Groundwater Quality Rules
NR 140 Cycle 10 Rulemaking
Stakeholder Meeting

Bruce Rheineck
Groundwater Section Chief
Drinking Water & Groundwater Bureau
July 21, 2020
Today’s Presentations

• Introduction – overview of rulemaking timeline

• Request to update Volatile Organic Compounds (VOCs) standards

• Basis for Recommended groundwater standards

• Comments
Rulemaking process and timeline

- **2019**
  - All year: Rule drafting begins
  - Winter: Scope statement approved by Governor
  - Preliminary public hearings
  - NRB approves scope

- **2020**
  - Winter: Preparation of proposed rule
  - Stakeholder meetings
  - Solicitation of info for EIA
  - Draft EIA

- **2021**
  - Summer: Public hearings on proposed rule
  - Legislative review

- **2022**
  - Winter: NRB meeting for rule adoption
  - Rule approved by Governor
  - Rule becomes effective
  - Spring: Rule signed by DNR secretary
NR 140 Stakeholder Meetings

• PFAS
  • March 23, 2020
• Metals and Metalloids
  • June 9, 2020
• Volatile organic compounds (VOCs)
  • July 21, 2020
• Pesticides
  • August 25, 2020
• Bacteria
  • September 30, 2020
NR 140 Stakeholder meetings

- Information on upcoming meetings will be on the NR 140 update website.
  - NR140 rule webpage
- Formal comment period for draft rule will occur in 2021
NR 140 Stakeholder meetings

- Volatile organic compounds (VOCs)
  - Trichloroethylene
  - Tetrachloroethylene
  - 1,2,3-trichloropropane
  - 1,1-dichloroethane
  - 1,4-dioxane
NR 140 Cycle 10 Rulemaking Stakeholder Meeting

Remediation and Redevelopment Program
Judy Fassbender
July 21, 2020
Common Sources

**Trichloroethylene (TCE)**
- Solvent for extraction, waterless drying, and finishing
- Solvent in adhesives, lubricants, paints, varnishes
- PCE breakdown product

**Tetrachloroethylene (PCE)**
- Dry cleaning solvent
- Metal degreasing solvent

**1,2,3-Trichloropropane (1,2,3-TCP)**
- Chemical manufacturing
- Industrial solvent
- Paint and varnish remover
- Cleaning and degreasing agent

**1,1-Dichloroethane (1,1-DCA)**
- Manufacture of 1,1,1-trichloroethane
- Solvent for cleaning and degreasing
- Manufacture of plastic wrap, adhesives, fibers
- Breakdown product of chlorinated compounds

**1,4-Dioxane**
- Chlorinated solvents as a stabilizer – discontinued
- Solvent in paints, varnishes, adhesives, detergent
- Cosmetics
- Pesticides
Wisconsin Administrative Code NR 700

Regulations for addressing Hazardous Substance Discharges and Environmental Pollution

• Key components to consider
  • NR 706 – Hazardous Substance Discharge Notification Requirements
  • NR 716 – Site Investigations
  • NR 720 – Soil Cleanup Standards
  • NR 722 – Standards for Selecting Remedial Actions
  • NR 726 – Case Closure
NR 706 – Hazardous Substance Discharge Notification Requirements

• Notification of Discharge required regardless of standard
• Few exceptions for requirement to report
  • Diminimus
  • None affected by proposed standard changes
NR 716 – Site Investigations

Determine nature and extent of impacts
  • No change in methods or requirements

Evaluate all potentially affected media
  • Soil
  • Groundwater
  • Surface water
  • Sediment
  • Vapor Intrusion
Vapor Intrusion

• Vapor intrusion evaluation
  1. Screening
     Uses ES and PAL directly in DNR screening guidelines
  2. Assessment

• Increase in sites assessed for TCE
• Decrease in sites assessed for PCE
• No change for other compounds unless Vapor Action Level (based on inhalation) is modified.
Vapor Intrusion Screening

Situations where vapor sampling is recommended
NR 720 Soil Standards

1. Direct Contact based on U.S. EPA Regional Screening Levels (RSLs)
   A. Nonindustrial land use
   B. Industrial land use
      • No change based on revised NR 140 standards

2. Groundwater Protective RCLs
   • Will change based on revised NR 140 standards
NR 720 – Soil Cleanup Standards

<table>
<thead>
<tr>
<th>Compound</th>
<th>Current NR 720 RCL Groundwater Pathway (ppb)</th>
<th>NR 720 RCL GW Pathway based on DHS Recommended ES (ppb)</th>
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</thead>
<tbody>
<tr>
<td>Trichloroethylene (TCE)</td>
<td>3.58</td>
<td>0.356</td>
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<tr>
<td>Tetrachloroethylene (PCE)</td>
<td>4.54</td>
<td>18.2</td>
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<td>1,2,3-Trichloropropane (1,2,3-TCP)</td>
<td>51.9</td>
<td>0.26</td>
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<td>1,1-Dichloroethane (1,1-DCA)</td>
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<td>483</td>
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<tr>
<td>1,4-Dioxane</td>
<td>1.23</td>
<td>0.144</td>
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</tbody>
</table>
NR 722–Standards for Selecting Remedial Actions

- NR 140 used for groundwater cleanup target
NR 726 – Case Closure

- Standards in place at the time of closure are applied.
  - Soil
  - Groundwater
  - Vapor Intrusion
Questions
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Insert Sarah’s slides here
Questions or Comments