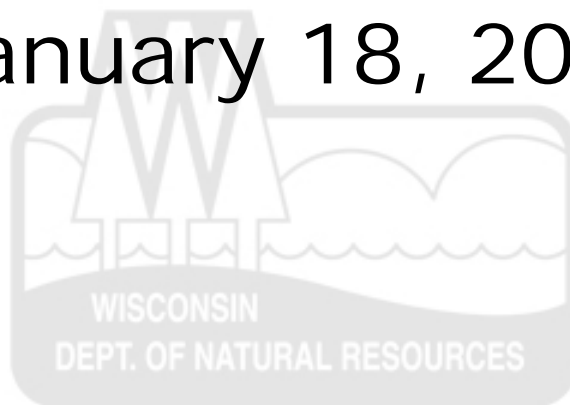


# NR 700 Technical Focus Group Meeting

Including Contaminated Material External  
Advisory Group and PECFA Updates

January 18, 2017



# Overview

- DHS reassessment of PAHs and recommendations
- Proposed updates to RCL calculator
- NR 712 Signature Requirements
- Required Document Submittal
- Case Closure Reconsideration Process
- Vapor Intrusion update – Commissioning and O&M
- Coming Soon – Site Investigation Guidance
- Post Closure Modification guidance update
- VPLE Q&A Guidance update
- FYI – New VPLE insurance update
- PECFA status update
- NR 718/LHE/Clean Soil Guidance update
- PAH risk assessment and Background Study
- Sediment Standards Update
- 2017 Webinar introduction
- 2017 Consultant Days – hold the date

# Revisions to Direct Contact RCLs for PAH Compounds in Soil

*Collaborative effort with the  
Wisconsin Department of Health Services  
(DHS)*





## Current PAH Assessment Criteria:

- Determine RCLs using the default assumptions in NR720.12(3), or alternative assumptions specifically approved under NR 720.12(2)
- NR720.12(1) target excess cancer risk thresholds:
  - $1 \times 10^{-6}$  for individual compounds, and
  - $1 \times 10^{-5}$  for cumulative risk

Default assumptions/risk thresholds incorporated into current RR-890 site specific calculator. Assesses dermal, inhalation and ingestion **direct contact pathways**.

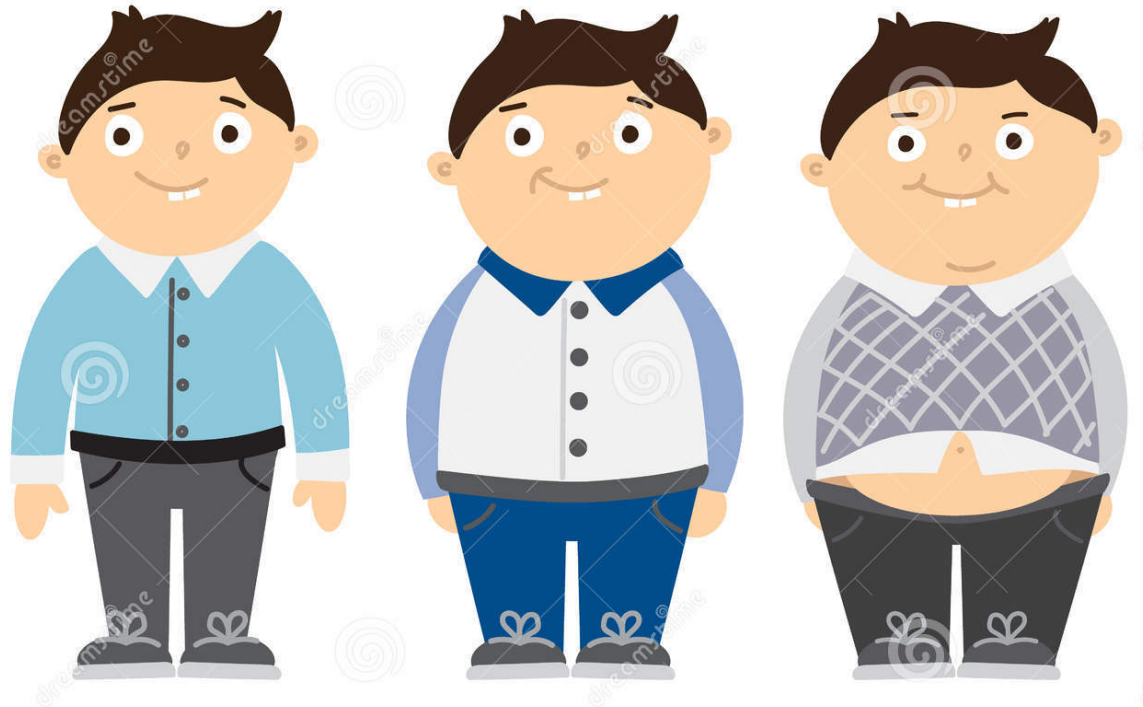


## **DHS Observations:**

- PAHs occur in soils as complex mixtures of compounds, so direct contact exposure is always to the mixtures
- Carcinogenic PAH compounds (cPAHs) share similar health effects in regards to human toxicology
- PAHs do not bioaccumulate
- And ...

# People Size

- Exposure assumptions related to adult body size and adult exposure duration need updating



Download from  
**Dreamstime.com**

This watermarked comp image is for previewing purposes only.





## **DHS Recommendations:**

- cPAHs more effectively evaluated as a mixture rather than on an individual compound basis, so assess exclusively using the cumulative  $10^{-5}$  cancer risk threshold
- Limited to cPAHs; other carcinogenic contaminants would continue to be assessed on an individual and cumulative risk basis
- Update RR-890 calculator to reflect changes in EPA risk assumptions regarding adult body size and exposure duration



## **Proposed Changes to the RR-890 calculator:**

- ✓ Seven of nine currently regulated cPAHs will be assessed *exclusively* using the cumulative  $10^{-5}$  risk threshold
  - Carcinogenic effect of each determined by relative potency factors (RPFs) related to Benzo(a)pyrene
  - Will no longer assess relative to the  $10^{-6}$  risk threshold
- ✓ Two exceptions: Naphthalene and 1-Methylnaphthalene
  - No RPF; toxicology factors independent of B(a)p
- ✓ Change exposure assumptions to be consistent with EPA





## **What will not change:**

- Overall  $10^{-5}$  cumulative risk assessment; *all* cPAHs and *all* other carcinogenic, direct contact risk compounds (e.g., applicable VOCs) are summed
- How Naphthalene/1-Methylnaphthalene are assessed
- How Hazard Index is assessed
- How GW pathway is assessed
- *Non-detect values shall be entered at MDL levels.*



## **Practical Implications....**

in regards to Benzo(a)pyrene and Dibenzo(a,h)anthracene, which tend to drive direct contact RCL exceedances in moderately impacted soils:

### **Relative Effects (based on data review):**

Exclusive  $10^{-5}$  cumulative risk for seven cPAHs:

Approx. 7-10 fold increase in B(a)p concentrations that will fall below RCLs, depending on relative PAH mixture

Updated exposure assumptions:

<10% increase

Use full MDL levels for NDs:

Uses approx. 15-20% of overall cumulative  $10^{-5}$  risk capacity, depending on actual MDLs and extent of analytical interference. For some interference, percentage can be higher

No change for Naphthalene and 1-Methylnaphthalene:

little to no practical effect



## Caveats to Practical Implications:

When additional, potent cPAHs are regulated, *effective* RCL threshold values will typically decrease

- If more risk slices are summed, it tends to reduce the size of each slice since overall  $10^{-5}$  threshold remains unchanged.

When Background Threshold Values (BTVs) for cPAHs are established, *effective* RCL threshold values will likely tend to increase

- If treated like Arsenic, concentrations below BTV will not add to cumulative risk assessment



## Exposure Assumption Changes:

	Abbr.	Units	NR 720	EPA Calculator Default
Hazard Quotient	HQ	unitless	1	1
Target Risk	TR	unitless	$1 \times 10^{-6}$	$1 \times 10^{-6}$
Exposure Frequency-resident child	EF <sub>res-c</sub>	d/yr	350	350
Exposure Duration-resident child	ED <sub>res-c</sub>	yr	6	6
Exposure Duration-resident adult	ED <sub>res-a</sub>	yr	24	20
Soil Ingestion Rate-resident child	IRS <sub>res-c</sub>	mg/d	200	200
Soil Ingestion Rate-resident adult	IRS <sub>res-a</sub>	mg/d	100	100
Particulate Emission Factor	PEF	m <sup>3</sup> /kg	1.43E+09	1.56E+09
Volatile Exposure Rate	VF	m <sup>3</sup> /kg	Contaminant specific.	Contaminant specific.
Exposure Time- resident	ET <sub>res</sub>	hours/day	24	24
Surface Area Exposed-resident child	SA <sub>res-c</sub>	cm <sup>2</sup>	2,800	2,373
Surface Area Exposed-resident adult	SA <sub>res-a</sub>	cm <sup>2</sup>	5,700	6,032
Skin Adherence Factor-resident child	AF <sub>res-c</sub>	mg/cm <sup>2</sup>	0.2	0.2
Skin Adherence Factor-resident adult	AF <sub>res-a</sub>	mg/cm <sup>2</sup>	0.07	0.07
Body Weight- resident child	BW <sub>res-c</sub>	kg	15	15
Body Weight- resident adult	BW <sub>res-a</sub>	kg	70	80
Lifetime	LT	yrs	70	70

*“Supersize me, and can’t stay in one place”*



## **Site Data Review – Illustrates Practical Implications:**

- Summary Comparison Table
- Effects on site with relatively low PAH contamination
- Effects on site with relatively high PAH contamination

## Data Review Summary: DC/Non-Industrial, CR Only, Shallowest Soils

		690 Soil Calculator (current)					
n		exceed 10-6 individual	% exceed	threshold B(a)p conc.	exceed 10-5 cumulative	% exceed	eff. B(a)p conc.
16	Site 1	16	100%	15 ug/kg	11	69%	110 ug/kg
13	Site 2	13	100%	15 ug/kg	5	38%	107 ug/kg
20	Site 3	20	100%	15 ug/kg	17	85%	110 ug/kg
41	Site 4	20	49%	15 ug/kg	1	2%	136 ug/kg
58	Site 5	35	60%	15 ug/kg	22	38%	107 ug/kg
53	Site 6	42	79%	15 ug/kg	16	30%	89 ug/kg
41	Site 7	40	98%	15 ug/kg	24	59%	127 ug/kg
49	Site 8	39	80%	15 ug/kg	28	57%	101 ug/kg

		With Updated EPA Assumptions					
n		exceed 10-6 individual	% exceed	threshold B(a)p conc.	exceed 10-5 cumulative	% exceed	eff. B(a)p conc.
16	Site 1	16	100%	16 ug/kg	9	56%	190 ug/kg
13	Site 2	13	100%	16 ug/kg	4	31%	117 ug/kg
20	Site 3	20	100%	16 ug/kg	17	85%	110 ug/kg
41	Site 4	20	49%	16 ug/kg	1	2%	136 ug/kg
58	Site 5	35	60%	16 ug/kg	21	36%	107 ug/kg
53	Site 6	42	79%	16 ug/kg	16	30%	89 ug/kg
41	Site 7	40	98%	16 ug/kg	23	56%	127 ug/kg
49	Site 8	38	78%	16 ug/kg	27	55%	142 ug/kg

### Notes:

As listed above 10-6 individual and 10-5 cumulative counts are mutually exclusive (i.e., not the "and" as indicated in 720.12).

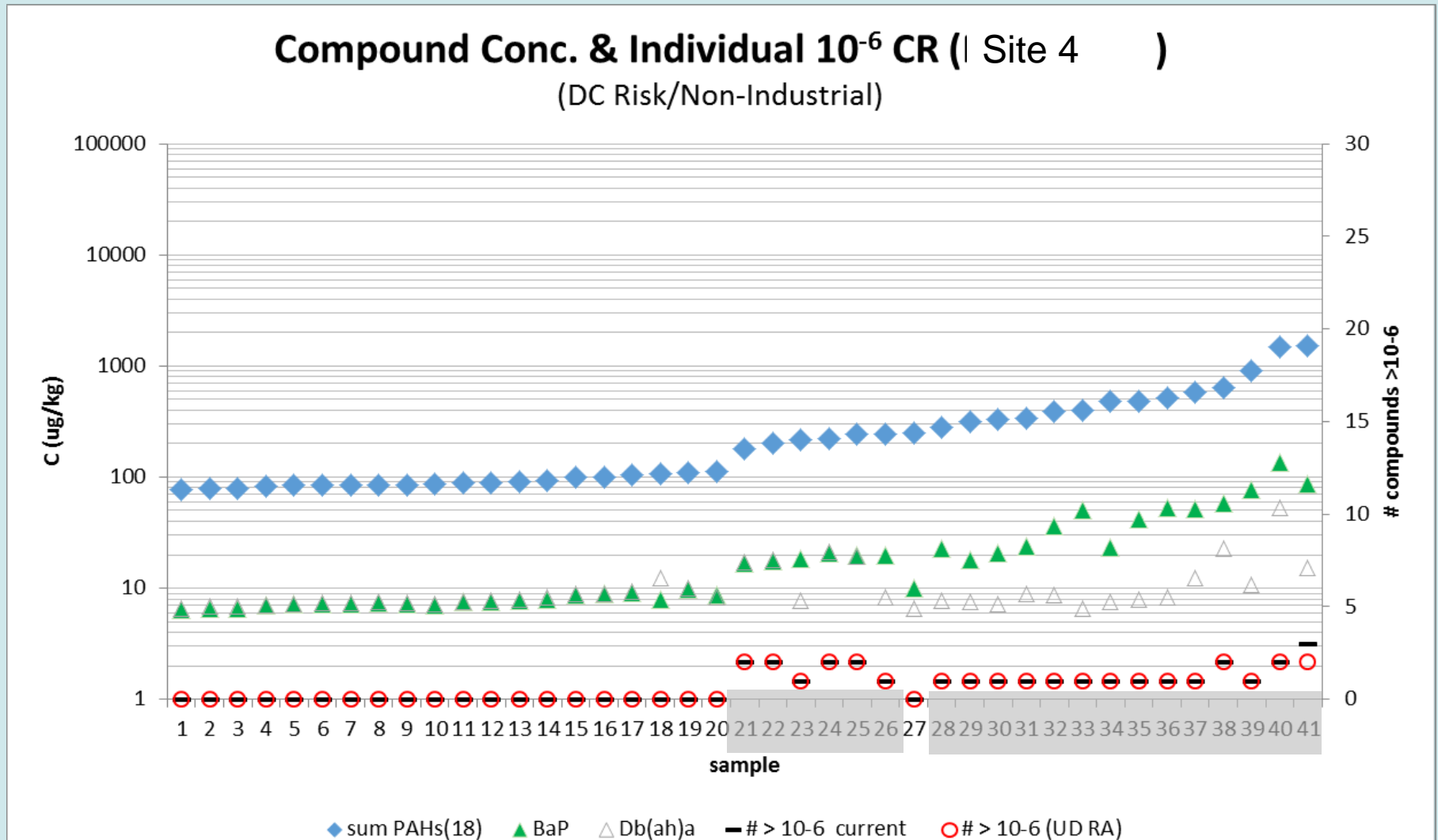
Exceedance counts for individual 10-6 based on single compound trigger.

Results reflect analysis of 18 PAH compounds (w/ 9 having CR risk).

Reference B(a)p conc. for cumulative is the actual B(a)p concentration contained in the first sample exceedance.

# RCL Exceedances – Current Calculator

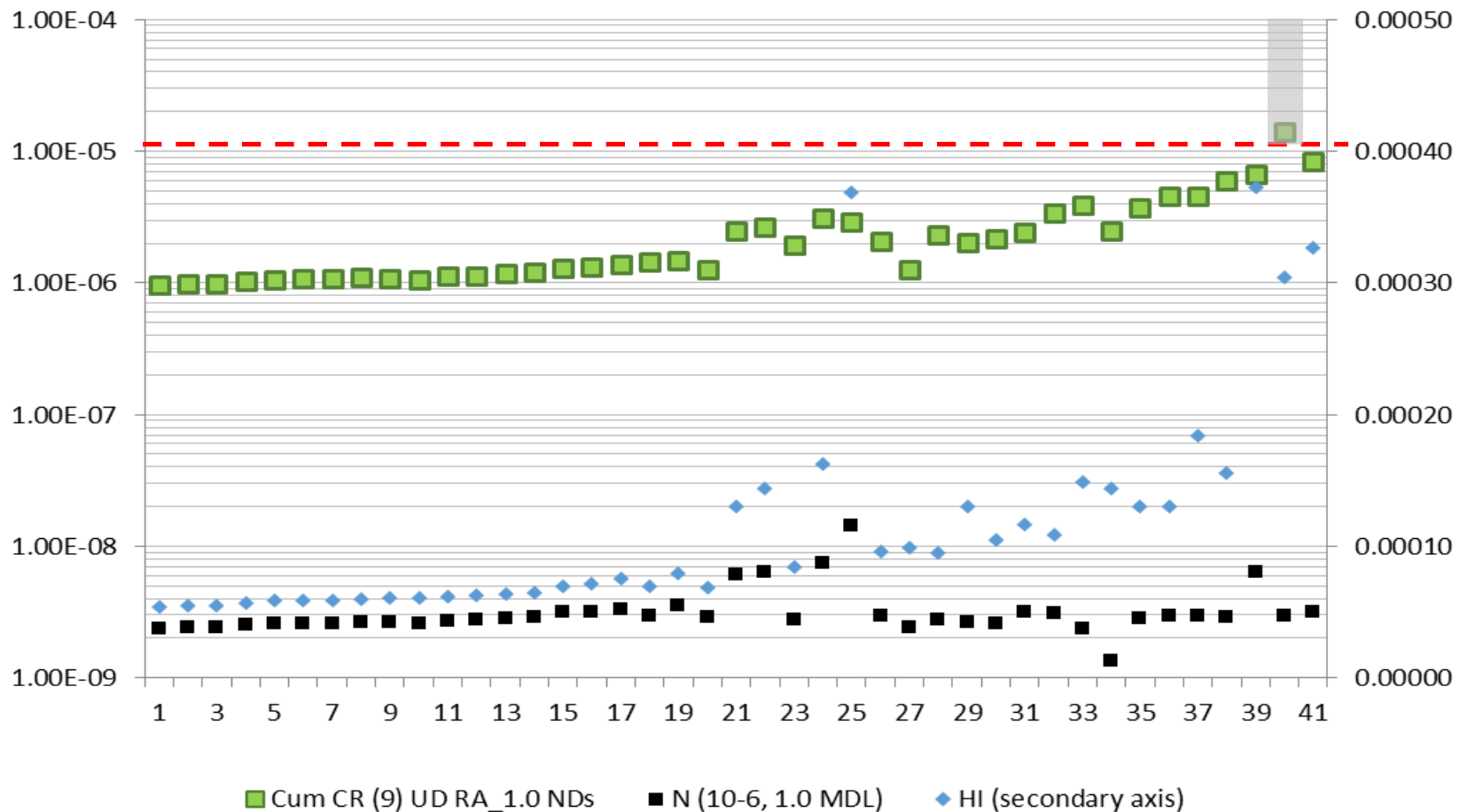
- One PAH compound will trigger – horizontal black dash (i.e., grey shading)
- 49% of samples exceed current  $10^{-6}$  individual compound assessment
- Red circles are  $10^{-6}$  exceedance using updated risk exposures



# RCL Exceedances Using $10^{-5}$ Cumulative Exclusively

- 2% of samples now exceed (gray shading)
- Individual  $10^{-6}$  threshold for Naphthalene shows little risk contribution
- Hazard Index insignificant

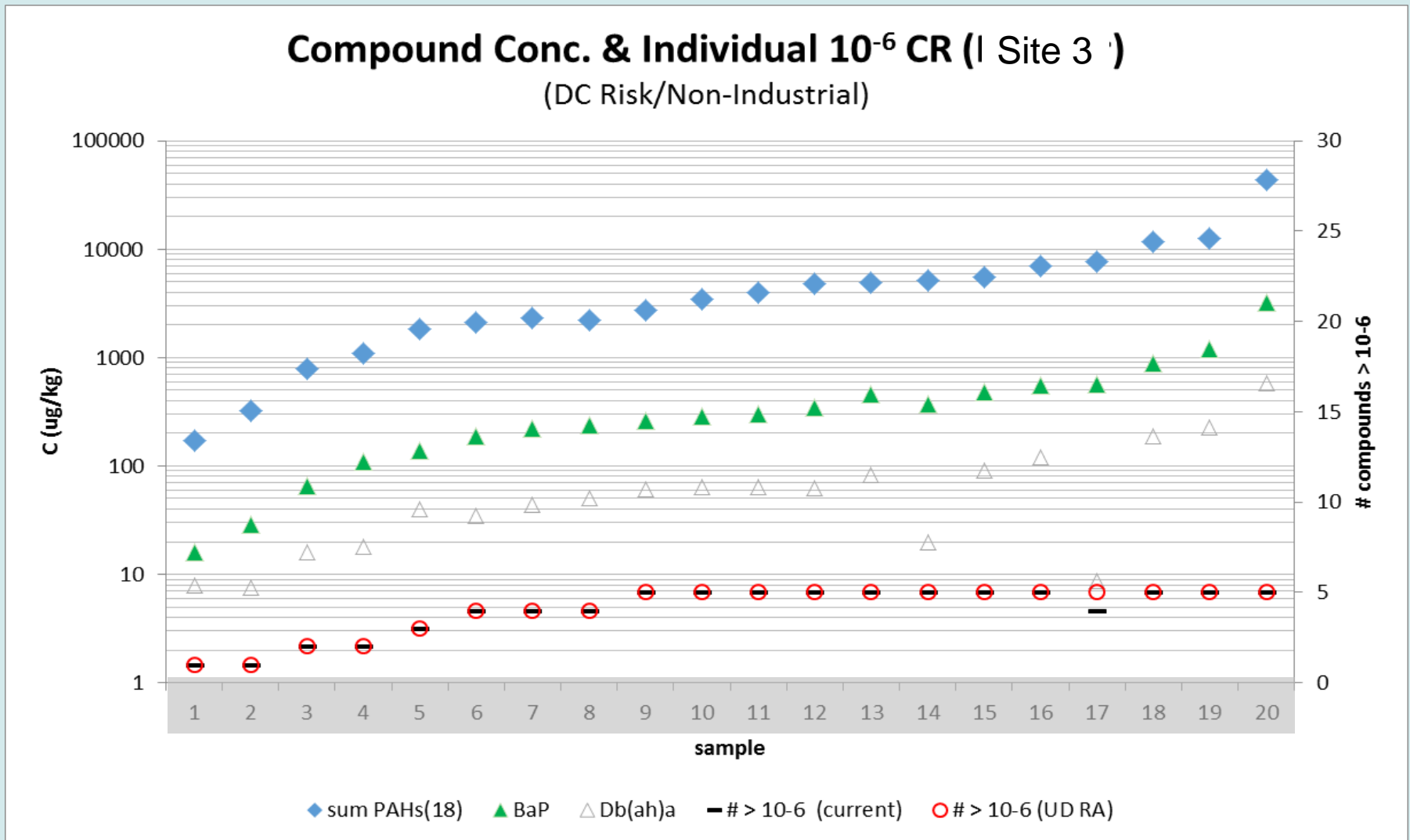
**Cumulative CR, N individual  $10^{-6}$  and HQ ( Site 4 )**  
(DC Risk/Non-Industrial )





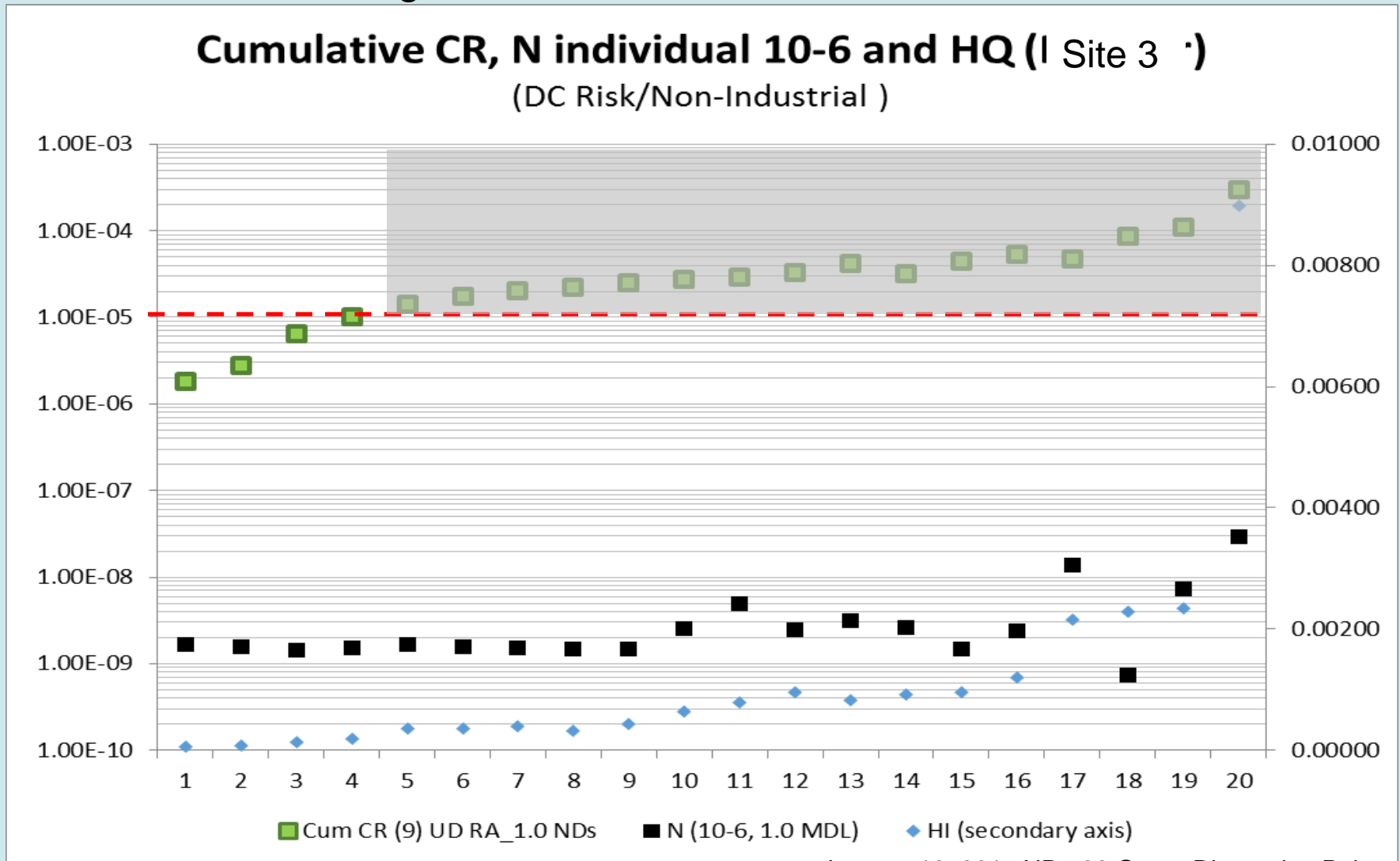
# RCL Exceedances – Current Calculator

- One PAH compound will trigger – horizontal black dash (i.e., grey shading)
- 100% of samples exceed current  $10^{-6}$  assessment
- Red circles are  $10^{-6}$  exceedance using updated risk exposures



# RCL Exceedances Using $10^{-5}$ Cumulative Exclusively

- 85% of samples still exceed (gray shading)
- Individual  $10^{-6}$  threshold for Naphthalene shows little risk contribution
- Hazard Index insignificant





## Summary of Practical RCL Implications:

### Change to exclusive $10^{-5}$ cumulative threshold for seven cPAHs:

- Significantly reduces numbers of RCL exceedance for low to modest levels of PAH contamination
- Little change for high level PAH contamination (i.e., still exceeds)

### Unchanged treatment for Naphthalene and 1-Methylnaphthalene:

- No implication - *all* naphthalene sample results reviewed showed individual compound risk orders of magnitude below  $10^{-6}$
- 1-methylnaphthalene at even lower risk levels

### Change to updated exposure assumptions:

- Nominal (<10%) increase in individual  $10^{-6}$  RCL, but not limited to cPAHs.

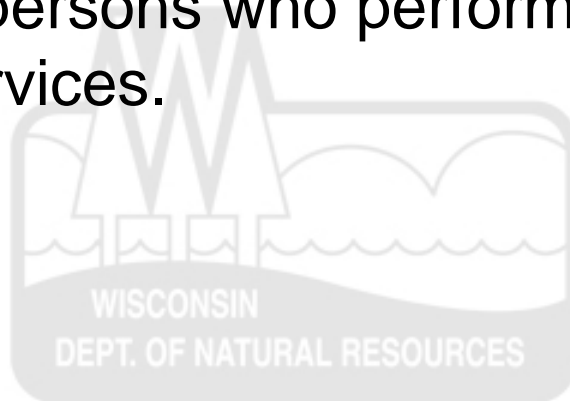


Questions?

# NR 712 Qualifications

DNR will enforce submittal  
certification requirements

Certification Statement Wis. Admin. Code § NR 712, entitled “Personnel Qualifications for Conducting Environmental Response Actions,” establishes minimum standards for experience and professional qualifications for persons who perform certain environmental services.



# NR 712 Qualifications

Documents submitted without the required submittal certification language or without the signature of a the appropriate Professional Engineer, Hydrogeologist and/or Scientist will be returned to the sender.



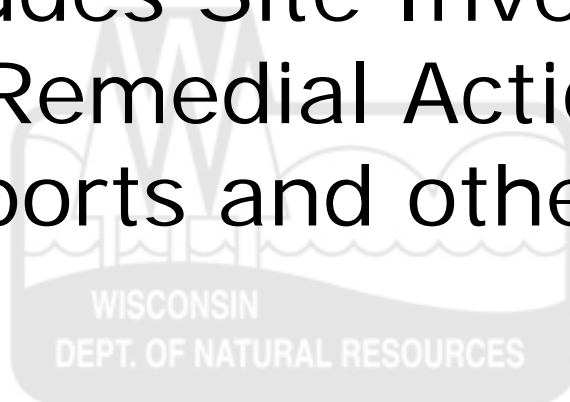
# NR 712 Qualifications

feedback



# Submittal of Required Documents - NR 700.11

The Department is currently evaluating actions to take to address sites where appropriate documents are not submitted. This includes Site Investigation Reports, Remedial Action Option Reports and others.





# Submittal of Required Documents

WHAT  
DO  
YOU  
THINK?



# Case Closure Reconsideration Process

Upon receiving case closure not approved letter:

Consultants/responsible parties may request a meeting with DNR to discuss technical comments from the closure review.

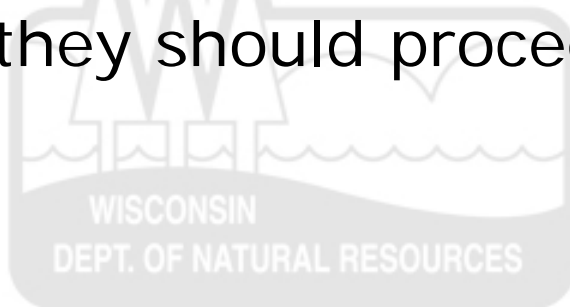
Meeting would be covered by the original case closure review fee.



# Case Closure Reconsideration Process

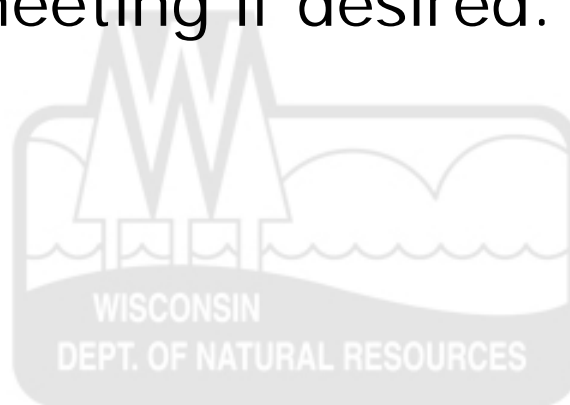
RP may request that the DNR “reconsider” the case closure by following these steps:

Step 1: Contact the DNR regional PM to ask for closure reconsideration meeting/call. After the RP and consultant have presented their comments or information, the RR regional supervisor will communicate to RP/consultant whether closure can be approved. If the issue is not resolved to the RP’s satisfaction, then they should proceed to step 2.



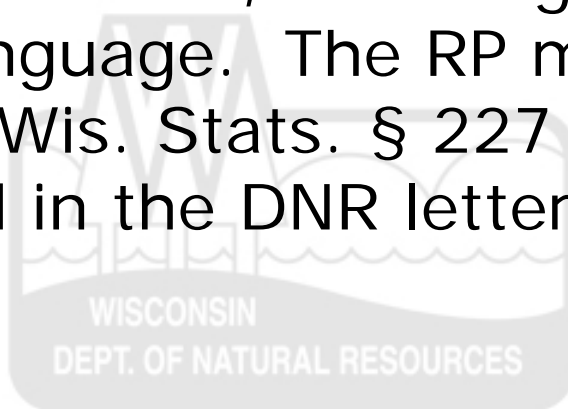
# Case Closure Reconsideration Process

Step 2: Meet with the RR Program Director, RR Director of Field Operations or both, along with the consultant, RR regional supervisor and PM, to discuss the site. The regional RR supervisor will facilitate this meeting if desired.



# Case Closure Reconsideration Process

Step 3: If case closure is approved, the DNR regional supervisor will issue a case closure letter. If case closure is not approved by the Program Director or Director of Field Operations, then a final case closure denial letter will be sent to the RP outlining the “findings of fact and conclusions of law” made by the DNR, including the Wis. Stats. § 227 appeals language. The RP may elect to proceed under Wis. Stats. § 227 or complete the work requested in the DNR letter.

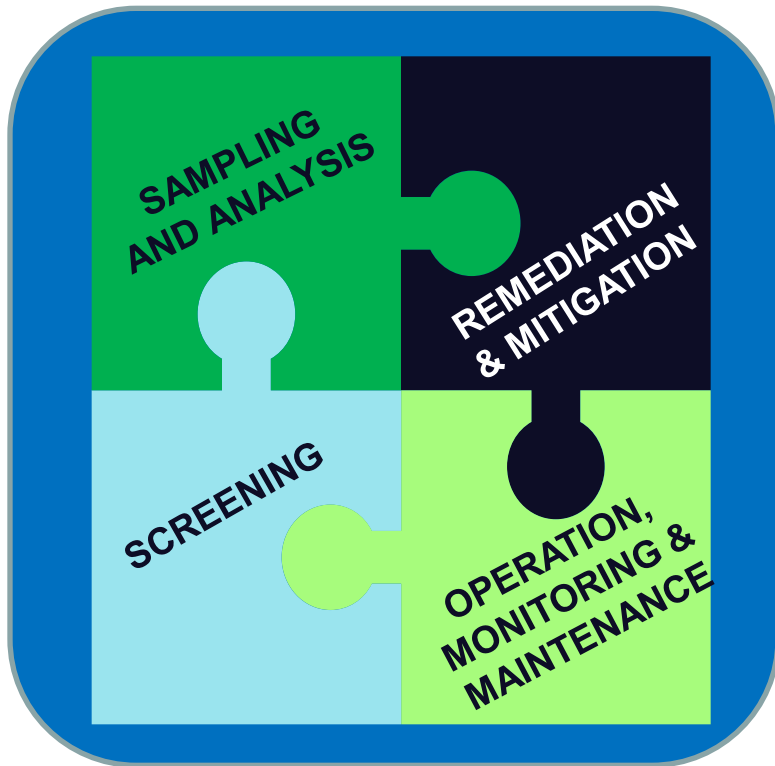


# Case Closure Reconsideration Process





# Questions?



# RR-800 REVISION

## Updates to VI Guidance

Timeline Estimate....

- Spring 2017 Public Comment
- Dec 2017 Final



# FRAMEWORK FOR PROTECTION



Is vapor intrusion possible?



Are subsurface concentrations a potential VI risk?



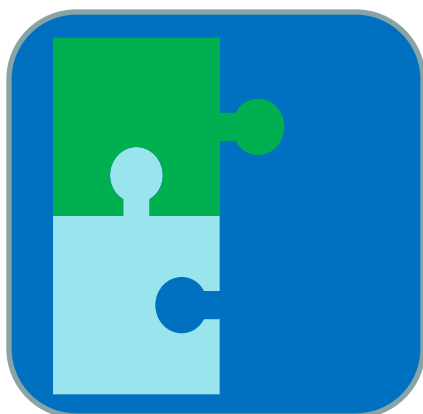
How is vapor intrusion interrupted for a site?



Will people remain protected into the future?



Have you talked to people you are trying to protect?



- ✓ PVOC screening criteria (new distances from ITRC)
- ✓ TCE acute risk
- ✓ Passive sampling methods
- ✓ Indoor Air Criteria
- ✓ Seasonal variability
- ✓ Site specific attenuation factor approaches



- ✓ Preemptive Mitigation
  - ✓ Not OK per NR 716.11 (existing bldg)
  - ✓ Encourage subslab sampling (new bldg)
- ✓ Detailed look at Mitigation Approaches
  - ✓ Active Depressurization
  - ✓ Active Indoor Air Controls
  - ✓ Passive Mitigation
- ✓ Guidelines and Criteria
  - ✓ Commissioning
  - ✓ Long-term OM&M
  - ✓ Decommissioning
- ✓ OM&M Plan Examples

✓ **Commissioning (Wisc. Admin. § NR 724.15)**

*Verify effectiveness and establish baseline operating conditions.*

✓ **Long-Term OM&M (Wisc. Admin. § NR 724.17)**

*Maintain and check that the system is within tolerable range of baseline conditions.*





✓ **Decommissioning (Wisc. Admin. § NR 727.09(4))**

*Demonstrate that system no longer needed.*

# LONG-TERM OM&M PLANS



EXAMPLE

SYSTEM COMPONENT		WHAT DOES IT DO?	WHAT DO I CHECK?	WHAT SHOULD I SEE?	WHAT TO FIX?
NAME	PHOTO				
Fan		<p>Fan creates a vacuum and lowers pressure below foundation.</p> <p>The fan also removes soil gases from below foundation for discharge to atmosphere.</p>	<p>Fan Operation</p> <p>Fan Location</p> <p>Motor Noise</p>	<p>Fan is on</p> <p>Fan mounted outside &amp; secure</p> <p>Fan motor is quiet (loud motor may indicate problem)</p>	<p>Fan may need to be replaced every 15 to 20 years.</p> <p>Replacement fan to have similar specifications as original with respect to flow and vacuum.</p> <p><b>ORIGINAL = <u>Insert Fan Spec and Name</u></b></p>
Sealed Sump w/Vent Pipe		<p><b>Sump Cover:</b> Soil gases are collected in sump and the cover prevents soil gas from getting inside home.</p> <p><b>Vent Pipe:</b> Pipe conveys the vacuum from the fan, and collects soil gases for discharge to the atmosphere.</p>	<p>Sump Cover Seal</p> <p>Vent Pipe Condition</p>	<p>Sump seal is air tight around edge and at pipe penetrations.</p> <p>Vent pipe is connected to fan, and is free of cracks or leaks.</p>	<p>Sump cover or vent pipe may need to be sealed or replaced if cracks or leaks appear.</p> <p>See <b>NOTE</b> below regarding pipe alternations. Have professional test pressures if pipes are modified</p>
Suction Drop Point w/Vent Pipe		<p><b>Suction Pit:</b> Soil gases are collected in a pit below the foundation, and tight seal prevents soil gas from getting inside home.</p> <p><b>Vent Pipe:</b> Pipe conveys the vacuum from the fan, and collects soil gases for discharge to the atmosphere.</p>	<p>Suction Pit Seal</p> <p>Vent Pipe Condition</p>	<p>Seal is air tight around pipe penetration.</p> <p>Vent pipe is connected to fan, has not cracked</p>	<p>Suction pit seal or vent pipe may need to be sealed or replaced if cracks or leaks appear.</p> <p>See <b>NOTE</b> below regarding pipe alternations. Have professional test pressures if pipes are modified</p>
Manometer or Differential Pressure Gauge		<p>Measures differential pressure between vacuum side of vent pipe and indoor space.</p> <p>This measurement confirms there is a vacuum being pulled by the fan.</p>	Liquid Level on Manometer	Liquid level in manometer is between ____ and ____ on the ____-hand side.	<p>A change in liquid level indicates a change in the vacuum below foundation. This could be caused by failure of fan, blockage of vent pipe, change in water level below building, or other conditions.</p> <p>Troubleshoot or hire professional to identify cause and repair if needed.</p>



# Questions?



# Site Investigation Guidance

- One main guidance to address topics of common SI deficiencies
- A companion guidance providing a suggested table of contents format and listing of information per report section.
- Common deficiencies and how to correct them will be a topic for the April Consultant Day



# Main SIR Deficiencies

- Vapor intrusion assessment
- NAPL assessment
- Defining stratigraphy
- Defining vertical gradients and flow
- Data Assessment, Preparing Results and Conclusions
- Potential Contaminants of Concern
- Defining Contaminant Trends





# Post-Closure Modifications

- Guidances being prepared:
  - to address the requirements, process and documentation for actions taken post-closure and to address when a site might be reopened
  - to answer multiple fee related questions, including when multiple documents are submitted when taking an action post-closure
  - how to update the land record when continuing obligations in a deed restriction have been satisfied



# Post-Closure Modifications

- NR 727 notice to DNR applies to sites closed with certain continuing obligations
  - Provide notice 45 days before taking an action which may affect a continuing obligation. DNR approval required for certain actions.
  - Updates to the record and clarifications of applicable continuing obligations can also be requested when changing property boundaries
  - NR 749 fees apply: See RR 987 for exceptions
  - Process outlined at RR Training Library (9/2/15):  
<http://dnr.wi.gov/topic/Brownfields/documents/training/COPrePost.pdf>

# VPLE Updates

New Guidance - Frequently Asked Questions

VPLE Insurance Update



# PECFA Updates

- 1261 claims received in 2016
- 85 claims in audit line (1/18/17)
- Auditing claims received on 12/14/16
- Payment 6-7 weeks after claim received.



# PECFA Updates

- Reviewer Status –
  - Tim Prosa back this week
  - Dennis Legler continues
- Stalled Sites Initiative – over 100 PECFA eligible sites currently stalled



# PECFA Updates

180 days to submit claims  
Statutory Requirement

No ability to grant appeals  
for late claims



# Contaminated Material Management Update





# Overview

- Waste Determination and Clean Soil
- Guidance for Exemption Options – LHE and NR 718
- Tracking
- Fees
- Staff Contacts
- Coming soon







# New Documents

- WA-1820 Waste Determination for Soils and Identifying Clean Soil
- RR-060 Management of Contaminated Soil and Other Solid Wastes Wis. Admin. Code §§ NR 718.12 and NR 718.15





# Waste Determination

- No restriction
- No cover
- No obligation

Clean?

- Location criteria met
- Shown to be protective
- Possible cover and/or restriction

LHE + NR718?

- Managed by facility guidelines

Licensed Landfill



# WA-1820 Waste Determination

- Provides guidelines for determining when excavated soil may be eligible for the “clean fill” exemption in s. NR 500.08(2)(a)
- If “clean soil” then the facility where it is managed is exempt from state solid waste regulations



# Waste Determination

- Soil generator determines if excavated soil is “clean soil”, thus exempt from solid waste regulations.
- The generator and the property owner may both be liable for management of material that causes a discharge.
- This Waste Determination is NOT the same as a Hazardous Waste Determination



# Waste Determination

- If you pick it up, it is a waste and requires appropriate management
- The generator's waste determination used to identify options for management
- Focus on Phase I type evaluation criteria – past land use
- Sampling is not always required



# Clean Soil

- Not naturally occurring compounds less than LOQs (VOCs, PCBs, pesticides, etc.);
- Naturally occurring compounds below Wisconsin BTVs;
- If PAHs or no BTV established (e.g. mercury, selenium, and silver), below the non-industrial direct contact and groundwater protective RCLs



# Clean Soil

## Wisconsin

### Background Threshold Values (BTVs), based on total parameter value analysis

Parameter	mg/kg		Parameter	mg/kg
Aluminum (Al)	29,000		Iron (Fe)	34,000
Arsenic (As)	8		Lead (Pb)	52
Barium (Ba)	360		Magnesium (Mg)	8,300
Cadmium (Cd)	1		Manganese (Mn)	2,900
Calcium (Ca)	15,000		Nickel (Ni)	31
Chromium (Cr), Total	44		Strontium (Sr)	55
Cobalt (Co)	22		Vanadium (V)	85
Copper (Cu)	35		Zinc (Zn)	150

Background threshold values are non-outlier parameter maximum levels in Wisconsin surface soils from the USGS Report “Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements” at: <http://pubs.usgs.gov/sir/2011/5202>.



# Low-Hazard Waste Exemption

## **Exempting Low-Hazard Wastes from Solid Waste Regulations**

**PUB-WA 1645  
June 2015**



**Waste & Materials Management  
P.O. Box 7921  
Madison, WI 53707-7921**





# NR 718 Exemption

Wisconsin DNR – Soil Management

**DRAFT**



## Remediation and Redevelopment Program

### Management of Contaminated Soil and Other Solid Wastes Wis. Admin. Code §§ NR 718.12 and NR 718.15

#### Purpose

This guidance is intended for use by responsible parties when excavating minimally contaminated soil and/or other waste materials and those materials may not warrant disposal at an operating, licensed landfill. This guidance describes several exemptions that may be available in such situations.

#### Background

Contaminated soil and other solid wastes that are generated as part of a *response action* under the state's clean-up rules may be eligible for an exemption from state solid waste laws. Wisconsin Administrative Code NR 700 rule series governs the response to and cleanup of hazardous substance discharges and environmental pollution. These exemptions to solid waste management are granted under Wis. Admin. Code §§ NR 500.08(6), NR 718.12 and NR 718.15. See our "Quick Guide" in Appendix A of an overview.



# Exemption Options – NR 718

- Limited to actions at Response Action sites
- Limited to management of soil on or off the source site and only at another site or facility
- Limited to management of other solid waste on source property only



# Exemption Options – NR 718

- Immediate Action
- Self Implementing
- Includes movement of soil and other solid waste on source property and soil on another site or facility.
- Limited to 100 cy of material
- Levels of contaminants cannot require engineering controls.



# Exemption Options – NR 718

- Interim or Remedial Actions
- Requires pre approval
- Requires information included on proposal template
- Levels of contamination can require engineering controls or other continuing obligations.



Remediation and Redevelopment Program

April 2016

## NR 718 Quick Guide: What Contaminated Soil or other Solid Waste Management Options are Available at Response Action Sites or Facilities?

This table is a general guide that describes what management/exemption options are available to responsible parties (RPs) and possibly others when managing contaminated soil or other solid waste (e.g., contaminated sediments, fill, foundry sand) excavated as a result of an immediate, interim or remedial response action taken under the Wis. Admin. § NR 700 rule series. This is an alternative approach to managing the material as a solid waste at an operating solid waste facility licensed to accept that waste.

Questions	NR 718.12(1) Contaminated Soil Exemption	NR 718.12(1) & (2) Contaminated Soil Exemption	NR 718.15 – on site replacement of solid waste other than soil
1. Who may utilize the NR 718 exemptions?	<ul style="list-style-type: none"> <li>Responsible parties</li> <li>construction or utility projects<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>Responsible parties</li> </ul>	<ul style="list-style-type: none"> <li>Responsible parties</li> </ul>
2. What type of NR 700 response actions are eligible for the exemptions?	<ul style="list-style-type: none"> <li>Immediate Actions - NR 708.05</li> </ul>	<ul style="list-style-type: none"> <li>Interim Actions - NR 708.11</li> <li>Remedial Actions – NR 722</li> </ul>	<ul style="list-style-type: none"> <li>Interim Actions - NR 708.11</li> <li>Remedial Actions – NR 722 and 724</li> </ul>
3. Is Department pre-approval required to...?	<ul style="list-style-type: none"> <li>No, but all criteria in NR 718.12(1)</li> </ul>	<ul style="list-style-type: none"> <li>Yes, pre-approval in writing</li> </ul>	<ul style="list-style-type: none"> <li>Yes, pre-approval in writing</li> <li>RP is required to provide DNR</li> </ul>



# LHE and NR 718 Similarities

- Allow for management of contaminated material at a location other than a landfill.
- Should consider similar criteria for acceptable material and placement locations/conditions.
- Can require capping or other post placement controls.
- Require a fee.



# LHE and NR 718 Differences

## Applicability

- LHE – Very Broad
- NR 718 – limited to
  - NR 700 Response Actions
  - Placement at another site or facility
  - Movement of soil or other solid waste on site and soil only off site
  - Self-implementing option for immediate action



# LHE and NR 718 Differences

- Media Managed
- Placement/Management Options
- Long Term Stewardship/Continuing Obligation Process
- Tracking
- Fee Amounts







# Forms and other tools

- LHE Example Proposal Format
- RR-072 NR 718.12 and NR 718.15 Example Proposal Format
- RR-070 Agreement to Receive Contaminated Soil at a Site or Facility
- RR-071 NR 718.12(1) Immediate Action Sample Results Notification
- RR-073 NR 718 Immediate Action Exemption from Locational Criteria



# Exemption Request Content

- Responsible Party Information
- Project Information
- Waste Characteristics and Quantities
- Locational Standards – On Site plus Off Site
- Figures
- Receiving Site Acceptance Letter
- Timeline
- Contractor Contacts
- Certifications
- Attachments – Data, Maps



# Agreement to Receive Contaminated Soil

I understand and accept the following:

- (1) I understand that the grant of exemption will also be issued to me as the owner of the receiving site or facility, and that I may not allow the placement of contaminated soil on my site or facility until the Department issues a written exemption under Wis. Admin. Code § NR 718.12(1) and (2).
- (2) I acknowledge that I am accepting contaminated soil that is considered a solid waste, and that I have responsibility as the person who has long-term responsibilities under for the solid waste under Wis. Stats. §§ 289 and 292.
- (3) I understand that if the solid waste disposed of on my site or facility would cause a discharge of a hazardous substance to the air, land or waters of the state, I may be held responsible for taking appropriate actions to clean up the contamination under Wis. Stats. § 292.
- (4) I certify to the Department that my property meets the definition of a "site" or "facility" in Wis. Stats. 292.
- (5) I understand that without prior written approval from the Department the material may not be placed: (1) within a floodplain; (2) within 100 feet of a wetland or critical habitat area; (3) within 300 feet of any navigable river, stream, lake, pond, or flowage; (4) within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well; (5) within 3 feet of the high groundwater level; and (6) at a depth greater than the depth of the original excavation from which the contaminated soil was removed.

I will maintain all Wis. Stats. § 292.12 and Wis. Admin. Code § NR 727 continuing obligations required to be placed on the property to maintain protectiveness, including conducting annual inspections, recordkeeping and maintenance requirements.

I understand that the presence of the contaminated soil or other solid waste may be discloseable under Wisconsin's real estate disclosure law, Wis. Stats. § 709.

I acknowledge that the Department of Natural Resources has the right to inspect my property to determine the adequacy of any continuing obligation placed on the solid waste to ensure protection of public health, safety, welfare and the environment.

I understand that if I elect to excavate the contaminated soil in the future, that I will need to obtain written, prior approval from the Department to relocate that solid waste to any other location other than an operating, licensed solid waste facility;

I acknowledge that if I plan to build on the area where the contaminated soil will be disposed of, I will need to notify the Department prior to conducting any development activities and will need to receive additional written exemptions and/or approvals and pay Department fees for those activities; and

I understand that my site or facility – including the site or facility name, location and the relevant site documents – will be entered into and tracked on the Department's publicly available Bureau for Remediation and Redevelopment Tracking System (BRRTS) database.





# Locational Criteria Exemption

## **NR 718 – Immediate Action Exemption from Locational Criteria**

### **Location Standards**

Check any criteria that are not met for proposed material placement:

	Within a floodplain.
	Within 100 feet of any wetland or critical habitat area.
	Within 300 feet of any navigable river, stream, lake, pond, or flowage.
	Within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well.
	Within 3 feet of the high groundwater level.
	At a depth greater than the depth of the original excavation from which the contaminated soil was removed.



# Lab Data Reporting Form

**Site Information**

Site Name

Address

**Responsible Party**

Responsible Party

Address

Contact Person

**Property Owner**

Property Owner

Address

Contact Person

**Sample Collection**

Submitted By:

Address

Contact Person

Company Name

**Sample Results (Results Attached)**Reason for Sampling: ☐ Immediate Action NR 718.12 (1)

Analytical Package for Contaminant Testing:  
Provide a copy of sampling results to the DNR within 10 days. Analytical results should be displayed on a table with a map showing sampling locations.



# Imposing Continuing Obligations

Continuing Obligations (COs) include two parts:

1. an enforceable document –  
Exemption approval letter including requirements/restrictions for COs
2. listing on DNR Database.



# Tracking in BRRTS

- Soil Management sites - receiving sites in which a property owner has agreed to accept contaminated soil from “another property” under an NR718 approval process.
- Documents including the exemption request and the approval letter will be uploaded to BRRTS.





# Fees



- WMM Low Hazard Exemption - \$550
- NR 718 Exemption –
  - Immediate Action with NFA - \$350
  - Interim Action - \$700
  - Remedial Action - \$1050
  - Post Closure Modification - \$1050
  - PLUS GIS fees - \$300/\$350



# Fees

## NR 749 Fees for Review of Wis. Admin. Code §§ NR 718.12 Soil or NR 718.15 Waste Management Plans

*(If soil is managed on both the source property and on a different site or facility, fees from all columns apply)*

NR 749 Fees for Actions and Soil Management Plans (SMP) submitted under NR 718.12 and NR 718.15		Soil or Waste Managed on the Source Property (of "site" or "facility")		Soil or Waste Managed on a Different "Site" or "Facility"	
Action	Action Fee	SMP Fee	GIS Fee	SMP Fee	GIS Fee
<b>Immediate Actions:</b> NR 708.05 (6), if SMP submitted in compliance with NR 718.12 (1)	\$350*	No fee	No fee	No fee	No fee
<b>Interim Actions</b> with SMP for NR 718.12 (1) and (2) or NR 718.15	\$700	No fee	No fee	\$700	\$300
<b>Remedial Action</b> Plan approval with SMP (NR 718.12(1) and (2) or NR 718.15) without residual soil CO.	\$1050	No fee	No fee	\$700	No fee
<b>Remedial Action</b> Plan approval for site with residual soil CO, with SMP	\$1050	No fee	\$300	\$700	\$300
SMP submitted separately from RAP, with residual soil CO	NA	\$700	\$300	\$700	\$300
<b>Closed Sites:</b> Post-closure action with SMP, no residual soil CO at source property	NA	\$700	\$300	\$700	\$300
<b>Closed Sites:</b> Post-closure action, with residual soil CO, with SMP	\$1050	No fee	\$300	\$700	\$300
SMP submitted separately from post-closure action, residual soil CO on source property	NA	\$700	\$300	\$700	\$300

\*Fee applies only if a NFA letter is requested.

NA means Not Applicable



# Who Can Help?

## Support for Material Management

- NR 718 – Judy Fassbender/Paul Grittner
- LHE/Sediment – John Morris



# Who Can Help?

## Regional Support NR 718

NER - Kristen DuFresne (920) 662-5443

NOR - Chris Saari (715) 685-2920

SER - Nancy Ryan/Linda Michalets  
(414) 263-8533/(414) 263-8757

WCR - Dave Rozeboom (715) 839-3710

SCR – Mike Schmoller (608) 275-3303



# Who Can Help?

## Dredged Material Disposal and Contaminated Soil Management (LHGE)

- Joe, Lourigan, Plan Review Expert, CO (608-267-9386)
- Jaqueline Marciulionis, NER (920-662-5433)
- John Morris, NOR (715-635-4046)
- Adam Hogan, SCR (608-275-3292)
- Jerry DeMers, SER (414-263-8594)
- Brian Kalvelage, WCR (608-785-9983)



# Who Can Help?

## Nonmetallic Mining

- Tom Portle, Program Coordinator  
(608-267-0877)
- Zoe McManama (715-365-8854)



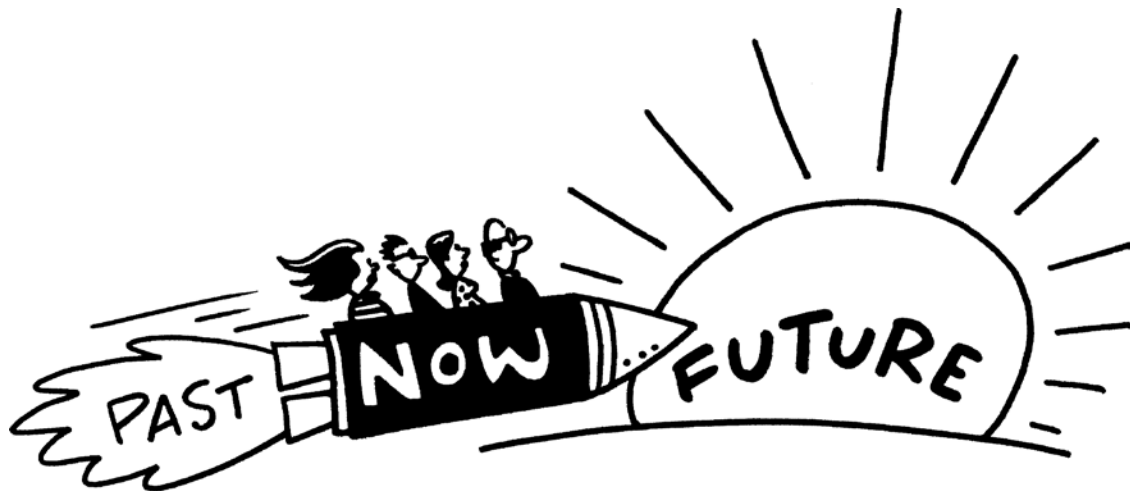
QUESTIONS?

WISCONSIN  
DEPT. OF NATURAL RESOURCES



# What's Next?

- Process Guidance
- PAH Risk Assessment Short Form
- PAH Background Study





# What's Next?

- Compounds/concentrations?
- No or very limited VOCs
- Vapor and migration concerns
- Direct Contact risk – if protected, levels above DC RCL are acceptable if not leach to ground water
- SPLP testing- recommendation for how to collect samples





# What's Next?

- What receiving site conditions are acceptable for certain contaminants, concentrations and quantities



# What's Next?

- What protective measures/continuing obligations are required for certain material placement



# What's Next?

- PAH Risk Assessment short form for No Action Required (NAR) determination
- PAH Background Study



# What's Next?

- Exemption Options for Sediment -  
Future Guidance

## **Dredged Material Upland Disposal & Use Practices, and Exemptions**

DNR Publication WA-\_\_\_\_\_



P.O. Box 7921  
Madison, Wisconsin  
53707-7921

# Contaminated Sediments External Advisory Group (CSEAG)





# CSEAG – Origination & Meetings

- Established as a result of recommendations outlined in the Brownfield Study Group 2015 Report Investing in Wisconsin, Reducing Risk, Maximizing Return
- Subgroups and workgroups were created in 2016
  - Subgroup 1 – Site Specific Standard Development
    - Background workgroup
    - Partitioning Factors workgroup
  - Subgroup 2 – Default Standard Development
  - Subgroup 3 – Ordinary High Water Mark (OHWM) and Transition Zone Issues



# CSEAG – 2017 Tasks

- Applicability of NR 700 to sediment sites
- Action within DNR's legal authority to develop sediment guidance
  - No rule-making authority at this time
    - Can we establish a number or numbers?
    - Can we outline a process?
- On-ramp to NR 700 with respect to sediment
  - When does a site investigation enter water
  - How to complete a sediment investigation



# CSEAG – 2017 Tasks (continued)

- Clarify that a NR 716 site investigation is not equal to NR 347 sampling requirements
- Clarify that dewatered sediment is can be managed like soil for purposes of disposal
- Clarify the applicability of NR 718 with respect to sediment





# CSEAG – 2017 Tasks (continued)

- Sediment covers and engineering controls
  - Outline their differences
  - Clarify their appropriate uses
- How to make Ordinary High Water Mark (OHWM) determinations with respect to Act 204
- How to track sediment sites in the DNR database(s)



Questions?

# **Remediation and Redevelopment Program**

## **Issues & Trends 2017**





# **Schedule**

1<sup>st</sup> Wednesday of each month unless noted otherwise. No event April & July.

12:00 p.m. – 1:00 p.m.

Full schedule and monthly descriptions on RR Program Training Page:

<http://dnr.wi.gov/topic/Brownfields/Training.html>

No cost / No registration.



# Topics

- PCBs in Wisconsin – Sampling and What's Next
- Environmental Issues for Demolition – Asbestos, Lead, PCBs and More
- Managing Contaminated Soil and Waste (NR 718 / NR 500)
- PAH Risk Assessment and Changes to the RCL Calculator
- Site Investigation Completeness
- Site Investigations and Emerging Contaminants
- Vapor Intrusion Sampling – When and What to Sample
- Developing on a Closed Site – Post-closure Modifications and Redevelopment
- Applying NR 700 to Contaminated Sediment
- Vapor Intrusion Commissioning and O&M – New Additions to RR 800 Guidance
- PAH Background Study

# Remediation and Redevelopment Program Consultants' Days 2017





- April 12 – Stevens Point – Holiday Inn Convention Center
- April 20 – Pewaukee – Country Springs Conference Center
- Finalizing agenda now
- Registration by end of January or early February
- Information and registration on RR Program Training Page:  
<http://dnr.wi.gov/topic/Brownfields/Training.html>