

Background

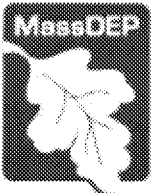
- Unregulated Contaminant Monitoring Rule (UCMR) 3 included 6 PFAS
 - PFOS; PFOA; PFNA; PFHpA; PFHxS; PFBS
- Nationally, about 1% > EPA HA (PFOS/PFOA)
- MA about the same
 - 171 PWS tested: 5 detects/2 above HA
 - Additional sites identified
- PFAS beyond PFOS and PFOA detected
 - No EPA Health Advisories for the others
- ORS asked to develop recommendations






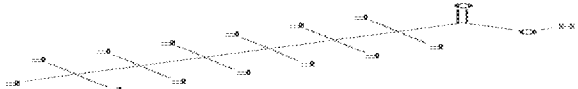


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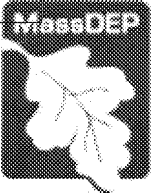


Tier 10



UCMR 3 PFAS

| UCMR 3 PFAS | Chemical Structure | <i>In vivo</i> toxicity* | Half -life In body |
|--|--|--------------------------|--------------------|
| Perfluorooctanoic acid 335 -67 -1 Carbons = 8 Fluorinated Carbons = 7 | PFOA  | 1 | 3.5 years |
| Perfluorooctanesulfonic acid 1763 -23 -1 Carbons = 8 Fluorinated Carbons = 8 | PFOS  | 1 | 4.8 years |
| Perfluorononanoic acid 375 -95 -1 Carbons = 9 Fluorinated Carbons = 8 | PFNA  | >/= 1 | 3.2 years |
| Perfluoroheptanoic acid 375 -85 -9 Carbons = 7 Fluorinated Carbons = 6 | PFHpA  | NA | NA |
| Perfluorohexanesulfonic acid 355 -46 -4 Carbons = 6 Fluorinated Carbons = 6 | PFHxS  | >/= 1 | 7.3 years |
| Perfluorobutanesulfonic acid 375 -73 -5 Carbons = 4 Fluorinated carbons = 4 | PFBS  | < 0.01 | 0.1 year |



ORS Recommendations

- Treat the five longer carbon chain UCMR 3 PFAS the same
 - Same approach as adopted by Connecticut Department of Public Health (CT DPH)
- Further assessment needed for PFBS
- Reviewed and endorsed by MassDEP Health Effects Advisory Panel
 - Technical experts in toxicology; risk assessment and public health/MADPH



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Status

- MA Drinking Water Guideline formally adopted:
 - 70 ppt for sum of the 5: PFOs; PFOA; PFNA; PFHxS; PFHpA
 - MA MCL under consideration
- Guideline being implemented by MA Drinking Water Program
 - Public notification
 - Expeditious steps to reduce levels
- PFAS also being addressed under MA Hazardous Waste Site program
- Waste Site Cleanup Standards being developed



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