Agenda

- Welcome and Introductions
- Group Overview and Expectations
- DNR and DHS Guidance Documents
- Modifying DNR’s Default PFAS List
- State Budget and Legislature
- Update on Other DNR PFAS Initiatives
- Wrap-up and Next Steps
Welcome
Hazard Index and PFAS Mixtures

Brita Kilburg-Basnyat, Ph.D.
Toxicologist
Hazard Assessment Section

February 23, 2021
PFAS Policy Advisory Committee Meeting
Risk Assessment Framework

• Likelihood of co-exposure?
• Similar adverse outcome pathway?
• Similar chemical structure?
• Interaction effects?
Cumulative Risk Assessment

- Hazard index
- Relative potency factors
- Response addition or dose-response analysis
- Interactions hazard index
- Point of departure
Previous Hazard Index uses

DHS has used hazard index for groundwater contaminants including:

- Certain classes of pesticides
- Volatile organic compounds
Why PFAS Hazard Index?

- Toxicologically similar
- PFAS are found as mixtures in groundwater
- Same critical target organ or system
- Interaction effects unknown
PFAS Hazard Index Advantages

• Considers health risk of multiple chemicals on non-cancer related health effects

• Reduces overall risk for health effects from similar compounds
### Hazard Index PFAS Groupings

<table>
<thead>
<tr>
<th>PFAS with DHS Recommended Standards</th>
<th></th>
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<tbody>
<tr>
<td>FOSA</td>
<td>PFNA</td>
</tr>
<tr>
<td>NEtFOSA</td>
<td>PFDA</td>
</tr>
<tr>
<td>NEtFOSAA</td>
<td>PFUnA</td>
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<tr>
<td>NEtFOSE</td>
<td>PFBS</td>
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<tr>
<td>PFOA</td>
<td>PFHxS</td>
</tr>
<tr>
<td>PFOS</td>
<td>PFDoA</td>
</tr>
<tr>
<td>PFTeA</td>
<td>HFPO-DA; GenX*</td>
</tr>
<tr>
<td>PFBA</td>
<td>PFODA</td>
</tr>
<tr>
<td>PFHxA</td>
<td>DONA</td>
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</tbody>
</table>

All had reproductive and/or developmental health effects in animal studies
PFAS Hazard Index is Protective

• Health effects from PFAS mixtures are unknown

• Health risks are reduced by eliminating or reducing PFAS exposure
PFAS Hazard Quotient

Hazard Quotient (% of ES)  =  Individual PFAS value  × 100  
DHS Recommended Enforcement Standard (ES)
PFAS Hazard Index

Hazard Index = Hazard Quotient + Hazard Quotient + ...
Hazard Index Interpretation

• If hazard index is ≥1, potential concern for adverse health effects.

• DHS recommends action to reduce the potential risk of human health effects.
Thank You!

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Hazard Index: How will DNR use it?

Jenna Soyer, DNR Policy and Program Operations Director in Remediation and Redevelopment
PFAS Hazard Index - How will DNR use it?

- Ensure protectiveness:
  - Assess potential risk when dealing with mixtures
  - Additional mechanism for a DNR-issued or approved drinking water advisory under NR 738 for PFAS-impacted private water supplies
- Evaluate data for private wells affected by PFAS contamination from a “site” or “facility”
- Determine when DNR would provide emergency, temporary water, and when DNR would recommend similar actions of a responsible party
- Next steps
WI DNR DEFAULT PFAS LIST CHANGES

Tom Trainor, DNR Program Chemist
Current WI DNR Default PFAS List

• 36 PFAS – March 2019

• Default list based on:
  ➢ Detections in WI drinking water, groundwater, and other media
  ➢ Detection information from other states
New PFAS Information

• Upcoming EPA non-drinking water method includes all 36 WI PFAS except:
  ➢ 10:2 FTS
  ➢ PFHxDA
  ➢ PFODA

• These three are not part of the EPA method validation study (single or multi-lab)

• These three present analytical challenges
PFAS Reminders

• March 1, 2021 - DNR to communicate to stakeholders

• Applies to WI default PFAS list

• Does not preclude requesting these or other PFAS not on the WI DNR default PFAS list – case-by-case situation

• Site closure is based on information provided to the DNR at the time of the closure request and is granted for the contaminants assessed

• Reopener criteria in NR 727.13
PFAS Down the Road

• Once EPA releases their non-drinking water method, WI DNR will change the WI DNR default PFAS list to match the 40 PFAS in the EPA method.

• Means adding 7 more PFAS to our modified list of 33 PFAS.

• Adding NFDHA (food packaging), PFEESA (replacement), PFMPA (manufacturing), PFMBB (manufacturing) - all from EPA 533.

• Adding 3:3 FTCA, 5:3 FTCA, 7:3 FTCA (landfill leachate) – all from EPA method.
PFAS State Budget Items

- $1 million for collection & disposal of fluorinated foam
- $750,000 to test public water supply wells
- $55,000 annually to survey 44 large rivers
- $25,000 annually for wastewater sampling
- $600,000 annually to test for and mitigate PFAS at state-lead sites
- $10M annually for municipal grant program - investigate, treat, dispose, sample private wells, emergency water
- 11.0 additional positions
- Statutory language on setting interim PFAS standards
DNR PFAS Initiatives and Updates
Questions
Wrap-up and Next Steps
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