ENVIRONMENTAL REGISTER

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A PUBLICATION OF THE ILLINOIS POLLUTION CONTROL BOARD

https://pcb.illinois.gov/

The **Illinois Pollution Control Board** is an independent, five-member board that adopts environmental control regulations and decides enforcement actions and other environmental cases for the State of Illinois.

INSIDE THIS ISSUE

CHAIR'S UPDATE

Over the last few months, the Board has continued making significant progress in its rulemakings. I highlight four of those rulemakings below.

First, on December 3, 2020, the Board amended its rules on handling "potentially infectious medical waste" or "PIMW." Specifically, the Board added four viral agents (Guanarito virus, Sabia, Ebola virus, and Equine Morbillivurs) to the definition of "Class 4 etiologic agent." The amendments became effective on December 3, 2020. *See* Amendments to the Definition of "Class 4 etiologic agent", 35 Ill. Adm. Code 1420.102, docket R20-17.

Second, on January 21, 2021, the Board adopted new air pollution rules that require the Illinois Environmental Protection Agency (IEPA) to monitor ambient air across Illinois for background levels of ethylene oxide (EtO). *See* Proposed New 35 Ill. Adm. Code 249, Ethylene Oxide Ambient Air Monitoring, docket R20-18. EtO is a flammable gas used for sterilizing medical equipment, among other uses. The rules, which took effect on January 25, 2021, were mandated by the Environmental Protection Act. At second notice, the Joint Committee on Administrative Rules (JCAR) issued a certification of no objection to the rules.

Third, also on January 21, 2021, the Board proposed air pollution rules for second-notice review by JCAR. The proposed rules provide volatile organic material (VOM) emission limits specific to aerospace manufacturing and rework operations in the Metro East area. *See* Amendments to 35 Ill. Adm. Code 219, Organic Material Emission Standards for the Metro East Area, and 35 Ill. Adm. Code 211, Definitions and General Provisions, docket R21-18. The rules are on JCAR's agenda for its February 16, 2021 meeting.

Lastly, after conducting seven days of public hearing and receiving over 250 public comments, the Board plans to issue its second-notice opinion and order this month in the coal combustion residual (CCR) rulemaking. *See* Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed New 35 Ill. Adm. Code 845, docket R20-19. IEPA initiated this rulemaking by proposing Statewide rules on the disposal of CCR, which is created when coal is burned to generate electricity. Under the Environmental Protection Act, the Board must adopt final CCR rules by the end of March 2021.

Other rulemakings are discussed in the Rulemaking Update of this *Environmental Register*.

Sincerely,

Barbara Flynn Currie

Barbara Flynn Currie
Chair

RULEMAKING UPDATE

Board Proposes VOM Emissions Rules for Metro East Aerospace Operations

On October 15, 2020, the Board accepted for hearing a rulemaking proposal to regulate volatile organic material (VOM) emissions from aerospace manufacturing and rework operations in the Metro East counties of Madison, Monroe, and St. Clair. The proposal was filed by the Illinois Environmental Protection Agency (IEPA).

According to IEPA, an emission source in the Metro East area intends to expand its aerospace facility. The expansion would subject the facility to general VOM emission limitations for miscellaneous metal parts and products coating. Guidance from the United States Environmental Protection Agency, however, recognizes that general limitations are not appropriate for aerospace applications. IEPA therefore proposed these rules to ensure that limits specific to aerospace operations apply to the expanded facility.

When it accepted the proposal for hearing, the Board also granted IEPA's motion for expedited review. Consistent with that grant, the Board—without commenting on the proposal's substantive merits—directed its Clerk to submit the proposed rules for first-notice publication in the *Illinois Register*.

The Board planned to hold two public hearings on the proposed rules. The hearings would include the additional platform of WebEx to encourage safe public participation during the COVID-19 pandemic.

The rulemaking is captioned Amendments to 35 Ill. Adm. Code 219, Organic Material Emission Standards for the Metro East Area, and 35 Ill. Adm. Code 211, Definitions and General Provisions, docket R21-18. Here is a link to the Board's first-notice opinion and order, which includes the text of the proposed rules. For more information, please contact Tim Fox at 312-814-6085 or tim.fox@illinois.gov.

Board Sends EtO Air Monitoring Rules to Second Notice

On November 19, 2020, the Board issued a second-notice opinion and order proposing a new Part 249 of its air pollution rules. As proposed, Part 249 requires the Illinois Environmental Protection Agency (IEPA) to monitor ambient air across Illinois for background levels of ethylene oxide (EtO). EtO is a flammable gas that has many uses, including sterilizing medical equipment. Under the proposed rules, IEPA must monitor for EtO in or around the locations of Northbrook, Schiller Park, Nilwood, Alton, and Bondville—where IEPA has monitoring stations. IEPA must monitor for six consecutive calendar months and place the air monitoring results on its website.

On December 17, 2019, IEPA initiated this rulemaking by submitting a proposal to the Board. IEPA's monitoring for ambient EtO levels and the proposed rules for carrying out that monitoring are required by new Section 9.16(n) of the Environmental Protection Act (415 ILCS

5/9.16(n), added by P.A. 101-22 (eff. June 21, 2019)). In its November 19, 2020 opinion and order, the Board addressed the issues raised at hearing and in public comment, after which the Board submitted its proposed rules to the Joint Committee on Administrative Rules for second-notice review.

This rulemaking is captioned Proposed New 35 Ill. Adm. Code 249, Ethylene Oxide Ambient Air Monitoring, docket R20-18. Here is a link to the Board's second-notice opinion and order, which includes the text of the proposed rules. For more information, please contact Mark Kaminski at 312-814-3886 or mark.kaminski@illinois.gov.

Board Amends PIMW Regulations

On December 3, 2020, the Board issued a final opinion and order amending its regulations on handling "potentially infectious medical waste" or "PIMW." Specifically, the Board amended its definition of "Class 4 etiologic agent," which bears on the definition of PIMW. The amendments add four viral agents to the "Class 4 etiologic agent" definition: Guanarito virus; Sabia; Ebola virus; and Equine Morbillivurs. The amendments also reflect non-substantive changes suggested by the Joint Committee on Administrative Rules.

The adopted rules took effect on December 3, 2020. The rulemaking is captioned Amendments to the Definition of "Class 4 etiologic agent", 35 Ill. Adm. Code 1420.102, docket R20-17. Here is a link to the Board's final opinion and order, which includes the text of the adopted amendments. For more information, please contact Chloe Cummings at 312-814-3665 or chloe.cummings@illinois.gov.

Board Adopts "Identical-in-Substance" Amendments to Wastewater Pretreatment Rules

On December 3, 2020, the Board adopted final amendments to its wastewater pretreatment rules at 35 Ill. Adm. Code 310. The amendments are "identical in substance" to actions taken during the first half of 2020 by the United States Environmental Protection Agency (USEPA). Specifically, on April 15, 2020, USEPA revised its National Pollutant Discharge Elimination System (NPDES) electronic reporting (eReporting) rule for municipal separate storm sewer systems (MS4s). Some accompanying revisions to more general aspects of the NPDES eReporting rule also affected reporting for the wastewater pretreatment program. The Board's amendments incorporated those general reporting revisions into the Illinois rules.

In addition, the Board included an amendment that was not based on a USEPA action during the first half of 2020. Specifically, the Board removed an obsolete rule relating to a project under the Regulatory Reinvention (XL) Community Pilot Program (Project XL) involving the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). MWRDGC and USEPA agreed to terminate the project in 2004, and USEPA terminated Project XL in 2009.

The adopted rules became effective on December 3, 2020. The rulemaking is captioned Wastewater Pretreatment Update, USEPA Amendments (January 1, 2020 through June 30, 2020), docket R21-8. Here are links to (1) the Board's final opinion and order, which includes the text of the adopted rule amendments, and (2) the Board's addendum, which provides tables

of information concerning the rulemaking. For more information, please contact Michael McCambridge at 312-814-6924 or michael.mccambridge@illinois.gov.

Board Adopts "Identical-in-Substance" Amendments to Ambient Air Quality Standards

On December 17, 2020, the Board adopted rule amendments to Illinois' ambient air quality standards. The amendments keep these standards "identical in substance" to the National Ambient Air Quality Standards (NAAQS).

During the first half of 2020, the United States Environmental Protection Agency (USEPA) designated a new federal reference method for monitoring sulfur dioxide and a new federal equivalent method for monitoring nitrogen dioxide in ambient air. The Board incorporated the newly designated methods into the Illinois rules. USEPA also redesignated the Lemont and Pekin areas from "nonattainment" to "attainment" for the 2010 sulfur dioxide NAAQS, but this redesignation changes no NAAQS applicability in Illinois and requires no Board action.

The Board also adopted a limited number of corrective amendments that are not based on USEPA action taken during the first half of 2020. Significant among the corrections is the deletion of incorporations by reference of two appendices to 40 C.F.R. 50. The appendices support a NAAQS that has been both revoked by USEPA as to Illinois and removed by the Board.

On November 19, 2020, the Board held a public hearing concerning the proposed rules. The adopted rules took effect on December 17, 2020. The rulemaking is captioned National Ambient Air Quality Standards, USEPA Amendments (January 1, 2020 through June 30, 2020), docket R21-1. Here are links to (1) the Board's final opinion and order, which includes the text of the adopted amendments, and (2) the Board's addendum, which provides tables of information concerning the rulemaking. For more information, please contact Hearing Officer Michael McCambridge at 312-814-6924 or michael.mccambridge@illinois.gov.

Board Adopts Final EtO Air Monitoring Rules

On January 21, 2021, the Board issued a final opinion and order adopting new Part 249 of its air pollution regulations. Part 249 requires the Illinois Environmental Protection Agency (IEPA) to monitor ambient air across Illinois for background levels of ethylene oxide (EtO). EtO is a flammable gas that has many uses, including sterilizing medical equipment. Under the adopted rules, IEPA must monitor for EtO in or around the locations of Northbrook, Schiller Park, Nilwood, Alton, and Bondville—where IEPA has monitoring stations. IEPA must monitor for six consecutive calendar months and place the air monitoring results on its website.

IEPA initiated this rulemaking by submitting a proposal to the Board on December 17, 2019. IEPA's monitoring for ambient EtO levels and the proposed rules for carrying out that monitoring are required by Section 9.16(n) of the Environmental Protection Act (415 ILCS 5/9.16(n), added by P.A. 101-22 (eff. June 21, 2019)). For first notice, the proposed rules were published in the *Illinois Register* on January 31, 2020 (44 Ill. Reg. 2216). After holding two public hearings and receiving public comment, the Board issued a second-notice opinion and

order on November 19, 2020, sending the proposed rules to the Joint Committee on Administrative Rules (JCAR) for review. At its January 12, 2021 meeting, JCAR issued a certification of no objection to the proposed rules. The adopted rules took effect on January 25, 2021.

This rulemaking is captioned Proposed New 35 Ill. Adm. Code 249, Ethylene Oxide Ambient Air Monitoring, docket R20-18. Here is a link to the Board's final opinion and order, which includes the text of the adopted rules. For more information, please contact Mark Kaminski at 312-814-3886 or mark.kaminski@illinois.gov.

For Second Notice, Board Proposes Rules Limiting VOM Emissions from Metro East Aerospace Operations

On January 21, 2021, the Board issued a second-notice opinion and order proposing amendments to Parts 211 and 219 of its air pollution regulations. The proposed amendments are tailored to address volatile organic material (VOM) emissions from aerospace manufacturing and rework operations in the Metro East counties of Madison, Monroe, and St. Clair.

An emission source in the Metro East area intends to expand its aerospace facility. The expansion would subject the facility to general VOM emission limits for miscellaneous metal parts and products coating. Guidance from the United States Environmental Protection Agency, however, recognizes that general emission limits are not appropriate for aerospace applications. The Board therefore proposed these amendments to ensure that emission limits specific to aerospace operations apply to the expanded facility.

The Illinois Environmental Protection Agency (IEPA) initiated this rulemaking by submitting a proposal to the Board on October 5, 2020. For first notice, the proposed amendments were published in the *Illinois Register* on October 30, 2020 (44 Ill. Reg. 17146, 17190). After holding two public hearings and receiving public comment, the Board issued its second-notice opinion and order, sending the proposed amendments to the Joint Committee on Administrative Rules (JCAR) for review. JCAR is expected to take up the proposed amendments at its February 16, 2021 meeting.

The rulemaking is captioned Amendments to 35 Ill. Adm. Code 219, Organic Material Emission Standards for the Metro East Area, and 35 Ill. Adm. Code 211, Definitions and General Provisions, docket R21-18. Here is a link to the Board's second-notice opinion and order, which includes the text of the proposed amendments. For more information, please contact Tim Fox at 312-814-6085 or tim.fox@illinois.gov.

BOARD ACTIONS

October 15, 2020 Regular Meeting
By teleconference:

RULEMAKINGS

R21-18 Amendments to 35 Ill. Adm. Code 219, Organic Material Emission Standards for the Metro-East Area, and 35 Ill. Adm. Code 211, Definitions and General Provisions (Air) – The Board accepted IEPA's air rulemaking proposal for hearing, granted IEPA's motion for expedited review, and proposed the rule amendments for first-notice publication without commenting on their substantive merits.

ADMINISTRATIVE CITATIONS

AC 21-1 IEPA v. Daunielle Nassar (Land) – The Board found that Nassar violated Sections 21(p)(1) and (p)(7) of the Environmental Protection Act (415 ILCS 5/21(p)(1), (p)(7) (2018)). Because there were two violations of Section 21(p), the Board ordered Nassar to pay a civil penalty of $3,000.

ADJUDICATORY CASES

PCB 21-24 Ian MacDonald v. IEPA (Water – Tax Certification) – The Board found and certified that MacDonald's specified facilities located in Mercer County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-25 Joliet Bulk, Barge & Rail, LLC (Emissions Monitoring System) v. IEPA (Air – Tax Certification) – The Board found and certified that Joliet Bulk, Barge & Rail's specified facilities located in Will County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-26 People of the State of Illinois v. Yak Mat, LLC, Birch Creek Timber, LLC, and Leon Stutzman (Land, Air – Enforcement) – The Board accepted for hearing the People's seven-count complaint concerning two sites in Greene County.

PCB 21-27 People of the State of Illinois v. Surface Maintenance Services, Inc. (Land, RCRA – Enforcement) – The Board accepted for hearing the People's two-count complaint concerning Surface Maintenance's Winnebago County facility.

PCB 21-28 People of the State of Illinois v. Surface Maintenance Services, Inc. (Land, RCRA – Enforcement) – The Board accepted for hearing the People's two-count complaint concerning Surface Maintenance's Winnebago County facility.

November 5, 2020 Regular Meeting
By teleconference

ADJUDICATORY CASES

PCB 18-54 Piasa Motor Fuels, Inc. v. IEPA (UST Appeal) – The Board authorized payment to Piasa of $817.42 in attorney's fees as a corrective action cost.

PCB 20-98 People of the State of Illinois v. Aux Sable Liquid Products, Inc., Aux Sable Liquid Products LP, Clean Harbors Environmental Services, Inc., and Waste Management of Illinois, Inc. (Land, RCRA – Enforcement) – In this enforcement action involving sites located in Grundy and Will Counties, the Board granted relief from the hearing requirement of Section 31(c)(1) of the Environmental Protection Act (415 ILCS 5/31(c)(1) (2018)), accepted a stipulation and proposed settlement, and ordered the Aux Sable respondents to pay a $13,000 civil penalty and to cease and desist from further violations.

PCB 21-18 People of the State of Illinois v. Reid Murdoch, LLC, d/b/a Reid Murdoch Center (Water, NPDES – Enforcement) – Upon receiving a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Cook County, the Board ordered publication of the required newspaper notice.

PCB 21-23 People of the State of Illinois v. Solvent Systems International, Inc. (Water, NPDES – Enforcement) – Upon receiving a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Cook County, the Board ordered publication of the required newspaper notice.

PCB 21-29 People of the State of Illinois v. Top Metal Buyers, Inc. (Air, Land, RCRA – Enforcement) – The Board accepted the People's complaint for hearing concerning Top Metal's St. Clair County facility.

PCB 21-30 Enterprise Leasing Company of Chicago, LLC v. IEPA (UST Appeal) – The Board granted a joint request for a 90-day extension to file an underground storage tank appeal on behalf of this Cook County facility.

PCB 21-33 People of the State of Illinois v. Lawrence Foods, Inc. (Air – Enforcement) – Upon receiving a complaint, a stipulation and proposed settlement agreement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a Cook County facility, the Board ordered publication of the required newspaper notice.

November 19, 2020 Regular Meeting
By teleconference

RULEMAKINGS

R20-18 Proposed New 35 Ill. Adm. Code 249 Ethylene Oxide Ambient Air Monitoring (Air) – The Board adopted a second-notice proposal in this rulemaking to amend the Board's air pollution regulations.

R21-6 RCRA Subtitle C Update, USEPA Amendments (January 1, 2020 through June 30, 2020) (Land) – The Board withdrew the proposed amendments and dismissed this docket.

ADJUDICATORY CASES

PCB 21-3 Shree Kuber, Inc. v. IEPA (UST Appeal) – The Board accepted for hearing this underground storage tank (UST) appeal involving a site in Champaign County.

PCB 21-5 Shree Kuber, Inc. v. IEPA (UST Appeal) – The Board accepted for hearing this underground storage tank (UST) appeal involving a site in Champaign County.

PCB 21-22 Zenith Energy Terminals Joliet Holdings, LLC v. IEPA (Water – Tax Certification) – Under the Property Tax Code, the Board partially granted and partially denied "pollution control facility" certification for Zenith Energy Terminals Joliet Holdings' specified facilities located in Will County.

PCB 21-31 Kip Harms v. IEPA (Water – Tax Certification) – The Board found and certified that Kip Harms' specified facilities located in Livingston County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-32 Stacey Mueller v. IEPA (Water – Tax Certification) – The Board found and certified that Stacey Mueller's specified facilities located in Henry County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-34 WIN Production, LLC-Bluffs v. IEPA (Water – Tax Certification) – The Board found and certified that WIN Production's specified facilities located in Scott County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

December 3, 2020 Regular Meeting
By teleconference

Rulemakings

R20-17 Amendments to Definition of "Class 4 etiologic agent", 35 Ill. Adm. Code 1420.102 (Biological Materials) – The Board adopted a final opinion and order in this identical-in-substance rulemaking to amend the Board's regulations on potentially infectious medical waste.

R21-8 Wastewater Pretreatment Update, USEPA Amendments (January 1, 2020 through June 30, 2020) (Water) – The Board adopted a final opinion and order in this identical-in-substance rulemaking to amend the Board's wastewater pretreatment regulations.

ADJUDICATORY CASES

PCB 19-4 People of the State of Illinois v. Peoria Barge Terminal, Inc., and Morton Salt, Inc. (Water – Enforcement) – Upon receiving two stipulations and proposed settlements, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Peoria County, the Board ordered publication of the required newspaper notice.

PCB 21-35 Tim Schmidgall v. IEPA (Water – Tax Certification) – The Board found and certified that Tim Schmidgall's specified facilities located in Logan County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-36 Jay Schmidgall v. IEPA (Water – Tax Certification) – The Board found and certified that Jay Schmidgall's specified facilities located in Logan County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-37 Randy Schmidgall v. IEPA (Water – Tax Certification) – The Board found and certified that Randy Schmidgall's specified facilities located in Logan County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-38 Sandy Creek Lane LLC v. IEPA (Water – Tax Certification) – The Board found and certified that Sandy Creek Lane's specified facilities located in Marshall County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-39 People of the State of Illinois v. Buening Implement, Inc. (Land – Enforcement) – The Board accepted the People's complaint for hearing concerning Buening Implement's Effingham County facility.

December 17, 2020 Regular Meeting
By teleconference:

RULEMAKINGS

R20-18 Proposed New 35 Ill. Adm. Code 249 Ethylene Oxide Ambient Air Monitoring (Air) – No action taken.

R21-1 National Ambient Air Quality Standards, USEPA Amendments (January 1, 2020 through June 30, 2020) (Air) – The Board adopted a final opinion and order in this identical-in-substance rulemaking to amend Illinois' ambient air quality standards in this identical-in-substance rulemaking.

ADMINISTRATIVE CITATIONS

AC 21-2 County of Jackson v. Robert Green (Land) – After Mr. Green failed to timely file a petition to contest the County's administrative citation, the Board issued a default order finding that Mr. Green violated Sections 21(p)(1), (p)(3), and (p)(7) of the Environmental Protection Act (415 ILCS 5/21(p)(1), (p)(3), (p)(7) (2018)) and imposing on him the corresponding $4,500 statutory penalty.

ADJUDICATORY CASES

PCB 18-39 Larson Farms Partnership v. IEPA (Water – Tax Certification) – The Board granted IEPA's motion to correct the property identification number. The Board also found and certified that Larson Farms' specified facilities located in DeKalb County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 20-66 People of the State of Illinois v. J & M Vehicle Management Enterprises, LLC, d/b/a B & O Used Auto Parts (Water, NPDES – Enforcement) – Upon receiving a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in DeKalb County, the Board ordered publication of the required newspaper notice.

PCB 21-18 People of the State of Illinois v. Reid Murdoch, LLC, d/b/a/ Reid Murdoch Center (Water, NPDES – Enforcement) – In this enforcement action concerning a Cook County facility, the Board granted relief from the hearing requirement of Section 31(c)(1) of the Environmental Protection Act (415 ILCS 5/31(c)(1) (2018)), accepted a stipulation and proposed settlement, and ordered Reid Murdoch to pay a $10,000 civil penalty and to cease and desist from further violations.

PCB 21-23 People of the State of Illinois v. Solvent Systems International, Inc. (Water, NPDES – Enforcement) – In this enforcement action concerning a Cook County facility, the Board granted relief from the hearing requirement of Section 31(c)(1) of the Environmental Protection Act (415 ILCS 5/31(c)(1) (2018)), accepted a stipulation and proposed settlement, and ordered Solvent Systems to pay a $9,874 civil penalty and to cease and desist from further violations.

PCB 21-33 People of the State of Illinois v. Lawrence Foods, Inc. (Air – Enforcement) – In this enforcement action concerning a Cook County facility, the Board granted relief from the hearing requirement of Section 31(c)(1) of the Environmental Protection Act (415 ILCS 5/31(c)(1) (2018)), accepted a stipulation and proposed settlement, and ordered Lawrence Foods to pay a $12,500 civil penalty and to cease and desist from further violations.

PCB 21-40 Lanan Farm v. IEPA (Water – Tax Certification) – The Board found and certified that Lanan Farm's specified facilities located in DeKalb County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

PCB 21-41 Welch Ag Services, Inc. - Macomb v. IEPA (Water – Tax Certification) – The Board found and certified that Welch Ag Services' specified facilities located in McDonough County are pollution control facilities for preferential tax treatment under the Property Tax Code (35 ILCS 200/11-10 (2018)).

January 7, 2021 Regular Meeting
By teleconference

ADJUDICATORY CASES

PCB 06-57 Midwest Generation, LLC (Fisk Generating Station) v. IEPA (Air, CAAPP – Permit Appeal) – The Board granted Midwest Generation's motion for voluntarily dismiss this Clean Air Act Permit Program (CAAPP) permit appeal concerning its Cook County power plant.

PCB 06-146 Midwest Generation, LLC (Waukegan Generating Station) v. IEPA (Air, CAAPP – Permit Appeal) – The Board granted Midwest Generation's motion to voluntarily dismiss this Clean Air Act Permit Program (CAAPP) permit appeal concerning its Lake County power plant.

PCB 08-18 Midwest Generation, LLC (Fisk Generating Station) v. IEPA (Air, CAAPP – Permit Appeal) – The Board granted Midwest Generation's motion to voluntarily dismiss this construction permit appeal concerning its Cook County power plant.

PCB 08-20 Midwest Generation, LLC (Waukegan Generating Station) v. IEPA (Air, CAAPP – Permit Appeal) – The Board granted Midwest Generation's motion to voluntarily dismiss this construction permit appeal concerning its Lake County power plant.

PCB 19-4 People of the State of Illinois v. Peoria Barge Terminal, Inc., and Morton Salt, Inc. (Water – Enforcement) – In this enforcement action concerning a Peoria County facility, the Board (1) granted relief from the hearing requirement of Section 31(c)(1) of the Environmental Protection Act (415 ILCS 5/31(c)(1) (2018)) and accepted two stipulations and proposed settlements, one between the People and Peoria Barge, and the other between the People and Morton Salt; (2) ordered Peoria Barge to pay a $20,000 civil penalty; (3) ordered Morton Salt to pay a $30,000 civil penalty; and (4) ordered Peoria Barge and Morton Salt to cease and desist from further violations.

PCB 20-8 People of the State of Illinois v. William Mucci and Debra Mucci, d/b/a B&M Properties; John Kirby; and Polly Kirby (Land, Air – Enforcement) – Upon receiving a stipulation and proposed settlement between the People and the Kirbys, along with their agreed motion for relief from the hearing requirement, in this enforcement action involving a site in LaSalle County, the Board ordered publication of the required newspaper notice.

PCB 21-20 Beth Emet The Free Synagogue v. IEPA (UST Appeal) – Having previously extended the period to appeal IEPA's underground storage tank (UST) determination concerning Beth Emet's Cook County site, the Board dismissed the case because Beth Emet failed to file an appeal.

PCB 21-27 People of the State of Illinois v. Surface Maintenance Services, Inc. (Land, RCRA – Enforcement) – Upon receiving a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Winnebago County, the Board ordered publication of the required newspaper notice.

PCB 21-42 People of the State of Illinois v. City of Colona (Water, NPDES – Enforcement) – Upon receiving a complaint, a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Henry County, the Board accepted the complaint and ordered publication of the required newspaper notice.

PCB 21-43 People of the State of Illinois v. Denis Munie d/b/a Munie Trucking & Gravel (Water, NPDES – Enforcement) – The Board accepted the People's complaint for hearing concerning Munie Trucking & Gravel's Madison County facility.

PCB 21-44 People of the State of Illinois v. Core Champaign Daniel, LLC (Water, Air – Enforcement) – The Board accepted the People's complaint for hearing concerning Core Champaign Daniel's Champaign County facility.

PCB 21-45 People of the State of Illinois v. Youth Fair Chance, Inc., d/b/a Capitol Reuse Center, and Dale Rowden (Land, RCRA – Enforcement) – The Board accepted the People's complaint for hearing concerning a facility located in Sangamon County.

PCB 21-46 People of the State of Illinois v. Western Waterproofing Company, Inc., d/b/a Western Specialty Contractors, and Springfield Branch, LLC (Land, RCRA – Enforcement) – The Board accepted the People's complaint for hearing concerning a facility located in Sangamon County.

PCB 21-47 People of the State of Illinois v. Frontier North, Inc. (Water, NPDES – Enforcement) – The Board accepted the People's complaint for hearing concerning Frontier North's Williamson County facility.

PCB 21-48 People of the State of Illinois v. City of Mount Carmel (Water, NPDES – Enforcement) – Upon receiving complaint, a stipulation, a proposed settlement, and an agreed motion for relief from the hearing requirement in this enforcement action involving a site in Wabash County, the Board accepted the complaint and ordered publication of the required newspaper notice.

CALENDAR

Thursday, February 4, 2021 11:00 AM
Board Meeting

Thursday, February 18, 2021 11:00 AM
Board Meeting

Thursday, March 4, 2021 11:00 AM
Board Meeting

Thursday, March 18, 2021 11:00 AM
Board Meeting

Thursday, April 1, 2021 11:00 AM
Board Meeting

Thursday, April 15, 2021 11:00 AM
Board Meeting

Thursday, May 6, 2021 11:00 AM
Board Meeting

Thursday, May 20, 2021 11:00 AM
Board Meeting

The events listed above are subject to change, and more events may be added. Here is a link to the Board's current calendar.

Due to the COVID-19 pandemic, there may be different ways than are customary for participating in Board hearings and meetings. Please check the Board's website (https://pcb.illinois.gov/) for information on how to participate in a specific hearing or meeting.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Division of Public Water Supplies

Illinois Environmental Protection Agency
Division of Public Water Supplies
Restricted Status List – Community Water Supplies

December 2020

SYSTEM NAME	SYSTEM ID	EPA REGION	NATURE OF PROBLEM	POPULATION SERVED	LISTING DATE
ANDOVER	IL0730100	1	NO BACKUP SOURCE	600	3/24/2016
AQUA ILLINOIS - CRYSTAL CLEAR WATER CO.	IL1115150	2	NO EMERGENCY POWER & NO PRESSURE TANK	855	9/16/1988
AQUA ILLINOIS - NUNDA	IL1115600	2	INADEQUATE PRESSURE TANK	570	4/1/2015
AVANTARA LONG GROVE	IL0971110	2	INADEQUATE PRESSURE TANK	200	12/1/2003
BAHL WATER CORP	IL0855200	1	NO ELEVATED OR GROUND STORAGE	700	12/15/1993
BARBERRY ACRES MHP	IL0915145	2	NO CHLORINE FEED SYSTEM; INADEQUATE PRESSURE TANK	61	10/31/2018
BEVERLY HILLSDALE ESTATES, LLC	IL1615530	1	INADEQUATE PRESSURE TANK	63	3/18/1983
BILL-MAR HEIGHTS MHP	IL2015345	1	INADEQUATE PRESSURE TANK	160	3/18/1983
BISHOP HILL	IL0730250	1	NO BACKUP SOURCE	137	11/14/2017
BLUFF LAKE LODGES	IL0970240	2	ARSENIC MCL VIOLATION	24	1/28/2020
BONNIE	IL0810150	7	INADEQUATE ELEVATED STORAGE CAPACITY	527	7/20/2018
BUFFALO HOLLOW FARMS WATER ASSOCIATION	IL1430080	5	INADEQUATE PRESSURE TANK	45	6/16/2008
CALHOUN COUNTY RURAL WATER DISTRICT*	IL0130010	6	TOTAL TRIHALOMETHANES MCL VIOLATION	4515	9/4/2020
CAPRON MHP	IL0075105	1	INADEQUATE PRESSURE TANK	98	3/18/1983
CARBON CLIFF	IL1610100	1	RADIUM MCL VIOLATION	2000	1/28/2020
CENTRAL MACOUPIN RURAL WATER DISTRICT	IL1170040	5	MINIMUM CHLORINE RESIDUAL VIOLATION	1825	8/29/2018
CENTURY PINES APARTMENTS	IL0150020	1	INADEQUATE PRESSURE TANK	50	12/14/1990
CHAIN-O-LAKES MHP	IL0975165	2	INADEQUATE PRESSURE TANK	81	12/15/1989
CHESTERFIELD	IL1170200	5	MINIMUM CHLORINE	180	8/29/2018

			RESIDUAL VIOLATION		
CHRISMAN	IL0450100	4	ARSENIC MCL VIOLATION & NITRITE MCL VIOLATION	1,200	1/31/2018
CLARKS MHP	IL2015425	1	INADEQUATE PRESSURE TANK	80	12/16/1991
COLONIAL MEADOWS	IL1135100	6	MINIMUM CHLORINE RESIDUAL VIOLATION & LACK OF A CERTIFIED OPERATOR	190	9/19/2018
COUNTRY VIEW ESTATES SUBDIVISION	IL1415220	1	MINIMUM CHLORINE RESIDUAL VIOLATION	120	12/12/2018
COYNE CENTER COOP	IL1615150	1	INADEQUATE PRESSURE TANK	150	12/15/1997
CRISWELL COURT MHP	IL1975105	2	INADEQUATE PRESSURE TANK	136	12/15/1989
DANFORTH	IL0750350	4	TOTAL TRIHALOMETHANE MCL VIOLATION	550	8/9/2019
DANVERS*	IL1130450	4	NO OPTIMAL CORROSION CONTROL TREATMENT	1183	9/4/2020
DAYSPRING BIBLE COLLEGE	IL0977189	2	INADEQUATE PRESSURE TANK	60	6/15/1988
DE LAND	IL1470200	4	ARSENIC MCL VIOLATION	450	5/8/2020
DES PLAINES MHP	IL0317775	2	INADEQUATE SOURCE CAPACITY & INADEQUATE PRESSURE TANK	580	3/16/1984
DONNELLSON	IL0054360	6	TOTAL TRIHALOMETHANES MCL VIOLATION AND HALOACETIC ACID MCL VIOLATION	210	7/25/2019
EAST END WATER ASSOCIATION	IL1610140	1	INADEQUATE PRESSURE TANK	40	3/15/2002
EAST MORELAND WATER ASSOCIATION	IL1975600	2	NO ELEVATED OR GROUND STORAGE	1055	9/9/2016
EDELSTEIN WATER COOPERATIVE	IL1435150	5	INADEQUATE GROUND STORAGE & NO EMERGENCY POWER	125	1/1/2015
EHLERS MHP	IL0195645	4	INADEQUATE PRESSURE TANK	112	12/17/1982
ELIZABETH (upper elevation area)	IL0850150	1	LOW SYSTEM PRESSURE	675	6/15/1999
ELM OAK MUTUAL WATER SYSTEM	IL0975736	2	RADIUM MCL VIOLATION	50	10/24/2019
EXETER - MERRITT WATER COOP	IL1710010	5	INADEQUATE STORAGE CAPACITY	765	10/1/2013
FALCON FARMS	IL1617635	1	NO ELEVATED OR GROUND STORAGE	475	10/31/2019
FAMILY MANUFACTURED HOME COMMUNITY, LLC	IL2015125	1	INADEQUATE PRESSURE TANK	240	12/17/1982
FOUR STAR CAMPGROUND	IL0990060	1	INADEQUATE PRESSURE TANK	150	6/15/1999
GRANDVIEW MHP	IL1795365	5	INADEQUATE PRESSURE TANK	300	3/18/1983
GREAT OAKS AND BEACON HILLS APARTMENTS	IL2015488	1	NO ELEVATED OR GROUND STORAGE & A RADIUM MCL VIOLATION	1816	12/17/1982

GREEN MEADOWS ESTATES OF ROCKFORD LLC	IL2015495	1	INADEQUATE GROUND STORAGE & INADEQUATE PRESSURE TANK	970	6/15/2012
GREENFIELD	IL0610150	6	HALOACETIC ACIDS MCL VIOLATION	1200	10/2/2019
HARVEST ESTATES	IL0915165	2	INADEQUATE PRESSURE TANK	54	4/18/2019
HAWTHORN ESTATES SUBDIVISION	IL0630030	2	INADEQUATE PRESSURE TANK	49	4/7/2017
HICKORY HILLS 2ND ADDITION	IL0730080	1	ARSENIC MCL VIOLATION	42	1/25/2019
HIGHLAND SUBDIVISON	IL0895530	2	INADEQUATE PRESSURE TANK	50	9/16/1983
HILLCREST	IL1410250	1	INADEQUATE SOURCE CAPACITY	1400	2/13/2018
HILLSDALE PROPERTIES	IL1615728	1	INADEQUATE PRESSURE TANK	60	1/14/1982
HILLVIEW SUBDIVISION	IL1975800	2	INADEQUATE PRESSURE TANK	100	3/15/1985
HILLVIEW*	IL0610200	6	NITRATE MCL VIOLATION	150	11/6/2020
HOLLY HOCK HILL MHP	IL0975245	2	INADEQUATE PRESSURE TANK	52	12/16/1983
HONEYCUTT HILL MHP LLC	IL1955225	1	INADEQUATE PRESSURE TANK	75	9/17/1982
HYDE-A-WAY LAKES	IL0935300	2	NO CHLORINE FEED SYSTEM	50	10/31/2019
IL AMERICAN - ANDALUSIA (upper elevation area)	IL1610050	1	LOW SYSTEM PRESSURE	1050	10/1/2003
INGALLS PARK SUBDIVISION	IL1975880	2	NO ELEVATED OR GROUND STORAGE	744	9/16/1983
LIBERTY PARK HOMEOWNERS ASSOCIATION	IL0435600	2	INADEQUATE GROUND STORAGE CAPACITY	837	9/17/1992
LIMA	IL0010400	5	INADEQUATE SOURCE CAPACITY & NITRATE MCL VIOLATION	163	5/4/2016
LINDENWOOD WATER ASSOCIATION	IL1415300	1	INADEQUATE PRESSURE TANK	35	1/13/1982
LINWAY ESTATES MHP	IL0315935	2	NO ELEVATED OR GROUND STORAGE	450	2/28/2017
LISBON NORTH, INC.	IL0631000	2	INADEQUATE PRESSURE TANK	30	9/14/1990
LYNNWOOD WATER CORPORATION	IL0995336	1	INADEQUATE PRESSURE TANK	110	3/18/1983
MALTA	IL0370350	1	NO AUTO-START GENERATOR & INADEQUATE HIGH SERVICE PUMP CAPACITY	1175	6/15/2012
MANCUSO VILLAGE PARK MHP	IL2015545	1	INADEQUATE PRESSURE TANK	500	6/18/1982
MANTENO MHP	IL0915385	2	INADEQUATE PRESSURE TANK	144	12/14/1990
MENDOTA*	IL0990550	1	HALOACETIC ACIDS MCL	7273	10/30/2020
MITCHELLSVILLE PWD	IL1655200	7	LOW SYSTEM PRESSURE	1989	10/1/2012
MONTROSE	IL0490350	4	TOTAL TRIHALOMETHANES MCL VIOLATION	201	12/18/2019
NEPONSET	IL0110700	1	MINIMUM CHLORINE RESIDUAL VIOLATION	374	4/17/2019
NORTH TAZEWELL PWD**	IL1795780	5	HALOACETIC ACIDS MCL AND TOTAL TRIHALOMETHANES MCL VIOLATIONS	8300	1/9/2020
OAK RIDGE SD	IL2035300	1	INADEQUATE PRESSURE TANK	240	3/20/1981
OSCO MUTUAL WATER SUPPLY COMPANY, INC.	IL0735200	1	INADEQUATE PUMP CAPACITY	115	12/15/1989

OTTAWA ESTATES MHP	IL0995225	1	INADEQUATE PRESSURE TANK	115	3/18/1983
PARADISE MANOR MHP	IL1617665	1	INADEQUATE PRESSURE TANK	193	2/19/1982
PARK MEADOWLAND WEST MHP	IL0075235	1	INADEQUATE PRESSURE TANK	100	3/18/1982
PAULS MHP	IL0975485	2	INADEQUATE PRESSURE TANK	38	12/16/1983
PENFIELD PUBLIC WATER DISTRICT*	IL0195100	4	NO OPTIMAL CORROSION CONTROL TREATMENT	150	9/4/2020
PORTS SULLIVAN LAKE OWNERS ASSOCIATION	IL0971160	2	INADEQUATE PRESSURE TANK	293	6/15/1999
PRAIRIE ROAD PUMP ASSOCIATION	IL2015100	1	INADEQUATE PRESSURE TANK	150	1/1/2006
RAINBOW LANE MHP	IL2015645	1	INADEQUATE PRESSURE TANK	83	6/17/1983
ROCKLAND MHP	IL0975585	2	INADEQUATE PRESSURE TANK	165	12/16/1983
ROLLING GREEN ESTATES MHP	IL1415245	1	INADEQUATE PRESSURE TANK	215	6/14/1985
ROYAL OAKS MHP	IL1115145	2	INADEQUATE PRESSURE TANK	114	6/17/1983
SCALES MOUND	IL0850400	1	LOW SYSTEM PRESSURE (at elev. above 990 ft. MSL)	401	9/15/1997
SENECA MOBILE HOMES LLC**	IL0995425	1	INADEQUATE PRESSURE TANK	73	9/17/1982
SHANGRI-LA MHP	IL1415285	1	INADEQUATE PRESSURE TANK	444	9/16/1983
SHANNON	IL0150300	1	RADIUM MCL VIOLATION	758	8/4/2016
SHAWNITA TRC WATER ASSOCIATION	IL1977690	2	INADEQUATE PRESSURE TANK	135	9/17/1992
SILVIS HEIGHTS WATER CORP	IL1615750	1	NO EMERGENCY GENERATOR	1600	12/1/2003
SIX OAKS MHP	IL2015685	1	INADEQUATE PRESSURE TANK	48	6/18/1982
STEPHENSON MOBILE ESTATES	IL1775235	1	INADEQUATE PRESSURE TANK AND INADEQUATE CHLORINE RESIDUAL	223	6/17/1983
SUBURBAN APARTMENTS (DE KALB UNIV DVL)	IL0375148	1	INADEQUATE PRESSURE TANK	1050	12/16/1992
SUMNER	IL1010300	7	LOW SYSTEM PRESSURE (areas served by undersized water mains)	1108	12/13/1985
SUNNY HILLS ESTATES SUBDIVISION	IL0735300	1	INADEQUATE PRESSURE TANK	525	6/15/2000
SUNNYLAND SUBDIVISION	IL1977730	2	INADEQUATE SOURCE CAPACITY & INADEQUATE PRESSURE TANK	300	6/12/2018
SWEDONA WATER ASSOCIATION	IL1315200	1	INADEQUATE PRESSURE TANK	157	6/15/1990
SYLVAN LAKE 1ST SUBDIVISION	IL0977100	2	INADEQUATE PRESSURE TANK	210	6/14/1991
TABLE GROVE*	IL0570900	5	TOTAL TRIHALOMETHANES MCL VIOLATION	416	9/4/2020
TIMBER RIDGE MOBILE ESTATES	IL1775255	1	INADEQUATE PRESSURE TANK	150	6/17/1996
TOLONO	IL0191000	4	TOTAL TRIHALOMETHANE MCL VIOLATION	2700	8/5/2020
TOWNERS SUBDIVISION	IL0977250	2	INADEQUATE PRESSURE TANK	204	1/14/1982
TRIANGLE MHP	IL0195925	4	ARSENIC MCL VIOLATION & MINIMUM CHLORINE RESIDUAL VIOLATION	90	6/15/2012
UTL INC - LAKE HOLIDAY	IL0995200	1	INADEQUATE TREATMENT CAPACITY	6479	4/1/2015

UTL INC - LAKE WILDWOOD UTILITIES CORP	IL1235200	1	INADEQUATE GROUND STORAGE & HIGH SERVICE PUMP CAPACITY	950	10/22/2015
UTL INC - WALK-UP WOODS WATER COMPANY	IL1115800	2	NO ELEVATED OR GROUND STORAGE	781	12/17/1982
VALLEY VIEW SUBDIVISION (WOODFORD COUNTY)	IL2030010	1	INADEQUATE PRESSURE TANK	100	6/15/2012
VERMONT	IL0570950	5	TOTAL TRIHALOMETHANE MCL VIOLATION & HALOACETIC ACID MCL VIOLATION	660	5/27/2020
VIETZEN MHP	IL0437245	2	INADEQUATE PRESSURE TANK & LACK OF A CHLORINE FEED SYSTEM	145	6/17/1983
WILLOWAY TERRACE MHP	IL0317595	2	NO ELEVATED OR GROUND STORAGE & INADEQUATE SOURCE CAPACITY	900	6/15/1984
WINSLOW*	IL1770550	1	NO OPTIMAL CORROSION CONTROL TREATMENT	350	9/4/2020

Illinois Environmental Protection Agency
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SYSTEM NAME	SYSTEM ID	EPA REGION	NATURE OF PROBLEM	POPULATION SERVED	LISTING DATE
AIR VIEW MHP	IL1615185	1	NO BACKUP SOURCE	164	8/7/2020
ANCHOR	IL1130050	4	ONLY ONE WELL	155	8/28/2020
AQUA ILLINOIS - INDIANOLA*	IL1830500	4	ONLY ONE WELL	224	12/11/2020
BEVERLY HILLSDALE ESTATES, LLC	IL1615530	1	ONLY ONE WELL	63	8/14/2020
BROWNING*	IL1690050	5	ONLY ONE WELL	175	12/2/2020
BUFFALO HOLLOW FARMS WATER ASSOCIATION	IL1430080	5	ONLY ONE WELL	45	7/22/2020
BUSY BEE MHP #1*	IL1975195	2	ONLY ONE WELL	25	12/4/2020
CAMP GROVE	IL1235100	1	ONLY ONE WELL	75	6/24/2020
CANTON	IL0570250	5	INADEQUATE TREATMENT CAPACITY	13932	3/15/2007
CARBON HILL	IL0630100	2	INADEQUATE TREATMENT CAPACITY	392	12/14/2016
CEDAR BROOK ESTATES SUBDIVISION	IL1615170	1	ONLY ONE WELL	200	8/7/2020
CEDAR POINT WATER COMPANY	IL0995040	1	ONLY ONE WELL	300	8/26/2020
CHAIN-O-LAKES MHP	IL0975165	2	ONLY ONE WELL	81	8/28/2020
CHERRYDALE SUBDIVISION	IL1615120	1	ONLY ONE WELL	80	8/5/2020
CHIGAKWA PARK ESTATES	IL1615140	1	ONLY ONE WELL	53	8/7/2020
CLARKS MHP*	IL2015425	1	ONLY ONE WELL	80	12/4/2020
COAL CITY	IL0630200	2	INADEQUATE TREATMENT CAPACITY	5587	12/14/2016
COLONIAL MEADOWS	IL1135100	6	ONLY ONE WELL	190	9/26/2020
COUNTRY LANE MHP	IL1135385	4	ONLY ONE WELL	35	6/24/2020
COUNTRY VIEW ESTATES SUBDIVISION	IL1415220	1	ONLY ONE WELL	120	7/15/2020
DIXIE ESTATES SUBDIVISION*	IL1975520	2	ONLY ONE WELL	180	12/9/2020
EAST END WATER ASSOCIATION	IL1610140	1	ONLY ONE WELL	40	7/31/2020
EAST LAWN WATER ASSOCIATION	IL1615100	1	ONLY ONE WELL	160	8/5/2020
EAST LYNN COMMUNITY WATER SYSTEM*	IL1835200	4	ONLY ONE WELL	112	12/11/2020
EBERTS 3RD ADDITION	IL1615330	1	ONLY ONE WELL	99	8/12/2020
EDELSTEIN WATER COOPERATIVE	IL1435150	5	ONLY ONE WELL	125	7/24/2020
ELM OAK MUTUAL WATER SYSTEM	IL0975736	2	ONLY ONE WELL	50	8/28/2020
ESQUIRE ESTATES MHP	IL1435245	5	ONLY ONE WELL	28	7/29/2020
EVERGREEN VILLAGE SUBDIVISION	IL1615310	1	ONLY ONE WELL	130	8/12/2020
FOUR STAR CAMPGROUND	IL0990060	1	ONLY ONE WELL	150	8/26/2020
FOX CREEK FARMS WATER COMPANY	IL1435750	5	ONLY ONE WELL	221	7/29/2020
GARDEN STREET IMPROVEMENT ASSOCIATION*	IL1975376	2	ONLY ONE WELL	54	12/9/2020
GREEN ACRES MHP	IL1035165	1	ONLY ONE WELL	200	8/26/2020
HARMON	IL1030300	1	ONLY ONE WELL	149	8/26/2020
HICKORY HILLS 2ND ADDITION	IL0730080	1	ONLY ONE WELL	42	8/12/2020
HIGHLAND LAKE WATER COMPANY	IL0970255	2	ONLY ONE WELL	36	8/26/2020
HILLCREST	IL1410250	1	INADEQUATE STORAGE CAPACITY	1400	11/2/2017
HILLSDALE PROPERTIES	IL1615728	1	ONLY ONE WELL	60	6/24/2020
HILLVIEW SUBDIVISION*	IL1975800	2	ONLY ONE WELL	100	12/9/2020
HOLLANDS GROVE COURT SUBDIVISION*	IL1795300	5	ONLY ONE WELL	40	12/2/2020
HOLLY HOCK HILL MHP	IL0975245	2	ONLY ONE WELL	52	8/28/2020
HOPEWELL	IL1235150	1	ONLY ONE WELL	420	7/1/2020
IL AMERICAN - LEONORE	IL0990400	1	ONLY ONE WELL	111	8/26/2020

IL PRAIRIE ESTATE SBDV WATER ASSN	IL0995300	1	ONLY ONE WELL	112	8/26/2020
INDIAN BLUFFS SUBDIVISION	IL1615520	1	ONLY ONE WELL	150	8/14/2020
INDIAN CREEK HOMEOWNERS AND WATER ASSN	IL1135250	4	ONLY ONE WELL	240	6/17/2020
JOHNSBURG 1	IL1110040	2	ONLY ONE WELL	174	8/28/2020
KNOLLS EDGE SUBDIVISION	IL1415250	1	ONLY ONE WELL	100	7/17/2020
LAFAYETTE*	IL1750100	1	ONLY ONE WELL	250	12/2/2020
LAKE WILDWIND LLC*	IL2035125	1	ONLY ONE WELL	200	12/4/2020
LAND AND WATER ASSOCIATION	IL0995050	1	ONLY ONE WELL	100	8/26/2020
LASALLE	IL0990300	1	INADEQUATE SOURCE CAPACITY & INADEQUATE TREATMENT CAPACITY	9700	11/1/2004
LINDENWOOD WATER ASSOCIATION	IL1415300	1	ONLY ONE WELL	35	7/22/2020
LYNNWOOD WATER CORPORATION	IL0995336	1	ONLY ONE WELL	110	8/26/2020
M C L W SYSTEM, INC.	IL1315150	1	ONLY ONE WELL	98	7/10/2020
MACOMB	IL1090350	5	INADEQUATE CLARIFIER CAPACITY	11309	12/14/2016
MARSEILLES SOUTH	IL0990110	1	ONLY ONE WELL	100	8/26/2020
MASON CITY	IL1250350	5	INADEQUATE STORAGE CAPACITY	2558	1/1/2006
MAYFAIR SUBDIVISION*	IL1795750	5	ONLY ONE WELL	90	12/11/2020
MC NABB	IL1550150	1	ONLY ONE WELL	310	6/11/2020
MILL POINT MHP*	IL2035165	1	ONLY ONE WELL	160	12/4/2020
MOUND CITY	IL1530100	7	ONLY ONE WELL	588	6/5/2020
MOUND PWD	IL1635050	6	INADEQUATE PLANT CAPACITY	2200	6/17/1996
MOUNT MORRIS ESTATES MHP	IL1415185	1	ONLY ONE WELL	395	7/15/2020
NORTH HENDERSON	IL1310300	1	ONLY ONE WELL	187	7/2/2020
NORTH ILLINOIS UTILITIES	IL1115850	2	ONLY ONE WELL	1500	8/28/2020
OAK GROVE MHP - ROCK ISLAND COUNTY*	IL1617785	1	ONLY ONE WELL	100	12/2/2020
OTTAWA ESTATES MHP	IL0995225	1	ONLY ONE WELL	115	8/26/2020
PARADISE MANOR MHP*	IL1617665	1	ONLY ONE WELL	200	11/20/2020
PAULS MHP	IL0975485	2	ONLY ONE WELL	38	8/28/2020
PHIL-AIRE ESTATES MHP*	IL2015625	1	ONLY ONE WELL	80	12/4/2020
PORT BARRINGTON SHORES SUBDIVISION	IL0971120	2	ONLY ONE WELL	67	8/26/2020
PRAIRIE VIEW WATER ASSOCIATION*	IL1795900	5	ONLY ONE WELL	35	12/11/2020
QUINCY	IL0010650	5	INADEQUATE CLARIFIER CAPACITY	45000	8/3/2016
RAINBOW LANE MHP*	IL2015645	1	ONLY ONE WELL	83	12/4/2020
RAINBOW RIDGE	IL1615580	1	ONLY ONE WELL	46	8/14/2020
RIDGEWOOD LEDGES WATER ASSOCIATION	IL1615670	1	ONLY ONE WELL	430	6/24/2020
ROLLING GREEN ESTATES MHP	IL1415245	1	ONLY ONE WELL	215	7/17/2020
SANTA FE ESTATES WATER ASSOCIATION	IL1435490	5	ONLY ONE WELL	84	7/29/2020
SEATON	IL1310350	1	ONLY ONE WELL	200	7/2/2020
SENECA MOBILE HOMES LLC**	IL0995425	1	ONLY ONE WELL	73	8/26/2020
SIX OAKS MHP*	IL2015685	1	ONLY ONE WELL	48	12/4/2020
SPIN LAKE HOMEOWNERS ASSOCIATION	IL1135140	4	ONLY ONE WELL	200	6/16/2020
STRATFORD WEST APARTMENTS	IL1095200	5	ONLY ONE WELL	44	8/26/2020
STRAWN	IL1050700	4	ONLY ONE WELL	133	8/26/2020
SUBURBAN HEIGHTS SUBDIVISION*	IL1615800	1	ONLY ONE WELL	57	11/20/2020
TENNANTS SHADY OAKS SUBDIVISION	IL1615540	1	ONLY ONE WELL	44	8/14/2020
TISKILWA	IL0111050	1	INADEQUATE STORAGE CAPACITY	830	9/20/2017
TOWER RIDGE SUBDIVISION*	IL1615780	1	ONLY ONE WELL	70	11/20/2020
UTL INC - CAMELOT*	IL1975200	2	ONLY ONE WELL	575	12/9/2020
UTL INC - CHERRY HILL WATER COMPANY*	IL1975280	2	ONLY ONE WELL	624	12/9/2020

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SYSTEM NAME	SYSTEM ID	EPA REGION	NATURE OF PROBLEM	POPULATION SERVED	LISTING DATE
WATER WERKS	IL1615130	1	ONLY ONE WELL	90	8/5/2020
WHITE HALL	IL0610400	6	INADEQUATE STORAGE CAPACITY	2900	10/1/2012
WINDING CREEK ESTATES*	IL1615850	1	ONLY ONE WELL	160	11/20/2020
WINSLOW*	IL1770550	1	ONLY ONE WELL	350	12/2/2020
WITT	IL1350850	5	INADEQUATE TREATMENT CAPACITY	991	3/17/2008

WATER SYSTEMS REMOVED FROM PREVIOUS LIST
MONTGOMERY COUNTY WATER COMPANY
WOODLAND

***WATER SYSTEMS ADDED**
AQUA ILLINOIS - INDIANOLA
BROWNING
BUSY BEE MHP #1
CALHOUN COUNTY RURAL WATER DISTRICT
CLARKS MHP
DANVERS
DIXIE ESTATES SUBDIVISION
EAST LYNN COMMUNITY WATER SYSTEM
GARDEN STREET IMPROVEMENT ASSOCIATION
HILLVIEW
HILLVIEW SUBDIVISION
HOLLANDS GROVE COURT SUBDIVISION
LAFAYETTE
LAKE WILDWIND LLC
MAYFAIR SUBDIVISION
MENDOTA
MILL POINT MHP
OAK GROVE MHP-ROCK ISLAND COUNTY
PARADISE LANE MHP
PENFIELD PUBLIC WATER DISTRICT
PHIL-AIRE ESTATES MHP
PRAIRIE VIEW WATER ASSOCIATION
RAINBOW LANE MHP
SIX OAKS MHP
SUBURBAN HEIGHTS SUBDIVISION
TABLE GROVE
TOWER RIDGE SUBDIVISION
UTL INC - CAMELOT
UTL INC - CHERRY HILL WATER COMPANY
WINDING CREEK ESTATES
WINSLOW

****WATER SYSTEM UPDATES**

NORTH TAZEWELL PWD
SENECA MOBILE HOMES LLC

Restricted Status/Critical Review

The Environmental Protection Act prohibits the Agency from issuing a construction permit that will cause or extend a violation. A construction permit to expand the distribution system cannot be granted when a water supply has a maximum contaminant level or treatment technique violation, an inadequate source of raw water supply, inadequate treatment plant capacity, finished water storage or distribution system pressure. A Restricted Status List is published quarterly in the Illinois Pollution Control Board Environmental Register to notify those persons considering expansion of a water supply distribution system of that status before large sums of money have been spent on items such as land acquisition, financing and engineering fees. A companion Critical Review List is published concurrently with the Restricted Status List and has the water supplies that are approaching a point where the supply could be placed on Restricted Status. A permit application from a supply on Critical Review will be examined carefully to ensure that the proposed construction will not cause a violation. Restricted Status and Critical Review are presented as a combined list with the status of the water supply denoted as either RS (Restricted Status) or CR (Critical Review). The current list reflects the status as of January 2, 2018. An asterisk, *, beside the water supply indicates public water supplies that have been added to the Restricted Status/Critical Review list since the previous publication.

Restricted Status List

The Restricted Status List was developed to give additional notification to officials of public water supplies which are in violation of 35 Ill. Adm. Code, Subtitle F: Public Water Supplies, Chapter I or the Illinois Environmental Protection Act.
The Restricted Status List will include all Public Water Supplies for which the Agency has information indicating a violation of any of the following requirements: Finished water quality requirements of 35 Ill. Adm. Code, Part 604, Subparts B and C; maintenance of adequate pressure on all parts of the distribution system under all conditions of demand; meeting raw water quantity requirements of 35 Ill. Adm. Code 604.502; or maintenance of treatment facilities capable of providing water "assuredly adequate in quantity" as required by Section 18 of the Illinois Environmental Protection Act.
A public water supply on the Restricted Status List will not be issued permits for water main extensions, except for certain limited situations, or unless the supply has been granted a variance from the Illinois Pollution Control Board for the violation, or from permit issuance requirements of Section 39 of the Act.
This list is continually being revised as new information becomes available, and therefore, specific inquiries as to the status of any public water supply should be directed to the Division of Public Water Supplies for final determination.

Critical Review List

The Critical Review List was developed to give additional notification to officials of public water supplies which may be close to being in violation of 35 Ill. Adm. Code, Subtitle F: Public Water Supplies, Chapter I or the Illinois Environmental Protection Act.
A supply will be placed on the Critical Review List when Agency records indicate that it is approaching any of the violations that would place it on the Restricted Status List.

This list is continually being revised as new information becomes available, and therefore, specific inquiries as to the status of any public water supply should be directed to the Division of Public Water Supplies for final determination.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Office of Toxicity Assessment

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

HEALTH ADVISORY FOR PERFLUOROOCTANOIC ACID (PFOA) CHEMICAL ABSTRACT SERVICES REGISTRY NUMBER (CASRN) 335-67-1

Prepared by
Office of Toxicity Assessment
Illinois Environmental Protection Agency
January 28, 2021

REASON FOR ACTION

As a result of a Per- and Polyfluoroalkyl Substances (PFAS) sampling initiative of community water supplies (CWS), undertaken by the Illinois Environmental Protection Agency (Illinois EPA), Perfluorooctanoic Acid (PFOA) has been confirmed in a well at a CWS. In accordance with 35 Illinois Administrative Code 620.605(a), the Illinois EPA is issuing a health advisory for Perfluorooctanoic Acid. Section 620.605(a) directs the Illinois EPA to issue a health advisory for a chemical substance if all of the following conditions are met:

1) A community water supply well is sampled, and a substance is detected and confirmed by resampling;

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

2) There is no standard under Section 620.410 for such chemical substance; and

3) The chemical substance is toxic or harmful to human health according to the procedures of Appendix A, B, or C.

The health advisory guidance level for PFOA is 0.000002 milligrams per liter (mg/L), or 2 nanograms per liter (ng/L) or parts per trillion (ppt).

The health advisory will be published in the Environmental Register (publication of the Illinois Pollution Control Board) and placed at the website: https://pcb.illinois.gov/Resources/News

The health advisory will also be placed on Illinois EPA's website at: https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

PURPOSE OF A HEALTH ADVISORY

In accordance with 35 Ill. Adm. Code 620.601, the purpose of a health advisory is to provide guidance levels that, in the absence of an applicable groundwater quality standard under Section 620.410, must be considered by Illinois EPA in: 1) establishing groundwater cleanup or action levels whenever there is a release or substantial threat of a release of a hazardous substance, pesticide, or another contaminant that represents a significant hazard to public health or the environment; 2) determining whether a community water supply is taking its raw water from a site or source consistent with regulatory requirements; and 3) developing Illinois Pollution Control Board (Board) rulemaking proposals for new or revised numerical standards.

Health advisories serve as informal technical guidance, intended to provide information about contaminant exposures and potential public health impacts. The guidance level represents concentrations in drinking water at which no adverse health effects are expected to occur. Guidance levels are not enforceable or intended to be used as drinking water standards, also known as maximum contaminant levels (MCLs).

HEALTH ADVISORY GUIDANCE LEVEL FOR PFOA

Through issuance of this Health Advisory, Illinois EPA is providing public notice of its guidance level for PFOA in drinking water. PFOA meets the definition of a carcinogen pursuant to the relevant provisions of the Board's Part 620 regulations. In 2017, the World Health Organization's International Agency for Research on Cancer (IARC) classified PFOA as a "2B" carcinogen (possibly carcinogenic to humans).

For carcinogenic health effects, the guidance level is 0.000002 milligrams per liter (mg/L), or 2 nanograms per liter (ng/L) or parts per trillion (ppt). For non-carcinogenic health effects, the guidance level is 0.000021 milligrams per liter (mg/L), or 21 nanograms per liter (ng/L) or parts

per trillion (ppt). Illinois EPA designated the guidance level for carcinogenic effects as the final guidance level for PFOA, as it is protective for both cancer and non-cancer effects.

Section 620.605 prescribes the methods for developing guidance levels for carcinogens and non-carcinogens. Briefly, this method specifies that the United States Environmental Protection Agency (U.S. EPA) MCL or maximum contaminant level goal (MCLG) is the guidance level, if available. If there is no MCL or MCLG for the substance, the guidance level for the chemical is either the Human Non-Threshold Toxicant Advisory Concentration (HNTAC) for carcinogens or the Human Threshold Toxicant Advisory Concentration (HTTAC) for non-carcinogens as determined in accordance with procedures in Section 620.Appendix A. U.S. EPA has not published an MCL or MCLG for PFOA.

Appendix A specifies, in prescribed order, the toxicological data to be used in developing guidance levels. To determine appropriate toxicological data in accordance with nationally accepted guidelines, pursuant to the Illinois Groundwater Protection Act (415 ILCS 55-8(a)), Illinois EPA relied upon U.S. EPA guidance titled, *"Tier 3 Toxicity Value White Paper"* (paper), dated May 16, 2013, prepared by the U.S. EPA Office of Solid Waste and Emergency Response (OSWER) Human Health Regional Risk Assessors Forum. The paper lists a hierarchy of sources to be used when determining an appropriate toxicological value for use in human health assessments. The hierarchy for selection of toxicity values is as follows:

Tier 1: U.S. EPA Integrated Risk Information System (IRIS).

Tier 2: U.S. EPA Provisional Peer-Reviewed Toxicity Values (PPRTVs).

Tier 3: In the order in which they are presented:

1) U.S. Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) Dose Minimal Risk Levels (dose MRLs).

2) California EPA Office of Environmental Health Hazard Assessments (OEHHA).

3) PPRTV "Appendix" Values.

4) Health Effects Assessment Summary Table (HEAST).

Cancer Assessment

As stated above, PFOA meets the definition of a carcinogen pursuant to the relevant provisions of the Board's Part 620 regulations and a determination by IARC.

California EPA's OEHHA developed a cancer oral slope factor (SF_o) of 143 (1.43E+02) $(mg/kg\text{-}day)^{-1}$ for liver and pancreatic tumors in male rats, based on an extrapolation of data from PFOA cancer studies by the United States Department of Health and Human Services, National

Toxicology Program (NTP), titled, "*TR-598: Technical report pathology tables and curves – PFOA*", published in 2018. Using a 5% benchmark response, OEHHA calculated an animal benchmark dose lower bound ($BMDL_{05}$) of 0.000648 mg/kg-day from animal bioassay data, yielding a human $BMDL_{05}$ (equivalent to a human equivalency dose or HED) of 0.00035 milligrams per kilogram per day (mg/kg-day) and an SF_o equal to 143 $(mg/kg\text{-}day)^{-1}$.

Using California EPA's OEHHA SF_o of 143 (1.43E+02) $(mg/kg\text{-}day)^{-1}$, and the procedures outlined in Section 620.Subpart F, the calculated HNTAC for drinking water equivalent to a one in one million cancer risk is 0.0000006 mg/L, or 0.6 ng/L or ppt.

Non-Cancer Assessment

ATSDR published a peer reviewed toxicological (tox) profile titled, "*Toxicological Profile for Perfluoroalkyls"* (tox profile), for four PFAS, including PFOA, in the Federal Register on July 19, 2018 for a 60-day public comment period. The comment period closed on September 17, 2018. The toxicity values in the tox profile are considered "draft" until they have been finalized following the public comment period. Following the close of the comment period, ATSDR submitted their toxicological profile to the Office of Management and Budget in December 2019. In November 2018, ATSDR published health-based drinking water MRLs using the recommended dose MRLs included within the tox profile.

ATSDR's tox profile recommends an intermediate dose MRL equal to 0.000003 (3E-06) mg/kg-day. The value is based on skeletal alterations and altered motor function in mice from exposure through gestation and lactation from developmental toxicity studies by Onishchenko et al., titled, "*Prenatal exposure to PFOS or PFOA alters motor function in mice in a sex-related manner*", published in 2011, and Koskela et al., titled, "*Effects of developmental exposure to perfluorooctanoic acid (PFOA) on long bone morphology and bone cell differentiation*", published in 2016. The Wambaugh pharmacokinetic (PK) model was used to derive a predicted time-weighted average (TWA) serum concentration from a lowest observed adverse effects level (LOAEL) of 0.3 mg/kg-day in mice. A no observed adverse effects level (NOAEL) was not determined from the studies. The TWA serum concentration was then used to calculate a HED of 0.000821 in units of mg/kg-day.

A total uncertainty factor (UF) of 300 (UF of 10 to account for intrahuman variability, UF of 3 to account for toxicodynamic differences between animals and humans, and UF of 10 for account for a LOAEL to NOAEL conversion factor) was applied to the HED to derive its dose MRL.

$$dose\ MRL = \frac{HED}{UF}$$

$$dose\ MRL = \frac{0.000821\ mg/kg\text{-}day}{300}$$

$$dose\ MRL = 0.0000027\ mg/kg\text{-}day$$

Rounded to one significant digit:

$$dose\ MRL = 0.000003\ mg/kg\text{-}day$$

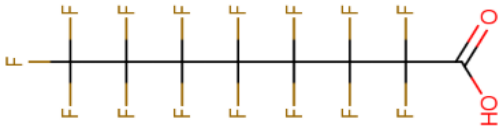
Using the ATSDR dose MRL of 0.000003 (3E-06) mg/kg-day, and the procedures outlined in Section 620.Appendix A, the calculated HTTAC for drinking water is 0.000021 mg/L, or 21 ng/L or ppt for non-carcinogen effects.

CHEMICAL CHARACTERISTICS AND POTENTIAL ADVERSE HEALTH EFFECTS

General Description of PFOA

Perfluorooctanoic Acid (CASRN 335-67-1), also known as pentadecafluoro-octanoic acid, or PFOA, is a synthetic chemical which is part of a larger class of chemicals referred to as per- and polyfluoroalkyl substances. PFAS have been manufactured since the middle 20th Century and are known for their chemical and physical properties that impart oil and water repellency, temperature resistance, and friction reduction to a wide range of products, including, but not limited to, textile coatings, paper products, food wrappers, cosmetic and personal care products, non-stick cookware and fire-fighting foams. PFAS are also used in the semiconductor, aerospace, oil production, mining, and metal plating industries, to name a few. PFAS enter the environment through industrial manufacturing and the use and disposal of PFAS-containing products. The chemical and physical properties of PFOA make it mobile, persistent, and bioaccumulative, meaning fish and other animals may accumulate PFOA in animal tissue when their food sources are contaminated with PFOA. PFOA is not known to degrade in the environment.

Structural Identifier



Chemical Identifier

$C_7F_{15}COOH$

Potential Adverse Health Effects of PFOA

Epidemiology studies on humans suggest associations between PFOA exposure and several possible health outcomes, such as:

- Pregnancy-induced hypertension/pre-eclampsia
- Liver damage
- Increased serum lipids, primarily total cholesterol and LDL cholesterol
- Increased thyroid disease
- Decreased antibody response to vaccines
- Decreased fertility
- Decreased birth weight

Most information regarding health effects of PFOA is derived from animal studies, primarily via the ingestion, or oral exposure, route. Laboratory studies observed the following effects in animals exposed to PFOA:

- Liver damage
- Neurodevelopmental effects
- Suppressed immune response
- Skeletal malformations
- Decreased weight of offspring

Carcinogenic Potential

Section 620.110 defines a carcinogen as a contaminant that is classified as: 1) a Category A1 or A2 Carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH); 2) a Category 1 or 2A/2B Carcinogen by IARC; 3) a "Human Carcinogen" or "Anticipated Human Carcinogen" by the U.S. Department of Health and Human Service National Toxicological Program (NTP); or 4) a Category A or B1/B2 Carcinogen by the U.S. EPA in IRIS or a Final Rule issued in a Federal Register notice by the U.S. EPA. PFOA meets the definition of a carcinogen, as it is classified as a 2B possible carcinogen by IARC. The classification is based on evidence of increased risk for kidney and testicular cancers in humans. Additional research has found evidence of liver and pancreatic cancers.

ATTACHMENT TO HEALTH ADVISORY
FOR
PERFLUOROOCTANOIC ACID (PFOA)
CASRN 335-67-1

OVERVIEW OF KEY STUDIES

For information regarding the studies used by California OEHHA for derivation of its SF_o and ATSDR for derivation of its dose MRL, refer to the following documents:

California OEHHA SF_o: https://oehha.ca.gov/media/downloads/water/chemicals/nl/final-pfoa-pfosnl082119.pdf

ATSDR dose MRL: https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237

DERIVATION OF THE HEALTH ADVISORY FOR PFOA

The first step in the derivation of a health advisory is to determine whether the chemical substance presents a carcinogenic risk to humans. In 2017, the IARC classified PFOA as a "2B" carcinogen. The classification meets the definition of a carcinogen pursuant to Section 620.110.

For a guidance level equal to a one-in-one million cancer risk, the human non-threshold toxicant advisory concentration is calculated by the following equation specified at Section 620.605(b):

$$HNTAC = \frac{TR \bullet BW \bullet AT \bullet 365 \frac{days}{year}}{SF_o \bullet IR \bullet EF \bullet ED}$$

Where:

HNTAC = Human non-threshold toxicant advisory concentration in milligrams per liter (mg/L).

TR = Target cancer risk equal to one in one million risk (1.0E-06).

BW = Body weight equal to an average adult (70 kg).

AT = Averaging time for carcinogens (70 years).

SF_o = Oral slope factor for PFOA (143 $(mg/kg\text{-}day)^{-1}$).

IR = Daily water ingestion rate equal to an average adult equal to 2 liters per day (L/day).

EF = Exposure frequency (350 days/year).

ED = Exposure duration (30 years).

The calculation for a carcinogen guidance level is as follows:

$$HNTAC\ (mg/L) = \frac{0.000001 \bullet 70\ kg \bullet 70\ years \bullet 365\ days/year}{143\ (mg/kg\text{-}day)^{-1} \bullet 2\ L/day \bullet 350\ days/year \bullet 30\ years}$$

$$HNTAC\ (mg/L) = \frac{1.7885}{3{,}003{,}000}$$

$$HNTAC = 0.0000006\ mg/L$$

or:

0.6 ng/L or ppt

In deriving a guidance level to protect against a health effect for which there is a threshold dose below which no damage occurs (i.e., non-carcinogen effects), Section 620.605 specifies that U.S. EPA's MCLG, if available, is the guidance level. U.S. EPA has not published a MCLG for PFOA; therefore, Illinois EPA must calculate the HTTAC as the guidance level, using the procedures specified in Appendix A of Section 620.

Appendix A specifies in subsection (a) that the HTTAC is calculated as follows:

$$HTTAC = \frac{RSC \bullet ADE}{W}$$

Where:

HTTAC = Human threshold toxicant advisory concentration in milligrams per liter (mg/L).

RSC = Relative source contribution, the relative contribution of the amount of exposure to a chemical via ingestion of drinking water when compared to total exposure to that chemical from all sources. Valid chemical-specific data shall be used if available. If valid chemical-specific data are not available, a value of 20% (= 0.20) must be used.

ADE = Acceptable daily exposure of a chemical in milligrams per day (mg/d) as determined in accordance with Appendix A, subsection (b).

W = Per capita daily water consumption equal to 2 liters per day (L/d).

Subsection (b) of Appendix A specifies that the ADE be calculated using, in specified order: a U.S. EPA verified RfD (an estimate of a daily exposure to a chemical which is expected to be without adverse health effects for humans for a lifetime of exposure in units of mg/kg-day); a

NOAEL which has been identified as a result of human exposures; a LOAEL which has been identified as a result of human exposures; a NOAEL which has been determined from studies with laboratory animals; and a LOAEL which has been determined from studies with laboratory animals.

Illinois EPA selected the ATSDR dose MRL of 0.000003 (3E-06) mg/kg-day, as the verified RfD for use in calculating the ADE. The ADE equals the product of multiplying the toxicity value by 70 kilograms (kg), which is the assumed average body weight of an adult human per Section 620:

$$ADE = 0.000003\,mg/kg\text{-}day \bullet 70\,kg = 0.00021\,mg/day$$

The next step in the development of the HTTAC is the evaluation of chemical-specific RSC data available for the chemical. Illinois EPA evaluated data from ATSDR, U.S. EPA Office of Water, and values developed by other states. There is little scientific consensus regarding the contribution of drinking water to the total amount of PFAS exposure to humans. Humans are exposed to PFOA through a variety of media, including, but not limited to air emissions, ingestion of fish or other animals exposed to PFOA, dermal exposure and incidental exposure from PFOA-containing consumer products, much of which varies on a site-specific basis. Due to this lack of consensus, Illinois EPA elected to use the conservative default value of 20% (0.20) for its HTTAC calculation.

Finally, the HTTAC is calculated by the product of the RSC and the ADE, divided by the per capita daily water consumption rate, specified in Appendix A as equal to 2 L/day:

$$HTTAC\ (mg/L) = \frac{0.20 \bullet 0.00021\,mg/day}{2\,L/day}$$

$$HTTAC\ (mg/L) = \frac{0.000042\,mg/day}{2\,L/day}$$

$$HTTAC = 0.000021\ mg/L$$

or:

21 ng/L or ppt

The calculated HNTAC is less than the calculated HTTAC. Therefore, the guidance level is equal to the carcinogen HNTAC of 0.0000006 mg/L or 0.6 ng/L.

The final step in ensuring a calculated guidance level is appropriate is to compare the guidance level to the chemical's practical quantitation limit (PQL), or minimum reporting level (MRL). U.S. EPA's Method 537.1 for analyses of PFAS drinking water samples states the PFOA MRL is 2 ng/L, which is above the calculated guidance level of 0.6 ng/L. Therefore, the MRL of 2 ng/L is the appropriate Health Advisory level.

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

HEALTH ADVISORY FOR PERFLUOROBUTANESULFONIC ACID (PFBS) CHEMICAL ABSTRACT SERVICES REGISTRY NUMBER (CASRN) 375-73-5

Prepared by:
Office of Toxicity Assessment
Illinois Environmental Protection Agency
January 28, 2021

REASON FOR ACTION

As a result of a Per- and Polyfluoroalkyl Substances (PFAS) sampling initiative of community water supplies (CWS) undertaken by the Illinois Environmental Protection Agency (Illinois EPA), Perfluorobutanesulfonic Acid (PFBS) has been confirmed in a well at a CWS. In accordance with 35 Illinois Administrative Code 620.605(a), the Illinois EPA is issuing a health advisory for Perfluorobutanesulfonic Acid. Section 620.605(a) directs the Illinois EPA to issue a health advisory for a chemical substance if all of the following conditions are met:

1) A community water supply well is sampled, and a substance is detected and confirmed by resampling;

2) There is no standard under Section 620.410 for such chemical substance; and

3) The chemical substance is toxic or harmful to human health according to the procedures of Appendix A, B, or C.

The health advisory guidance level for PFBS is 0.14 milligrams per liter (mg/L), or 140,000 nanograms per liter (ng/L) or parts per trillion (ppt).

The health advisory will be published in the Environmental Register (publication of the Illinois Pollution Control Board) and placed at the website: https://pcb.illinois.gov/Resources/News

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
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412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

The health advisory will also be placed on Illinois EPA's website at:
https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

PURPOSE OF A HEALTH ADVISORY

In accordance with 35 Ill. Adm. Code 620.601, the purpose of a health advisory is to provide guidance levels that, in the absence of an applicable groundwater quality standard under Section 620.410, must be considered by Illinois EPA in: 1) establishing groundwater cleanup or action levels whenever there is a release or substantial threat of a release of a hazardous substance, pesticide, or another contaminant that represents a significant hazard to public health or the environment; 2) determining whether a community water supply is taking its raw water from a site or source consistent with regulatory requirements; and 3) developing Illinois Pollution Control Board (Board) rulemaking proposals for new or revised numerical standards.

Health advisories serve as informal technical guidance, intended to provide information about contaminant exposures and potential public health impacts. The guidance levels represent concentrations in drinking water at which no adverse health effects are expected to occur. Guidance levels are not enforceable or intended to be used as drinking water standards, also known as maximum contaminant levels (MCLs).

HEALTH ADVISORY GUIDANCE LEVEL FOR PFBS

Through issuance of this Health Advisory, Illinois EPA is providing public notice of its guidance level for PFBS in drinking water. For non-carcinogenic health effects, the guidance level is 0.14 milligrams per liter (mg/L), or 140,000 nanograms per liter (ng/L) or parts per trillion (ppt).

Section 620.605 prescribes the methods for developing health advisories for carcinogens and non-carcinogens. PFBS does not meet the definition of a "carcinogen", as defined in Section 620.110; therefore, the method for developing a health advisory for non-carcinogens was used. Briefly, this method specifies that the United States Environmental Protection Agency (U.S. EPA) MCL or maximum contaminant level goal (MCLG) is the guidance level, if available; or the human threshold toxicant advisory concentration (HTTAC) must be determined using the procedures contained in Appendix A of Section 620. U.S. EPA has not published an MCL or MCLG for PFBS; therefore, Illinois EPA used the Appendix A procedures to calculate a HTTAC for PFBS.

Appendix A specifies, in prescribed order, the toxicological data to be used in developing guidance levels. To determine appropriate toxicological data in accordance with nationally accepted guidelines, pursuant to the Illinois Groundwater Protection Act (415 ILCS 55-8(a)), Illinois EPA relied upon U.S. EPA guidance titled, *"Tier 3 Toxicity Value White Paper"* (paper), dated May 16, 2013, prepared by the U.S. EPA Office of Solid Waste and Emergency Response (OSWER) Human Health Regional Risk Assessors Forum. The paper lists a hierarchy of sources to be used when determining an appropriate toxicological value for use in human health assessments. The hierarchy for selection of toxicity values is as follows:

Tier 1: U.S. EPA Integrated Risk Information System (IRIS).

Tier 2: U.S. EPA Provisional Peer-Reviewed Toxicity Values (PPRTVs).

Tier 3: In the order in which they are presented:

1) United States Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) Dose Minimal Risk Levels (dose MRLs).

2) California EPA, Office of Environmental Health Hazard Assessment (OEHHA).

3) PPRTV "Appendix" Values.

4) Health Effects Assessment Summary Table (HEAST).

U.S. EPA PPRTV is the only source with peer reviewed toxicological data within the specified hierarchy listed in the Tier 3 paper. U.S. EPA issued a PPRTV in the form of an oral reference dose (RfD) for PFBS in 2014. U.S. EPA PPRTV is listed as a Tier 2 toxicity value source. The PPRTV toxicological profile recommends a chronic RfD equal to 0.02 (2E-02) milligrams per kilogram per day (mg/kg-day). The RfD is based on a study by Lieder, et al., titled, "*Toxicological evaluation of potassium perfluorobutanesulfonate in a 90-day oral gavage study with Sprague-Dawley rats*", published in 2009 and referenced as 2009a. The PPRTV profile lists the critical effect as hyperplasia (increased cell growth) of the kidney. A benchmark dose model was used for determining a human equivalency dose (HED) as the point of departure (POD), and the model calculated the HED POD to be 18.9 mg/kg-day.

A total uncertainty factor (UF) of 1,000 (UF of 10 to account for intrahuman variability, UF of 3 to account for toxicodynamic differences between animals and humans, UF of 3 to account for database uncertainties, UF of 1 to account for extrapolating from a lowest observed adverse effects level (LOAEL) to a no observed adverse effect level (NOAEL) when using a benchmark dose to calculate a HED POD and UF of 10 to extrapolate from a subchronic duration to chronic duration exposure, as a benchmark dose model was used in lieu of a time-weighted average (TWA) serum concentration) was applied to the HED POD.

$$RfD = \frac{HED\ POD}{UF}$$

$$RfD = \frac{18.9\ mg/kg\text{-}day}{1{,}000}$$

$$RfD = 0.019\ mg/kg\text{-}day$$

Rounded to one significant digit:

$$RfD = 0.02\ mg/kg\text{-}day$$

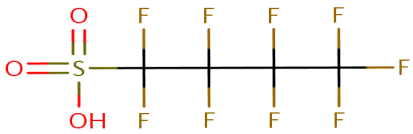
Using the chronic PPRTV RfD of 0.02 (2E-02) mg/kg-day, and the procedures outlined in Section 620.Appendix A, the recommended guidance level for drinking water is 0.14 mg/L, or 140,000 ng/L or ppt.

CHEMICAL CHARACTERISTICS AND POTENTIAL ADVERSE HEALTH EFFECTS

General Description of PFBS

Perfluorobutanesulfonic Acid (CASRN 375-73-5), also known as nonafluorobutane-1-suflonic acid, or PFBS, is a synthetic chemical which is part of a larger class of chemicals referred to as per- and polyfluoroalkyl substances. PFAS have been manufactured since the middle 20th Century and are known for their chemical and physical properties that impart oil and water repellency, temperature resistance, and friction reduction to a wide range of products, including, but not limited to, textile coatings, paper products, food wrappers, cosmetic and personal care products, non-stick cookware and fire-fighting foams. PFAS are also used in the semiconductor, aerospace, oil production, mining, and metal plating industries, to name a few. PFAS enter the environment through industrial manufacturing and the use and disposal of PFAS-containing products. The chemical and physical properties of PFBS make it mobile, persistent, and bioaccumulative, meaning fish and other animals may accumulate PFBS in animal tissue when their food sources are contaminated with PFBS. PFBS is known to be persistent in the environment.

Structural Identifier



Chemical Identifier

$C_4F_9SO_3H$

Potential Adverse Health Effects of PFBS

Studies for human health effects for PFBS are lacking. Information regarding health effects of PFBS are derived from animal studies, primarily via the ingestion, or oral exposure, route. Laboratory studies observed the following effects in animals exposed to PFBS:

- Neurodevelopmental effects
- Decreased weight of offspring
- Changes in thyroid hormone levels
- Cellular effects in kidneys

Carcinogenic Potential

Section 620.110 defines a carcinogen as a contaminant that is classified as: 1) a Category A1 or A2 Carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH); 2) a Category 1 or 2A/2B Carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC); 3) a "Human Carcinogen" or "Anticipated Human Carcinogen" by the United States Department of Health and Human Service National Toxicological Program (NTP); or 4) a Category A or B1/B2 Carcinogen by the U.S. EPA in IRIS or a Final Rule issued in a Federal Register notice by the USEPA. PFBS is not classified as a carcinogen by any of the above sources.

ATTACHMENT TO HEALTH ADVISORY
FOR
PERFLUOROBUTANESULFONIC ACID (PFBS)
CASRN 375-73-5

OVERVIEW OF KEY STUDIES

For information regarding the studies used for the derivation of the PPRTV RfD for PFBS, refer to the document titled, "*Provisional Peer-Reviewed Toxicity Values for Perfluorobutane Sulfonate (CASRN 375-73-5) and Related Compound Potassium Perfluorobutane Sulfonate (CASRN 29420-49-3)*", available at:
https://cfpub.epa.gov/ncea/pprtv/documents/PerfluorobutaneSulfonate.pdf

DERIVATION OF THE HEALTH ADVISORY FOR PFBS

The first step in the derivation of a health advisory is to determine whether the chemical substance presents a carcinogenic risk to humans. PFBS does not meet the definition of a carcinogen pursuant to Section 620.110. Therefore, the guidance level will be based on non-carcinogenic effects of this chemical.

In deriving a guidance level to protect against a health effect for which there is a threshold dose below which no damage occurs (i.e., non-carcinogen effects), Section 620.605 specifies that U.S. EPA's MCLG, if available, is the guidance level. U.S. EPA has not published a MCLG for PFBS; therefore, Illinois EPA must calculate the HTTAC as the guidance level, using the procedures specified in Appendix A of Section 620.

Appendix A specifies in subsection (a) that the HTTAC is calculated as follows:

$$HTTAC = \frac{RSC \bullet ADE}{W}$$

Where:

HTTAC = Human threshold toxicant advisory concentration in milligrams per liter (mg/L).

RSC = Relative source contribution, the relative contribution of the amount of exposure to a chemical via ingestion of drinking water when compared to total exposure to that chemical from all sources. Valid chemical-specific data shall be used if available. If valid chemical-specific data are not available, a value of 20% (= 0.20) must be used.

ADE = Acceptable daily exposure of a chemical in milligrams per day (mg/d) as determined in accordance with Appendix A, subsection (b).

W = Per capita daily water consumption equal to 2 liters per day (L/d).

Subsection (b) of Appendix A specifies that the ADE be calculated using, in specified order: a U.S. EPA verified RfD (an estimate of a daily exposure to a chemical which is expected to be without adverse health effects for humans for a lifetime of exposure in units of mg/kg-day); a NOAEL which has been identified as a result of human exposures; a LOAEL which has been identified as a result of human exposures; a NOAEL which has been determined from studies with laboratory animals; and a LOAEL which has been determined from studies with laboratory animals.

Illinois EPA selected the recommended PPRTV RfD of 0.02 (2E-02) mg/kg-day, as the verified RfD for use in calculating the ADE. The ADE equals the product of multiplying the toxicity value by 70 kilograms (kg), which is the assumed average body weight of an adult human per Section 620:

$$ADE = 0.02\,mg/kg\text{-}day \bullet 70\,kg = 0.14\,mg/day$$

The next step in the development of the HTTAC is the evaluation of chemical-specific RSC data available for the chemical. Illinois EPA evaluated data from ATSDR, U.S. EPA Office of Water, and values developed by other states. There is little scientific consensus regarding the contribution of drinking water to the total amount of PFAS exposure to humans. Humans are exposed to PFBS through a variety of media, including, but not limited to air emissions, ingestion of fish or other animals exposed to PFBS, dermal exposure and incidental exposure from PFBS-containing consumer products, much of which varies on a site-specific basis. Due to this lack of consensus, Illinois EPA elected to use the conservative default value of 20% (0.20) for its HTTAC calculation.

Finally, the HTTAC is calculated by the product of the RSC and the ADE, divided by the per capita daily water ingestion rate, specified in Appendix A as equal to 2 L/day:

$$HTTAC\ (mg/L) = \frac{0.20 \bullet 1.4\,mg/day}{2\,L/day}$$

$$HTTAC\ (mg/L) = \frac{0.28\,mg/day}{2\,L/day}$$

$$HTTAC = 0.14\ mg/L$$

or:

140,000 ng/L or ppt

The final step in ensuring a calculated guidance level is appropriate is to compare the guidance level to the chemical's practical quantitation limit (PQL), or minimum reporting level (MRL). U.S. EPA's Method 537.1 for analyses of PFAS drinking water samples states the PFBS MRL is

2 ng/L, which is below the calculated health-based guidance level of 21 ng/L. Therefore, the health-based guidance level is appropriate.

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

HEALTH ADVISORY FOR PERFLUOROHEXANESULFONIC ACID (PFHxS) CHEMICAL ABSTRACT SERVICES REGISTRY NUMBER (CASRN) 355-46-4

Prepared by:
Office of Toxicity Assessment
Illinois Environmental Protection Agency
January 28, 2021

REASON FOR ACTION

As a result of a Per- and Polyfluoroalkyl Substances (PFAS) sampling initiative of community water supplies (CWS) undertaken by the Illinois Environmental Protection Agency (Illinois EPA), Perfluorohexanesulfonic Acid (PFHxS) has been confirmed in a well at a CWS. In accordance with 35 Illinois Administrative Code 620.605(a), the Illinois EPA is issuing a health advisory for Perfluorohexanesulfonic Acid. Section 620.605(a) directs the Illinois EPA to issue a health advisory for a chemical substance if all of the following conditions are met:

1) A community water supply well is sampled, and a substance is detected and confirmed by resampling;

2) There is no standard under Section 620.410 for such chemical substance; and

3) The chemical substance is toxic or harmful to human health according to the procedures of Appendix A, B, or C.

The health advisory guidance level for PFHxS is 0.00014 milligrams per liter (mg/L), or 140 nanograms per liter (ng/L) or parts per trillion (ppt).

The health advisory will be published in the Environmental Register (publication of the Illinois Pollution Control Board) and placed at the website: https://pcb.illinois.gov/Resources/News

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

The health advisory will also be placed on Illinois EPA's website at:
https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

PURPOSE OF A HEALTH ADVISORY

In accordance with 35 Ill. Adm. Code 620.601, the purpose of a health advisory is to provide guidance levels that, in the absence of an applicable groundwater quality standard under Section 620.410, must be considered by Illinois EPA in: 1) establishing groundwater cleanup or action levels whenever there is a release or substantial threat of a release of a hazardous substance, pesticide, or another contaminant that represents a significant hazard to public health or the environment; 2) determining whether a community water supply is taking its raw water from a site or source consistent with regulatory requirements; and 3) developing Illinois Pollution Control Board (Board) rulemaking proposals for new or revised numerical standards.

Health advisories serve as informal technical guidance, intended to provide information about contaminant exposures and potential public health impacts. The guidance level represents concentrations in drinking water at which no adverse health effects are expected to occur. Guidance levels are not enforceable or intended to be used as drinking water standards, also known as maximum contaminant levels (MCLs).

HEALTH ADVISORY GUIDANCE LEVEL FOR PFHxS

Through issuance of this Health Advisory, Illinois EPA is providing public notice of its guidance level for PFHxS in drinking water. For non-carcinogenic health effects, the guidance level is 0.000140 milligrams per liter (mg/L), or 140 nanograms per liter (ng/L) or parts per trillion (ppt).

Section 620.605 prescribes the methods for developing health advisories for carcinogens and non-carcinogens. PFHxS does not meet the definition of a carcinogen, as defined at Section 620.110; therefore, the method for developing a health advisory for non-carcinogens was used. Briefly, this method specifies that the United States Environmental Protection Agency (U.S. EPA) MCL or maximum contaminant level goal (MCLG) is the guidance level, if available, or the human threshold toxicant advisory concentration (HTTAC) must be determined using the procedures contained in Appendix A of Section 620. U.S. EPA has not published an MCL or MCLG for PFHxS; therefore, Illinois EPA used the Appendix A procedures to calculate a HTTAC for PFHxS.

Appendix A specifies, in prescribed order, the toxicological data to be used in developing guidance levels. To determine appropriate toxicological data in accordance with nationally accepted guidelines, pursuant to the Illinois Groundwater Protection Act (415 ILCS 55-8(a)), Illinois EPA relied upon U.S. EPA guidance titled, *"Tier 3 Toxicity Value White Paper"* (paper), dated May 16, 2013, prepared by the U.S. EPA Office of Solid Waste and Emergency Response OSWER) Human Health Regional Risk Assessors Forum. The paper lists a hierarchy of sources

to be used when determining an appropriate toxicological value for use in human health assessments. The hierarchy for selection of toxicity values is as follows:

Tier 1: U.S. EPA Integrated Risk Information System (IRIS).

Tier 2: U.S. EPA Provisional Peer-Reviewed Toxicity Values (PPRTVs).

Tier 3: In the order in which they are presented:

1) United States Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) Dose Minimal Risk Levels (dose MRLs).

2) California EPA, Office of Environmental Health Hazard Assessment (OEHHA).

3) PPRTV "Appendix" Values.

4) Health Effects Assessment Summary Table (HEAST).

ATSDR published a peer reviewed toxicological (tox) profile titled, "*Toxicological Profile for Perfluoroalkyls"* (tox profile), for four PFAS, including PFHxS, in the Federal Register on July 19, 2018 for a 60-day public comment period. The comment period closed on September 17, 2018. The toxicity values in the tox profile are considered "draft" until they have been finalized following the public comment period. Following the close of the comment period, ATSDR submitted their toxicological profile to the Office of Management and Budget in December 2019. In November 2018, ATSDR published drinking water MRLs, calculated using the dose MRLs recommended in the tox profile.

ATSDR's tox profile recommends an intermediate dose MRL equal to 0.00002 (2E-05) milligrams per kilogram per day (mg/kg-day). The value is based on studies by Butenhoff, et al., titled, "*Evaluation of potential reproductive and developmental toxicity of potassium perfluorohexanesulfonate in Sprague Dawley rats*", published in 2009 and referenced as 2009a, and Hoberman and York, titled, "*Oral (gavage) combined repeated dose toxicity study of T-7706 with the reproduction/developmental toxicity screening test*", published in 2003. ATSDR lists the critical effect as thyroid follicular damage. A pharmacokinetic (PK) model for predicting a time-weighted average (TWA) serum concentration was not identified for PFHxS; therefore, an estimated TWA serum concentration derived from measured serum concentrations was used to calculate a human equivalency dose (HED) of 0.0047 mg/kg-day, based on a no observed adverse effect level (NOAEL) of 1 mg/kg-day in rats.

A total uncertainty factor (UF) of 30 (UF of 10 to account for intrahuman variability and UF of 3 to account for toxicodynamic differences between animals and humans) was applied to the HED. In addition to the total UF of 30, ATSDR applied a modifying factor (MF) of 10 for database limitations to account for the small number of studies examining the toxicity of PFHxS following intermediate-duration exposure, the limited scope of the studies, particularly the lack of

immunotoxicity studies, which is a critical effect for other PFAS, and the lack of general toxicity studies. ATSDR applied a total UF/MF factor of 300 in the calculation of its dose MRL.

$$dose\ MRL = \frac{HED}{UF/MF}$$

$$dose\ MRL = \frac{0.0047\ mg/kg\text{-}day}{300}$$

$$dose\ MRL = 0.000016\ mg/kg\text{-}day$$

Rounded to one significant digit:

$$dose\ MRL = 0.00002\ mg/kg\text{-}day$$

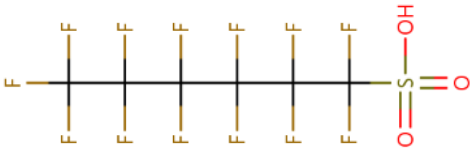
A UF of 1 may be used to extrapolate a chronic value from an intermediate (subchronic) value when developing a HED using a TWA serum concentration. Using the ATSDR dose MRL of 0.00002 (2E-05) mg/kg-day, and the procedures outlined in Section 620.Appendix A, the recommended guidance level for drinking water is 0.00014 mg/L or 140 ng/L or ppt.

CHEMICAL CHARACTERISTICS AND POTENTIAL ADVERSE HEALTH EFFECTS

General Description of PFHxS

Perfluorohexanesulfonic Acid (CASRN 355-46-4), also known as tridecafluorohexane-1-sulfonic acid, or PFHxS, is a synthetic chemical which is part of a larger class of chemicals referred to as per- and polyfluoroalkyl substances. PFAS have been manufactured since the middle 20th Century and are known for their chemical and physical properties that impart oil and water repellency, temperature resistance, and friction reduction to a wide range of products, including, but not limited to, textile coatings, paper products, food wrappers, cosmetic and personal care products, non-stick cookware and fire-fighting foams. PFAS are also used in the semiconductor, aerospace, oil production, mining, and metal plating industries, to name a few. PFAS enter the environment through industrial manufacturing and the use and disposal of PFAS-containing products. The chemical and physical properties of PFHxS make it mobile, persistent, and bioaccumulative, meaning fish and other animals may accumulate PFHxS in animal tissue when their food sources are contaminated with PFHxS. PFHxS is known to be persistent in the environment.

Structural Identifier



Chemical Identifier

$C_6F_{13}SO_3H$

Potential Adverse Health Effects of PFHxS

Limited epidemiology studies on humans suggest associations between PFHxS exposure the following possible health outcomes:

- Liver damage
- Decreased antibody response to vaccines

Most information regarding health effects of PFHxS is derived from animal studies, primarily via the ingestion, or oral exposure, route. Laboratory studies observed the following effects in animals exposed to PFHxS:

- Liver damage
- Neurodevelopmental effects
- Decreased weight of offspring
- Increased triglyceride levels
- Decreased levels of hemoglobin, hematocrit and red blood cells.
- Thyroid damage

Carcinogenic Potential

Section 620.110, defines a carcinogen as a contaminant that is classified as: 1) a Category A1 or A2 Carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH); 2) a Category 1 or 2A/2B Carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC); 3) a "Human Carcinogen" or "Anticipated Human Carcinogen" by the U.S. Department of Health and Human Service National Toxicological Program (NTP); or 4) a Category A or B1/B2 Carcinogen by the U.S. EPA in IRIS or a Final Rule issued in a Federal Register notice by the U.S. EPA. PFHxS is not classified as a carcinogen by any of the above sources.

ATTACHMENT TO HEALTH ADVISORY
FOR
PERFLUOROHEXANESULFONIC ACID (PFHxS)
CASRN 355-46-4

OVERVIEW OF KEY STUDIES

For information regarding the studies used by ATSDR for derivation of its PFHxS dose MRL, refer to the draft Toxicological Profile for Perfluoroalkyls, located at: https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237

DERIVATION OF THE HEALTH ADVISORY FOR PFHxS

The first step in the derivation of a health advisory is to determine whether the chemical substance presents a carcinogenic risk to humans. PFHxS does not meet the definition of a carcinogen as specified in Section 620.110. Therefore, the guidance level is based on non-carcinogenic effects of this chemical.

In deriving a guidance level to protect against a health effect for which there is a threshold dose below which no damage occurs (i.e., non-carcinogen effects), Section 620.605 specifies that U.S. EPA's MCLG, if available, is the guidance level. U.S. EPA has not published a MCLG for PFHxS; therefore, Illinois EPA must calculate the HTTAC as the guidance level, using the procedures specified in Appendix A of Section 620.

Appendix A specifies in subsection (a) that the HTTAC is calculated as follows:

$$HTTAC = \frac{RSC \bullet ADE}{W}$$

Where:

HTTAC = Human threshold toxicant advisory concentration in milligrams per liter (mg/L).

RSC = Relative source contribution, the relative contribution of the amount of exposure to a chemical via ingestion of drinking water when compared to total exposure to that chemical from all sources. Valid chemical-specific data shall be used if available. If valid chemical-specific data are not available, a value of 20% (= 0.20) must be used.

ADE = Acceptable daily exposure of a chemical in milligrams per day (mg/d) as determined in accordance with Appendix A, subsection (b).

W = Per capita daily water consumption equal to 2 liters per day (L/d).

Subsection (b) of Appendix A specifies that the ADE be calculated using, in specified order: a U.S. EPA verified RfD (an estimate of a daily exposure to a chemical which is expected to be without adverse health effects for humans for a lifetime of exposure in units of mg/kg-day); a NOAEL which has been identified as a result of human exposures; a LOAEL (lowest observed adverse effect level) which has been identified as a result of human exposures; a NOAEL which has been determined from studies with laboratory animals; and a LOAEL which has been determined from studies with laboratory animals.

Illinois EPA selected the ATSDR recommended dose MRL of 0.00002 (2E-05) mg/kg-day, as the verified RfD for use in calculating the ADE. The ADE equals the product of multiplying the toxicity value by 70 kilograms (kg), which is the assumed average body weight of an adult human per Section 620:

$$ADE = 0.00002\,mg/kg\text{-}day \bullet 70\,kg = 0.0014\,mg/day$$

The next step in the development of the HTTAC is the evaluation of chemical-specific RSC data available for the chemical. Illinois EPA evaluated data from ATSDR, U.S. EPA Office of Water, and values developed by other states. There is little scientific consensus regarding the contribution of drinking water to the total amount of PFAS exposure to humans. Humans are exposed to PFHxS through a variety of media, including, but not limited to air emissions, ingestion of fish or other animals exposed to PFHxS, dermal exposure and incidental exposure from PFHxS-containing consumer products, much of which varies on a site-specific basis. Due to this lack of consensus, Illinois EPA elected to use the conservative default value of 20% (0.20) for its HTTAC calculation.

Finally, the HTTAC is calculated by the product of the RSC and the ADE, divided by the per capita daily water ingestion rate, specified in Appendix A as equal to 2 L/day:

$$HTTAC\ (mg/L) = \frac{0.20 \bullet 0.0014\,mg/day}{2\,L/day}$$

$$HTTAC\ (mg/L) = \frac{0.00028\,mg/day}{2\,L/day}$$

$$HTTAC = 0.00014\ mg/L$$

or:

140 ng/L or ppt

The final step in ensuring a calculated guidance level is appropriate is to compare the guidance level to the chemical's practical quantitation limit (PQL), or minimum reporting level (MRL). U.S. EPA's Method 537.1 for analyses of PFAS drinking water samples states the PFHxS MRL is 2 ng/L, which is below the calculated guidance level of 140 ng/L. Therefore, the guidance level is appropriate.

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

HEALTH ADVISORY FOR PERFLUOROHEXANOIC ACID (PFHxA) CHEMICAL ABSTRACT SERVICES REGISTRY NUMBER (CASRN) 307-24-4

Prepared by:
Office of Toxicity Assessment
Illinois Environmental Protection Agency
January 28, 2021

REASON FOR ACTION

As a result of a Per- and Polyfluoroalkyl Substances (PFAS) sampling initiative of community water supplies (CWS) undertaken by the Illinois Environmental Protection Agency (Illinois EPA), Perfluorohexanoic Acid (PFHxA) has been confirmed in a well at a CWS. In accordance with 35 Illinois Administrative Code 620.605(a), the Illinois EPA is issuing a health advisory for Perfluorohexanoic Acid. Section 620.605(a) directs the Illinois EPA to issue a health advisory for a chemical substance if all of the following conditions are met:

1) A community water supply well is sampled, and a substance is detected and confirmed by resampling;

2) There is no standard under Section 620.410 for such chemical substance; and

3) The chemical substance is toxic or harmful to human health according to the procedures of Appendix A, B, or C.

The health advisory guidance level for PFHxA is 0.56 milligrams per liter (mg/L), or 560,000 nanograms per liter (ng/L) or parts per trillion (ppt).

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

The health advisory will be published in the Environmental Register (publication of the Illinois Pollution Control Board) and placed at the website: https://pcb.illinois.gov/Resources/News

The health advisory will also be placed on Illinois EPA's website at: https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

PURPOSE OF A HEALTH ADVISORY

In accordance with 35 Ill. Adm. Code 620.601, the purpose a health advisory is to provide guidance levels that, in the absence of an applicable groundwater quality standard under Section 620.410, and must be considered by Illinois EPA in: 1) establishing groundwater cleanup or action levels whenever there is a release or substantial threat of a release of a hazardous substance, pesticide, or another contaminant that represents a significant hazard to public health or the environment; 2) determining whether a community water supply is taking its raw water from a site or source consistent with regulatory requirements; and 3) developing Illinois Pollution Control Board (Board) rulemaking proposals for new or revised numerical standards.

Health advisories serve as informal technical guidance, intended to provide information about contaminant exposures and potential public health impacts. The guidance levels represent concentrations in drinking water at which no adverse health effects are expected to occur. Guidance levels are not enforceable or intended to be used as drinking water standards, also known as maximum contaminant levels (MCLs).

HEALTH ADVISORY GUIDANCE LEVEL FOR PFHxA

Through issuance of this Health Advisory, Illinois EPA is providing public notice of its guidance level for PFHxA in drinking water. For non-carcinogenic health effects, the guidance level is 0.56 milligrams per liter (mg/L), or 560,000 nanograms per liter (ng/L) or parts per trillion (ppt).

Section 620.605 prescribes the methods for developing health advisories for carcinogens and non-carcinogens. PFHxA does not meet the definition of a "carcinogen", as defined in Section 620.110; therefore, the method for developing a health advisory for non-carcinogens was used. Briefly, this method specifies that the United States Environmental Protection Agency (U.S. EPA) MCL or maximum contaminant level goal (MCLG) is the guidance level, if available, or the human threshold toxicant advisory concentration (HTTAC) must be determined using the procedures contained in Appendix A of Section 620. U.S. EPA has not published an MCL or MCLG for PFHxA; therefore, Illinois EPA used the Appendix A procedures to calculate a HTTAC for PFHxA.

Appendix A specifies, in prescribed order, the toxicological data to be used in developing guidance levels. To determine appropriate toxicological data in accordance with nationally accepted guidelines, pursuant to the Illinois Groundwater Protection Act (415 ILCS 55-8(a)), Illinois EPA relied upon U.S. EPA guidance titled, *"Tier 3 Toxicity Value White Paper"* (paper),

dated May 16, 2013, prepared by the U.S. EPA Office of Solid Waste and Emergency Response (OSWER) Human Health Regional Risk Assessors Forum. The paper lists a hierarchy of sources to be used when determining an appropriate toxicological value for use in human health assessments. The hierarchy for selection of toxicity values is as follows:

Tier 1: U.S. EPA Integrated Risk Information System (IRIS).

Tier 2: U.S. EPA Provisional Peer-Reviewed Toxicity Values (PPRTVs).

Tier 3: In the order in which they are presented:

1) The U.S. Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) Dose Minimal Risk Levels (dose MRLs).

2) California EPA, Office of Environmental Health Hazard Assessment (OEHHA).

3) PPRTV "Appendix" Values.

4) Health Effects Assessment Summary Table (HEAST).

The paper also references peer-reviewed toxicity values developed by other states to calculate provisional drinking water health advisory levels as a Tier 3 source, however, the source is not ranked.

No toxicity values are available from the named sources within the tier. In 2019, the State of Michigan Science Advisory Workgroup issued a document, titled, "*Health-Based Drinking Water Value Recommendations for PFAS in Michigan*". The document recommended a chronic oral reference dose (RfD) equal to 0.083 milligrams per kilogram per day (mg/kg-day). The RfD is based on a study by Klaunig, et al., titled, "*Evaluation of chronic toxicity and carcinogenicity of perfluorohexanoic acid (PFHxA) in Sprague-Dawley rats*", published in 2015. The study lists critical effects as renal tubular degeneration and renal papillary necrosis of the kidney. In 2019, Luz, et al., published a paper titled, "*Perfluorohexanoic acid toxicity, part I: Development of a chronic human health toxicity value for use in risk assessment*", which evaluated several studies for the development of a PFHxA toxicity value. Luz, et al., utilized a benchmark dose model for calculating a human equivalency dose (HED) of 24.8 mg/kg-day as the point of departure (HED POD). In 2020, Michigan adopted an enforceable drinking water standard in the form of an MCL for PFHxA, based on the above-referenced studies.

A total uncertainty factor (UF) of 300 (a UF of 10 to account for intrahuman variability, UF of 3 to account for toxicodynamic differences between animals and humans, UF of 10 to account for database uncertainties, including the lack of additional chronic toxicity studies, no additional data in a second species, and concern for decreased vaccine response, and UF of 1 to account for extrapolating from a lowest observed adverse effects level (LOAEL) to a no observed adverse effect level (NOAEL)) was applied to the HED POD.

$$RfD = \frac{HED\ POD}{UF}$$

$$RfD = \frac{24.8\ mg/kg\text{-}day}{300}$$

$$RfD = 0.083\ mg/kg\text{-}day$$

Rounded to one significant digit:

$$RfD = 0.08\ mg/kg\text{-}day$$

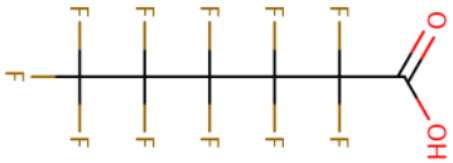
Using the RfD of 0.08 (8E-02) mg/kg-day, and the procedures outlined in Section 620.Appendix A, the recommended guidance level for drinking water is 0.56 milligrams per liter (mg/L), or 560,000 nanograms per liter (ng/L) or parts per trillion (ppt).

CHEMICAL CHARACTERISTICS AND POTENTIAL ADVERSE HEALTH EFFECTS

General Description of PFHxA

Perfluorohexanoic Acid (PFHxA) (CASRN 307-24-4), also known as undecafluorohexanoic acid or PFHxA, is a synthetic chemical which is part of a larger class of chemicals referred to as per- and polyfluoroalkyl substances. PFAS have been manufactured since the middle 20th Century and are known for their chemical and physical properties that impart oil and water repellency, temperature resistance, and friction reduction to a wide range of products, including, but not limited to, textile coatings, paper products, food wrappers, cosmetic and personal care products, non-stick cookware and fire-fighting foams. PFAS are also used in the semiconductor, aerospace, oil production, mining, and metal plating industries, to name a few. PFAS enter the environment through industrial manufacturing and the use and disposal of PFAS-containing products. The chemical and physical properties of PFHxA make it mobile, persistent and bioaccumulative, meaning fish and other animals may accumulate PFHxA in animal tissue when their food sources are contaminated with PFHxA. PFHxA is known to be persistent in the environment.

Structural Identifier



Chemical Identifier

$C_5F_{11}COOH$

Potential Adverse Health Effects of PFHxA

Studies for human health effects for PFHxA are lacking. Information regarding health effects of PFHxA are derived from animal studies, primarily via the ingestion, or oral exposure, route. Laboratory studies observed the following effects in animals exposed to PFHxA:

- Cellular effects in kidneys
- Decreased weight of offspring
- Increased triglycerides
- Reduced red blood cell count

Carcinogenic Potential

Section 620.110. defines a carcinogen as a contaminant that is classified as: 1) a Category A1 or A2 Carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH); 2) a Category 1 or 2A/2B Carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC); 3) a "Human Carcinogen" or "Anticipated Human Carcinogen" by the United States Department of Health and Human Service National Toxicological Program (NTP); or 4) a Category A or B1/B2 Carcinogen by the U.S. EPA in IRIS or a Final Rule issued in a Federal Register notice by the USEPA. PFHxA is not classified as a carcinogen by any of the above sources.

ATTACHMENT TO HEALTH ADVISORY
FOR
PERFLUOROHEXANOIC ACID (PFHxA)
CASRN 307-24-4

OVERVIEW OF KEY STUDIES

For information regarding the studies used for the derivation of Michigan's RfD for PFHxA, refer to the following documents:

"*Evaluation of chronic toxicity and carcinogenicity of perfluorohexanoioc acid (PFHxA) in Sprague-Dawley rats*", available at:
https://journals.sagepub.com/doi/full/10.1177/0192623314530532

"*Health-Based Drinking Water Value Recommendations for PFAS in Michigan*", available at:
https://www.michigan.gov/documents/pfasresponse/Health-Based_Drinking_Water_Value_Recommendations_for_PFAS_in_Michigan_Report_659258_7.pdf

"*Perfluorohexanoic acid toxicity, part I: Development of a chronic human health toxicity value for use in risk assessment*", available at:
https://www.sciencedirect.com/science/article/pii/S0273230019300194

DERIVATION OF THE HEALTH ADVISORY FOR PFHxA

The first step in the derivation of a health advisory is to determine whether the chemical substance presents a carcinogenic risk to humans. PFHxA does not meet the definition of a carcinogen as specified in Section 620.110. Therefore, the guidance level will be based on non-carcinogenic effects of this chemical.

In deriving a guidance level to protect against a health effect for which there is a threshold dose below which no damage occurs (i.e., non-carcinogen effects), Section 620.605 specifies that U.S. EPA's MCLG, if available, is the guidance level. U.S. EPA has not published a MCLG for PFHxA; therefore, Illinois EPA must calculate the HTTAC as the guidance level, using the procedures specified in Appendix A of Section 620.

Appendix A specifies in subsection (a) that the HTTAC is calculated as follows:

$$HTTAC = \frac{RSC \bullet ADE}{W}$$

Where:

HTTAC = Human threshold toxicant advisory concentration in milligrams per liter (mg/L).

RSC = Relative source contribution, the relative contribution of the amount of exposure to a chemical via ingestion of drinking water when compared to total exposure to that chemical from all sources. Valid chemical-specific data shall be used if available. If valid chemical-specific data are not available, a value of 20% (= 0.20) must be used.

ADE = Acceptable daily exposure of a chemical in milligrams per day (mg/d) as determined in accordance with Appendix A, subsection (b).

W = Per capita daily water consumption equal to 2 liters per day (L/d).

Subsection (b) of Appendix A specifies that the ADE be calculated using, in specified order: a U.S. EPA verified RfD (an estimate of a daily exposure to a chemical which is expected to be without adverse health effects for humans for a lifetime of exposure in units of mg/kg-day); a NOAEL which has been identified as a result of human exposures; a LOAEL which has been identified as a result of human exposures; a NOAEL which has been determined from studies with laboratory animals; and a LOAEL which has been determined from studies with laboratory animals.

Illinois EPA selected an RfD of 0.08 (8E-02) mg/kg-day, as the verified RfD for use in calculating the ADE. The ADE equals the product of multiplying the toxicity value by 70 kilograms (kg), which is the assumed average body weight of an adult human per Section 620:

$$ADE = 0.08\,mg/kg\text{-}day \bullet 70\,kg = 5.6\,mg/day$$

The next step in the development of the HTTAC is the evaluation of chemical-specific RSC data available for the chemical. Illinois EPA evaluated data from ATSDR, U.S. EPA Office of Water, and values developed by other states. There is little scientific consensus regarding the contribution of drinking water to the total amount of PFAS exposure to humans. Humans are exposed to PFHxA through a variety of media, including, but not limited to air emissions, ingestion of fish or other animals exposed to PFHxA, dermal exposure and incidental exposure from PFHxA-containing consumer products, much of which varies on a site-specific basis. Due to this lack of consensus, Illinois EPA elected to use the conservative default value of 20% (0.20) for its HTTAC calculation.

Finally, the HTTAC is calculated by the product of the RSC and the ADE, divided by the per capita daily water ingestion rate, specified in Appendix A as equal to 2 L/day:

$$HTTAC\ (mg/L) = \frac{0.20 \bullet 5.6\,mg/day}{2\,L/day}$$

$$HTTAC\ (mg/L) = \frac{1.12\ mg/day}{2\,L/day}$$

$$HTTAC\ = 0.56\ mg/L$$

or:

560,000 ng/L or ppt

The final step in ensuring a calculated guidance level is appropriate is to compare the guidance level to the chemical's practical quantitation limit (PQL), or minimum reporting level (MRL). U.S. EPA's Method 537.1 for analyses of PFAS drinking water samples states the PFHxA MRL is 2 ng/L, which is below the calculated guidance level of 560,000 ng/L. Therefore, the guidance level is appropriate.

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