Wisconsin
Brownfields Study Group

FRIDAY, MAY 10, 2019
1-855-947-8255 / 6612 745#

WIFI: DNR GUEST
PASSWORD: GOODAYR&H20
Welcome / Intros / Agenda Repair

MARK THIMKE & DAVE MISKY
Brownfields Continuing Success – *Eastbay Sports Complex*

Mark A. Thimke

Brownfields Study Group Meeting
May 10, 2019
Holtz & Krause Landfill (1957-1978)

- Municipal/industrial landfill – 1957
- Built in low area of Wausau in area of three sloughs – stagnant water
- 1978 – Wisconsin Supreme Court case compelling closure
- Threatened Superfund listing
Eastbay Sports Complex
Eastbay Sports Complex – 2019

- May 3, 2019 – Mountain Bay Cup Soccer Tournament
  - 113 soccer teams
  - 5,000 people
  - 2,050 hotel rooms booked
  - Economic impact - $1.3 to $1.4 million for one event
Assistant Dep. Secretary
Todd Ambs
RR Program Director
Christine Haag

WILL CONTINUE:

• LONG-STANDING CULTURE OF INNOVATION
• COMMITMENT TO PROGRAM IMPROVEMENT
• COLLABORATIVE WORKING RELATIONSHIP WITH STAKEHOLDERS
• THINKING STRATEGICALLY
• TAKING DELIBERATE ACTION
• SUPPORTING OUR DEDICATED STAFF AND MANAGEMENT TEAM
RR Program Director
Christine Haag

SHORT TERM PRIORITIES:
• EMERGING CONTAMINANTS
• FILL VACANCIES
• NR 700 RULE UPDATES
• ACT 369
RR Program Director
Christine Haag

MID TERM PRIORITIES:

• EMERGING CONTAMINANTS
• RULE IMPLEMENTATION
• SUCCESSION PLANNING AND KNOWLEDGE TRANSFER
• END OF PECFA – PECFA 2.0?
• NEXT ROUND OF STRATEGIC PRIORITIES
• COMMUNICATION AND COLLABORATION!
Report Out

ACT 369

- PLANS FOR RR GUIDANCE
- OMB DIRECTIVE
• Workload analysis
  • Definition of guidance expanded
  • RR would need 17 FTE for 1 year focused solely on this effort
• Department-wide process to prioritize and triage workload for LRB (in development)
• BSG’s prioritization will be considered along with other factors (open rate, etc.)
• Prior completion of 21-day comment period – repeat
Act 369 – Guidance Update

- Litigation over Act 369 continues
  - Wisconsin Supreme Court to hear oral arguments on May 15; decision likely issued quickly
  - Preliminary ruling – indicates support for Act 369
  - Trial in Dane County Circuit Court on one of lawsuits – Wisconsin Supreme Court decision may pre-empt

- Brownfields Study Group list provided to WDNR

- Note July 1 date
Federal Guidance

- OMB directive effective May 11, 2019
- Federal guidance subject to OMB review as to whether it is a “major rule” under Congressional Review Act
- Delay in issuance of guidance/increased procedural process
PFAS

• PFAS ASSURANCES INITIATIVES
PFAS

- RR PROGRAM EMERGING CONTAMINANTS TEAM LEADER – BRIDGET KELLY
Bridget Kelly

- Previous position - Drinking Water and Groundwater program Lead and Copper Rule Coordinator for the last 2.5 years.
- Prior to joining DNR in 2016, Bridget worked in consulting and aggregates and was also an Associate Lecturer at University of Wisconsin – Eau Claire.
- Bridget grew up in Eau Claire, where she earned her BS in Geology from UWEC; she earned her MS in hydrogeology from the University of Nebraska – Lincoln.
PFAS

- ENVIRONMENTAL MANAGEMENT DIVISION
PFAS COORDINATOR – JAY NIELSEN
Jay Nielsen

- Previous positions include work with
  - US Centers for Disease Control
  - National Center for Environmental Health
  - New York City’s Mayor’s Office
  - Community Relations Coordinator for Law Office
  - Environmental Research Associate at Columbia University

- Education
  - BS in Environmental and Public Health from Columbia University
  - MA in Environmental Science and Policy from UW Eau Claire
PFAS

• HISTORY & USE SUBGROUP
History & Use Subgroup

Approximately 16 participants in person and 34 phone lines active

Participants in person and by phone included

- Consultants
- Attorneys
- City of Madison
- Citizen groups
- Other DNR Agencies
- Government Relations
- RR Program Staff
History & Use Subgroup

The content of the information shared was primarily from ITRC fact sheets and work products and information obtained during the ITRC workgroup/meeting/training Fassbender attended on March 25-29, 2019.

The presentation included:

• A review of ITRC existing resources and upcoming tools
• Regulatory Update
  • How many states have standards?
  • EPA Hazardous Substance Listing
• An overview of the history of PFAS development and use
• Environmental awareness history
• Replacement chemistry
History & Use Subgroup

- Major sources of PFAS in the environment
  - Aqueous Film Fighting Foam (AFFF)
  - Production and Manufacturing
  - Waste Water Treatment Plants
  - Landfills
  - Use of consumer products
- Resources for information
  - ITRC
  - US EPA Clu-In
  - Specific scientific articles
  - Identification of facilities that produced or used PFAS
  - NAICS and SIC Codes – benefits and difficulties
- Other State evaluation methods
  - Michigan – POTW/WWTP sampling and water supply well sampling
  - Minnesota – Industry identification – fire dept surveys, landfill testing, industry risk ranking
  - California – Airport and landfill testing
- Northeastern States – AFFF “recycling” programs
Open forum Discussion

Other information available

- Michigan PFAS source list – used as basis for POTW/WWTP sampling project

Other topics of Interest

- WI recognition of PFAS as hazardous substance
- Destruction technology - difficulty with incinerators not burning PFAS waste long enough or hot enough to degrade the PFAS
- PFAS Toxicity information
- Need for list of potential sources for PFAS; Which PFAS come from which industries
- PFAS evaluation method discussion (i.e. DOD method vs. EPA method 537.1 vs. others)
- ASTM process updates for Phase I’s and II’s
PFAS

• FATE & TRANSPORT SUBGROUP
Fate & Transport Subgroup

22 participants in person, 37 Skype connections, over 30 by Phone

Participants included

- Consultants
- Attorneys
- City of Madison
- Citizen groups
- Other Agencies/Programs – DNR (Waste and Materials Management), UW-MKE, UW-Madison, USGS
- Government Relations
- RR Program Staff
Fate & Transport Subgroup

The content of the information shared was obtained primarily from ITRC fact sheets and work products related to Fate and Transport of PFAS.

The presentation included:

- A review of the four major sources of PFAS and common Conceptual Site Models including:
  1) AFFF
  2) Industrial
  3) Landfills
  4) WWTPs

- A review of the different fate and transport mechanisms influencing PFAS movement in the environment, including:
  - Partitioning (i.e. hydrophilic vs. lipophilic)
  - Advection, Dispersion, Diffusion, Deposition, Leaching
  - Surfactant Properties and Micelle Formation
Fate & Transport Subgroup

- A review of the different transformation mechanisms influencing PFAS movement in the environment, including:
  - Abiotic and biotic transformation
- A review of the different mediums where PFAS can occur:
  - Air
  - Soil and Sediment
  - Groundwater and Surface Water
  - Biota and Bioaccumulation (i.e. plants, invertebrates, fish, humans)
- Identify potential additional subgroup topics to be addressed – what topic areas need to be discussed in detail
  - Review of ITRC’s Technical Document Outlines - detailed information for each of the different fate and transport processes is covered in the ITRC fact sheets (i.e. Environmental Fate and Transport Processes, Media, Site Characterization)
Fate & Transport Subgroup

Open forum Discussion

Discussion: Screening for PFAS - A robust dialogue was carried out by the group

- a number of chemists and consultants were present with much information on the chemical characteristics of different PFAS compounds and experience in testing for PFAS:
  - Some feel we should not move forward until EPA establishes a standard method
  - Others feel EPA is not moving fast enough and that we cannot wait for them
  - Group seeks guidance on PFAS remedial goals
Fate & Transport Subgroup

Other topics of Interest

- Development of a source list resource – which types of operations are likely to contain PFAS and should be tested/evaluated during Phase I/II process
- Development of a source list resource – identify which types of PFAS came from which industry
- Develop a screening process that would be useful to identify if a site is a PFAS site (i.e. a quick screen to guide redevelopment projects)
- ASTM process updates for Phase I’s and II’s
- Toxicity information
- Testing methods – what method will produce consistent results
- Testing methods – what method will state require in the future
Fate & Transport Subgroup

Other topics of Interest (cont.)

- Development of a priority list to determine where testing is likely needed
  - Start list by removing types of industry from the list that are NOT a known source
- Development of a plan to determine potential exposure at likely high-risk sites
- BSG intends to move forward on a ‘Phase i/Phase II’ type addendum to handle
- Report on any dialogue that is happening between the states – stakeholders are interested in what is happening in Region 5; what is happening nationally
- Establish a subgroup for Waste and Materials Management
PFAS

• LAB ANALYSIS SUBGROUP
Lab Analysis Subgroup

- List of compounds has been selected
- 36 total compounds
- 13 Carboxylic Acids
- 12 Sulfonic Acids
- 7 Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols
- 4 Replacement Chemicals
  - HFPO-DA (also known as GenX)
  - DONA (also available as the ammonium salt ADONA)
  - 9Cl-PF3ONS
  - 11CL-PF3OudS
Lab Analysis Subgroup

- Subgroup includes 14 interested Laboratories
  - ½ currently certified in Wisconsin for analyses other than PFAS
  - ½ currently conducting PFAS analyses
- Developing SOP for “WI PFAS SOP” method – Will not be identified as a 537.1 modified method
- Will require LCMS/MS
- Scheduled to offer certification in late summer
- Begin auditing laboratories about 1 month after offering certification
PFAS

• ASTM – PFAS AS A HAZARDOUS SUBSTANCE
PFAS as Hazardous Substance

- PFAS not currently on Federal Hazardous Substance list
- Proposing modification to Wis. Admin. Code for VPLE to require ASTM Phase I plus other hazardous substances under Wisconsin’s definition.

- *Hazardous substance*” means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the department. See Wis. Stats. § 292.01(5)
Report Out

PFAS

• DNR / DHS – NR 140 UPDATE
NR 140 Update

- On track for draft recommendations to DNR by Mid 2019
  - 27 compounds including – 2 PFAS
    - PFOA
    - PFOS
- Cycle 11 Request Received
  - Includes 40 compounds – 34 PFAS
  - Currently developing a timeline for when review of Cycle 11 will be complete.
Report Out

PFAS

• MADISON STUDY
Madison Study

- Pilot project to review Land Uses
- Evaluate potential sources of PFAS within capture zones of Wells 15 and 16 in Madison
- Determine the source of PFAS in Well 16, which provides water to part of Madison’s west side, and Well 15, which helps serve the city’s northeast side.
- Review past and present land uses near wells
- Inventory former industrial and commercial activities
- The DNR plans to spend an estimated $30,000 on pilot project
- Estimated completion time – mid-summer
Report Out

ACT 70
Act 70 Update

- EDGE Program – Brownfields manufacturing incentives
  - Green Tier ROP in place and available
  - First applicant moving forward
  - Discussion with Deloitte on developing criteria for new manufacturing plant incentives
  - Working on Green Tier Charter approach for industrial parks

- Potential legislative cleanup on Act 70 – ETIDs
Report Out

NR 700 RULES – REVISIONS / TOPICS / WEBSITE
NR 700 rule revisions

Rule Development Phase

- Rulemaking process timing & rule drafting
- Rule Development Meetings
- Website: [https://dnr.wi.gov/topic/Brownfields/RuleChanges.html](https://dnr.wi.gov/topic/Brownfields/RuleChanges.html)
- Email: DNRRNR700input@wisconsin.gov
- Last meeting: May 7, 2019
- Next meeting: June 4, 2019
Lender Subgroup - PFAS
Lender Liability Subcommittee

- Prior Brownfields Study Group subcommittee reviewed Wisconsin lender liability provisions
- Bank practices inconsistent with lender protections
- Brownfields Study Group did not pursue; not a Brownfields issue
- Now – PFAS
- Re-look at lender liability to avoid Brownfields lending freeze
Legal Update

- RCRA CITIZEN SUIT
- CERCLA – COURT OF APPEALS DECISION
- ACT 21
RCRA Citizen Suits – Cleanup

- *Liebhart v. SPX Corp.* – 7th Circuit Court of Appeals (Mar. 6, 2019)
- Watertown, Wisconsin case – manufacturing building demolition
- RCRA – “imminent and substantial endangerment”
- Issue – whether required to show:
  - Harm *already* suffered or
  - Ongoing threat of *future* harm
- Adopted – threat of future harm sufficient
- No requirement to show contamination above agency threshold
- Show contaminants have potential to substantially threaten health in future
- Redevelopment – control of off-site impacts
CERCLA Liability – Sale of Buildings

- Manufacturing building with PCBs sold to demolition company
- Demolition company not told of PCBs – contamination
- Sale of building – “arrangement for disposal” under CERCLA
- Lesson – potential cleanup liability for demolition “gone bad”
Act 21 Update – § 221.10(2m)

- Act 21 – limits agency authority to what is explicitly required or explicitly permitted by statute or rule
- Two cases going through courts on scope of Act 21
- Both are with the Wisconsin Supreme Court
- Prior Attorney General supportive of narrow interpretation of agency authority
- Attorney General Kaul reversing position with Wisconsin Supreme Court; Legislature retaining separate counsel for narrow interpretation
- Awaiting definitive court opinion
Lunch Break

Courtesy of Kenn Anderson / Aon
Legislative & Budget Initiatives

- ACT 70 IMPROVEMENTS
Act 70 Improvements

EDGE Pilot - Wis. Stats. § 285 (see issue paper)

- Clarify that air permit could be for a new or existing source at an expanded or new facility
- Make clear that the pilot can apply to any property that obtains VPLE Certificate of Completion

Environmental Remediation Tax Incremental Financing - Wis. Stat. § 66.1105 (20m)

- Clarify requirements for investigation certified by DNR and role of DNR
- Does there need to be investigation and remedial action plan for every parcel in the district?
Legislative & Budget Initiatives

• VPLE LONG-TERM SOLUTION
VPLE Long Term Solution

- Modify VPLE to consider emerging contaminants and scope of liability protection (see issue paper)
- Other possible VPLE issues:
  - Allow DNR to require updated Phase I, Phase II and Site Investigation
  - Insurance requirement for natural attenuation for substances without a NR 140 enforcement standard
  - Clarification of VPLE sediment requirements
- Task VPLE Subgroup to develop recommendations
Legislative & Budget Initiatives

- VARIOUS UPDATES TO WIS. STAT. 292
Updates to Wis. Stats. 292

• Improvements to Umpire Process in Wis. Stats. § 292.35 (see issue paper)

• Clarify language in Wis. Stats. § 292.11(7)(c) regarding DNR order authority that refers to the DATCP agriculture chemical cleanup program law
Legislative & Budget Initiatives

• BROWNFIELD FUNDING PROPOSAL
Legislative & Budget Initiatives – PECFA 2.0

• PECFA 2.0
Legislative & Budget Initiatives – PECFA 2.0

- Gov’s Budget - Extend PECFA to June 30, 2021
- PECFA sunset will make WI one of only a few states without a state fund
State Tank Funds

REGION 5 HIGHLIGHTS FROM STATE FUND – FINANCIAL RESPONSIBILITY TASK FORCE, TANKS PUBLICATION
State Fund Survey Results 2017

- Based on responses to a survey conducted by the Vermont Department of Environmental Conservation.
- Updated Spring/Summer 2018.
- ASTSWMO Website August 24, 2018 Publication
<table>
<thead>
<tr>
<th>State</th>
<th>Fed Reg USTs</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td></td>
<td>Petroleum USTs</td>
</tr>
<tr>
<td>Indiana</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td></td>
<td>Refined Petroleum USTs</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Yes</td>
<td>Other USTs, Heating Oil, ASTs</td>
</tr>
<tr>
<td>Ohio</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Yes</td>
<td>Other USTs, Some Heating Oil, Some ASTs</td>
</tr>
</tbody>
</table>

Tanks Covered by State Programs
### 2017 Number of Covered Tanks

<table>
<thead>
<tr>
<th>State</th>
<th>Covered Tanks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>5,389</td>
</tr>
<tr>
<td>Indiana</td>
<td>4,175</td>
</tr>
<tr>
<td>Michigan</td>
<td>6,700</td>
</tr>
<tr>
<td>Minnesota</td>
<td>10,400*</td>
</tr>
<tr>
<td>Ohio</td>
<td>7,131</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>4,300</td>
</tr>
</tbody>
</table>

* Active regulated UST and AST sites (unregulated and former tank sites also covered)
<table>
<thead>
<tr>
<th>Corrective Action</th>
<th>Indiana</th>
<th>Michigan</th>
<th>Minnesota</th>
<th>Ohio</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old releases newly discovered at active tank sites</td>
<td>![Red Explosion]</td>
<td>![Red Explosion]</td>
<td>![Red Explosion]</td>
<td>![Red Explosion]</td>
<td>![Red Explosion]</td>
</tr>
</tbody>
</table>

**Fund Coverage**
<table>
<thead>
<tr>
<th>State</th>
<th>Deductible Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>$5,000 for new releases reported on and after June 8, 2010. For releases reported prior to June 8, 2010, $10,000; $15,000; $50,000; or $100,000.</td>
</tr>
<tr>
<td>Indiana</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Michigan</td>
<td>$2,000 for owners or operators of 7 USTs or less. $10,000 for owners or operators with 8 or more USTs</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Reimbursement of 90% of eligible costs. Applicants responsible for 10% of eligible costs.</td>
</tr>
<tr>
<td>Ohio</td>
<td>$55,000 standard; $11,000 reduced</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>$2,500 - $5% of coverage</td>
</tr>
</tbody>
</table>
Average Amount paid per discharge

- Illinois: $133,309
- Indiana Total: $273,553
- Indiana FY2017: $524,638
- Minnesota includes UST and AST
- Michigan’s Program was too new to report
- Ohio: $110,802
- Wisconsin: $140,000
Releases greater than $1M

- Indiana: 162 releases
- Illinois: 85 releases
- Minnesota: 6 releases

Michigan, Ohio and Wisconsin did not report or reported 0 releases exceeding $1M in reimbursable expenses.
## Cost Control Measures

<table>
<thead>
<tr>
<th>State</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>None</td>
</tr>
<tr>
<td>Michigan</td>
<td>Schedule of Costs, Competitive bidding, Pre-approval of excavation costs, List of ineligible costs</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Fee schedule. Competitive bidding. Pre-approval of active remediation costs. Use of standard forms for proposing/invoice costs.</td>
</tr>
<tr>
<td>Ohio</td>
<td>Use standard forms for site assessment and corrective action plans require pre-approval of cleanup plans and/or budget limit overhead paid use pay-for-performance cover cleanups based on site-specific risk-based end points</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Usual and customary cost standards</td>
</tr>
</tbody>
</table>
Ohio reported no per gallon fee for petroleum and annual Tank Fees of $400 for $55,000 deductible and $600 for $11,000 deductible.

Indiana Reported a per gallon fee plus an annual fee of $90/tank.
Michigan reported $20M for reimbursement fund.
<table>
<thead>
<tr>
<th>State</th>
<th>Time Limit for submitting costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>One year from the date of issuance of No Further Remediation Letter.</td>
</tr>
<tr>
<td>Indiana</td>
<td>Nine months after &quot;No Further Action&quot;</td>
</tr>
<tr>
<td>Michigan</td>
<td>None</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Within seven years of work being performed.</td>
</tr>
<tr>
<td>Ohio</td>
<td>One year</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>6 months after cost are incurred (This change in the law took effect 1 Feb 2016)</td>
</tr>
<tr>
<td>State</td>
<td>Status</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Illinois</td>
<td>Positive Balance</td>
</tr>
<tr>
<td>Indiana</td>
<td>Solvent</td>
</tr>
<tr>
<td>Michigan</td>
<td>Financially sound</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Financially sound</td>
</tr>
<tr>
<td>Ohio</td>
<td>Supported solely by annual tank fees, revenue bond proceeds, if any, and interest income.</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Sufficient funding until 2020.</td>
</tr>
</tbody>
</table>

**Current Status of Fund**
State Fund Used for Financial Responsibility requirements?

<table>
<thead>
<tr>
<th>State</th>
<th>Fund for FR?</th>
<th>Voluntary?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>Yes</td>
<td>Yes (95%)</td>
</tr>
<tr>
<td>Michigan</td>
<td>Yes</td>
<td>32%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ohio</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
U.S. EPA Update

JON GROSSHANS - EPA
BSG Standing Items

• WMC – LANE RUHLAND
• WEDC – JASON SCOTT
• BSG MEMBERSHIP & STRUCTURE
• NEXT MEETING
Confirm Assignments & Adjourn

MARK THIMKE & DAVE MISKY