure pathway where Volatile Organic Chemicals have been detected in soil, groundwater or soil vapor,
- Addition of 18 equations, 56 parameters and a model to help practitioners assess indoor inhalation exposure using soil, water and soil vapor data utilizing site specific information.

- Incorporation by reference of numerous new reference materials utilized by Illinois EPA in the development of the Proposed Amendments. Most of the new reference materials relate to Indoor Inhalation.
- Addition of 15 new chemicals to conform TACO with the proposed amendments to the Groundwater Quality Standards (35-IAC-620).

Many Remediation Sites Will be Affected

The Proposed Amendments would broadly affect Illinois remediation sites that are improved with buildings, by requiring assessment of the Indoor Inhalation exposure route for 59 Volatile Organic Chemicals, by modifying the definition of the Soil Saturation Limit, and by lowering the majority of the Soil Saturation Values listed in Table A of Appendix A. Illinois EPA has stated that it will not issue “[g]eneric re-openers (as other States have done)...” but reserves the option to “reopen closed sites to address the indoor inhalation pathway if site-specific information demonstrates a threat to human occupants of a building”¹. Therefore, the Proposed Amendments could affect sites with existing No Further Remediation letters issued pursuant to TACO under the Site Remediation Program Rules (35-IAC-740).

Indoor Inhalation Exposure Route Exclusion

Illinois EPA proposes to handle the Indoor Inhalation exposure route according to the familiar three-tier framework, however, exclusion of the Indoor Inhalation pathway is allowed only when:

1. Volatile Organic Chemicals (including mercury) are not present,
2. Buildings are not and will not be located over the impacted areas (Institutional Control required),
3. An engineered barrier meeting Subpart K criteria is in place (Institutional Control required); or

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Proposed TACO Amendments Will Affect Most Sites Currently in SRP in Illinois (Con't.)

4. Approved site-specific Building Control Technologies are in place for existing buildings and will be in place for future buildings prior to human occupancy (Institutional Control required).

Building Control Technologies to Manage Inhalation Exposure

The Proposed Amendments recognize the following building control technologies that may effectively limit Indoor Inhalation exposure:

- Sub-slab depressurization (SSD) systems
- Sub-membrane depressurization (SMD) systems
- Membrane barrier systems, and,
- Geologic materials.

Applying Tier 1 and Calculating Tier 2 Remediation Objectives

Unless the Indoor Inhalation route is excluded, the Tier 1 remediation objectives for Indoor Inhalation must be evaluated using Volatile Organic Chemical concentrations from soil and groundwater or from Soil Gas. If the applicable Tier 1 remediation objectives are exceeded, site-specific Tier 2 objectives may be calculated using the “modified” Johnson and Ettinger Model (J & E Model) described in 742.717 and Appendix C Tables L and M. According to the Illinois EPA, the J & E Model is most sensitive to water content and the fraction organic carbon content.

New Chemicals Included with the Proposed Amendments (See chart below)

The Proposed Amendments would add the following new chemicals to TACO:

CAS No.	Chemical Name	Common Use
78-93-3	2-Butanone (or Methyl Ethyl Ketone “MEK”)	Solvent uses in lacquers, thinners, adhesives, glues, nail polish, cleaning solvents, and paint and nail polish removers.
1918-00-9	Dicamba (and many other herbicide trade names)	Dicamba is a pre- and post-emergence herbicide applied to annual and perennial broadleaf weeds in corn, small grains, sugarcane, asparagus, pastures, noncropland areas (e.g., fence rows, roadways & wasteland).
75-71-8	Dichlorodifluoromethane	Refrigerant, aerosol propellant, degreasing and solvent uses.
75-71-8	1,3-Dinitrobenzene	Synthetic substance used in explosives and a by-product of trinitrotoluene (TNT) production.
123-91-1	p-Dioxane (or 1,4-Dioxane)	High Pressure Liquid Chromatography solvent, additive to certain chlorinated solvents. Used as a solvent in oils, resins, dyes, and waxes.
2691-41-0	HMX (or Cyclotetramethylenetetranitramine)	Industrial and military explosives uses.
98-82-8	Isopropylbenzene (Cumene)	Solvent and catalyst for acrylic- and polyester- resins. Found in certain aviation fuels (especially high octane). Used as a paint and lacquer thinner and in the production of styrene, phenol and acetone.
93-65-2	2-Methylnaphthalene	Used in vitamin K production, insecticide, pesticide additive, and as a dye carrier.
121-82-4	RDX (or Cyclonite)	Pesticide, plastic explosive, and detonator uses.
93-72-1	2,4,5-TP (Silvex)	Herbicide and plant growth regulator.
75-69-4	Trichlorofluoromethane	Fire extinguishers, aerosol propellant (medical aerosols), and refrigerant.
99-35-4	1,3,5-Trinitrobenzene	Explosives.
118-96-7	2,4,6-Trinitrotoluene	Military explosives.
93-65-2	MCCP (mecorop)	Pesticide/Herbicide
14797-73-0	Perchlorate	The explosive component of rocket fuel.

Proposed TACO Amendments Will Affect Most Sites Currently in SRP in Illinois (Con't.)

Remediation Objectives are Lower – Especially for Phthalate Containing Chemicals

Remediation objectives are extensively modified in the Proposed Amendments to conform to the proposed Groundwater Quality Standards and current toxicity data. The net result: many remediation objectives are lower (more stringent), particularly for phthalate-containing chemicals. For example, Illinois EPA proposes lowering the Residential Tier 1 Outdoor Inhalation Remediation Objective for Di-n-octyl phthalate decreased from 10,000 mg/kg to 16 mg/kg. Careful review of Appendix A Tables A and B, is a must.

Conclusion

Owners of remediation sites and the engineers advising them should carefully review the Proposed Amendments to TACO. The Proposed Amendments will have broad implication to sites currently seeking closure pursuant to TACO. Closed sites in possession of NFRs are not free from concern, as the Illinois EPA could re-open closed sites to address the indoor inhalation pathway, if site-specific information demonstrates a threat to human occupants of a building.

About the Author

Lawrence L. Fieber, PG is a Principal in the Environmental Practice and manager of the Chicago Loop office of Burns & McDonnell Engineering Company. His email and telephone contact information is: LFieber@BurnsMcD.com and 312-223-0920 ext. 2239.

(Footnotes)

¹October 11, 2007, Illinois EPA presentation to the Consulting Engineers Council of Illinois

Spill Prevention, Control and Countermeasure (SPCC) Regulation Workshop

EPA Regions 5 and 7 plan to co-host a 4-hour workshop in January 2009 to provide information about the Spill Prevention, Control and Countermeasure (SPCC) regulation (40 CFR Part 112) requirements for oil storage. This **FREE** workshop will be broadcast via satellite and the Dish network. If your facility has an aggregate above ground storage tank (AST) capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons, and there is a reasonable chance that a discharge of oil from your facility may enter surface waters of the U.S. or adjoining shorelines, you may be required to prepare and implement an SPCC Plan. This workshop will help further your understanding of: the requirements for the preparation, implementation and amendment of an SPCC Plan; required inspections, testing and record keeping; training and security requirements; secondary containment and impracticability; qualified facilities; applicability; transfer operation considerations; environmental equivalence; and the 2007 SPCC proposed rule amendment. The last hour of the broadcast is a Question and Answer session during which participants may call a toll-free number and speak to the co-hosts live. The workshop will be broadcast via satellite to at least three locations per state in Region 5 (IL, IN, MI, MN, WI, OH) and on the Dish Network. This workshop is FREE but reservations are **required** so that participants can be contacted about the details of the broadcast locations and Dish stations. Registration will begin online, by fax or by mail sometime towards the end of November. The workshop will also be available for download from the registration website after the event for up to three months. Please refer to the website www.epa.gov/region5oil (after November 3, 2008) for the web address and the date that the broadcast website will be open for registration and information. Contact: Dr. Barbara A. Carr, 312-886-7187, carr.barbara@epa.gov.

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Member News



Air Quality Manager

Environmental firm has an opening for an Air Quality Manager. Duties include operations of the Air Group, a client manager and point of contact for air permitting projects. Provides oversight and Quality Assurance/Quality Control for projects, assists firm principals in development of client base and marketing strategies, and is responsible for budget analysis and scheduling of projects within the Air Group. Additional tasks performed by the Air Quality Manager include preparation of air quality permits required by current legislation, particularly in the area of manufacturing, and power generation. M.S. in Engineering or Chemistry and ten years of air related experience required. Email resume to mwunderlich@huffnhuff.com



Burns & McDonnell is pleased to announce the expansion and relocation of the Chicago loop office. As of September 8, 2008 the new contact information is:

Burns & McDonnell
210 S. Clark Street, Suite 2235
Chicago, IL 60603
Phone: 312-223-0920
Fax: 312-223-9664

The views expressed in this newsletter are those of the author and are not necessarily shared or supported by the Lake Michigan States Section of the Air & Waste Management Association