BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO	)	R2022-018
GROUNDWATER QUALITY	)	
(35 Ill Adm. Code 620)	)	(Rulemaking – Public Water Supply)

NOTICE OF FILING

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board follow-up questions from the AMERICAN CHEMISTRY COUNCIL to the Illinois Environmental Protection Agency, copies of which are served upon you.

Dated March 18, 2022

Respectfully Submitted,

AMERICAN CHEMISTRY COUNCIL

By: /s/ Stephen P. Risotto
Stephen P. Risotto

AMERICAN CHEMISTRY COUNSEL
Stephen P. Risotto
700 2nd Street, NE
Washington, DC 20002
(202) 249-7000
srisotto@americanchemistry.com

CERTIFICATE OF SERVICE

I, the undersigned, certify that I have today filed the attached NOTICE OF FILING and the AMERICAN CHEMISTRY COUNCIL'S FOLLOW-UP QUESTIONS to the Illinois Environmental Protection Agency in PCB R2018-032 upon the below service list by electronic mail.

Dated: March 18, 2022

By: /s/ Stephen P. Risotto
Stephen P. Risotto

AMERICAN CHEMISTRY COUNCIL
Stephen P. Risotto
700 2nd Street, NE
Washington, DC 20002
(202) 249-7000
srisotto@americanchemistry,com

SERVICE LIST

Don Brown, Clerk of the Board
Don.Brown@illinois.gov
Vanessa Horton, Hearing Officer
Vanessa.Horton@Illinois.gov
Illinois Pollution Control Board
James R. Thompson Center
Suite 11-500
100 West Randolph
Chicago, Illinois 60601

Sara Terranova, Assistant Counsel
Sara.Terranova@illinois.gov
Nicholas E. Kondelis, Assistant Counsel
Nicholas.E.Kondelis@illinois.gov
Illinois Environmental Protection Agency
1021 North Grand Avenue East
PO Box 19276
Springfield, Illinois 62794

Jorge T. Mihalopoulos, Head Assistant Attorney
Jorge.Mihalopoulos@mwrd.org
Susan T. Morakalis, General Counsel
Morakaliss@mwrd.org
J. Mark Powell, Senior Attorney
PowellJ@mwrd.org
Metropolitan Water Reclamation District of Greater Chicago
100 E. Erie Street
Chicago, Illinois 60611

Renee Snow, General Counsel
Renee.Snow@illinois.gov
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62702

Melissa S. Brown
Melissa.Brown@heplerbroom.com
Illinois Environmental Regulatory Group
4340 Acer Grove Drive
Springfield, Illinois 62711

Ellen F. O'Laughlin, Assistant Attorney General
Ellen.Olaughlin@ilag.gov
Jason James, Assistant Attorney General
Jason.James@ilag.gov
Office of the Illinois Attorney General
69 West Washington Street
Suite 1800
Chicago, IL 60602

Claire A. Manning
Cmanning@bhslaw.com
Anthony D. Schuering
Aschuering@ghslaw.com
Brown, Hay & Stephens, LLP
205 South Fifty Street, Suite 1000
Springfield, IL 62705-2459

Joshua R. More
Joshua.More@schiffhardin.com
Bina Joshi
Bina.Joshi@schiffhardin.com
Sarah L. Lode
Sarah.Lode@schiffhardin.com
Schiff Hardin, LLP
233 South Wacker Drive
Suite 6600
Chicago, IL 60606

James M. Morphew
Jmmorphew@sorlinglaw.com
Sorling Northrup
1 North Old State Capitol Plaza
Suite 200
P.O. 5131
Springfield, IL 62705

Nessa Coppinger
ncoppinger@bdlaw.com
Daniel Schulson
dschulson@bdlaw.com
Matthew Schneider
mschneider@bdlaw.com
Beveridge & Diamond, PC
1900 N. St. NW
Washington, DC 20036

Frederic P. Andes
frederic.andes@btlaw.com
Barnes & Thornburg LLP
Suite 4400
One North Wacker Drive
Chicago, Illinois 60606

Sandra Carey
sandracarey@imoa.info
HSE Executive
International Molybdenum Association
454-458 Chiswick High Road
London W4 5TT
United Kingdom

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AMERICAN CHEMISTRY COUNCIL FOLLOW-UP QUESTIONS TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Section 620.125

1. IL EPA has indicated that USEPA SW-846 Method 8327 is available for use to analyze PFAS in non-potable drinking water.

    - Has IL EPA determined how many laboratories in the state are certified to conduct Method 8327?

Section 620.410

2. In response to American Chemistry Council's (ACC) pre-filed question 5 regarding IEPA's selection of reference dose (RfD) sources for the PFAS substances included in the Proposed Amendments, IEPA referred to its use of the U.S. Environmental Protection Agency's (USEPA) hierarchy of human health and toxicity values recommend for use in risk assessments. IEPA also stated "[f]urther, [Agency for Toxic Substances and Disease Registry] ATSDR's PFAS toxicity values rely on more recent toxicological studies with a broader scope of adverse effects than the studies relied upon for developing the toxicity values for USEPA's 2016 health advisory levels."

    - What analysis, if any, does IL EPA conduct to ensure the human health and toxicity values upon which it relies are scientifically sound?
    - Does IL EPA have the discretion to deviate from the source hierarchy? If so, what criteria does IL EPA employ when determining whether to deviate from the hierarchy?
    - What analysis or evaluation has IL EPA conducted to determine the ATSDR toxicity values rely on "more recent toxicological studies with a broader scope of adverse effects" as stated in the response to ACC pre-filed questions?

3. In response to ACC's pre-filed question 7 regarding IL EPA's use of the ATSDR Minimum Risk Level (MRL) as its toxicity source for PFOS given concerns about ATSDR's derivation of the lowest-observable adverse-effect level (LOAEL), IL EPA states that "[c]oncerns

regarding the basis for ATSDR's development of its toxicity values are more appropriately directed to ATSDR."

- Is IL EPA aware of ATSDR's inappropriate derivation of the LOAEL in which it adopts a value of 0.4 milligrams per kilogram (mg/kg) despite the key study ATSDR relied upon identifying a 1.6 mg/kg LOAEL?
- Does IL EPA agree with ATSDR's approach? Please explain.
- Does IL EPA have an obligation to independently evaluate the concerns ACC identified above or other scientific shortcomings before adopting ATSDR's toxicity value as part of its Proposed Amendments? If not, please explain.

4. In response to ACC's pre-filed question 8 regarding IL EPA's use of the California Office of Environmental Health Hazard Assessment (OEHHA) as its toxicity source for PFOA given concerns about its reliance on animal studies that have limited relevance to humans, IL EPA states that "[c]oncerns regarding the basis for OEHHA's development of its toxicity value are more appropriately directed to OEHHA." IL EPA also quotes OEHHA's response to comments filed in a separate action, the Notice of Intent to List Perfluorooctanoic Acid as Causing Cancer Under Proposition 65. IL EPA does not indicate whether it agrees with OEHHA's response to comments or explain how it relates to OEHHA's prior analysis.

   - Is IL EPA aware OEHHA relied upon animal studies assessing the cancer risk from PFOA exposure despite scientific literature concluding that observed tumors are induced through a mode of action that is dependent on activation of peroxisome proliferation (PPARα), which has limited or no relevance to humans?
   - Is IL EPA aware that scientific literature has questioned the relevance of these animal studies in relation to PFOA carcinogenicity, and does IL EPA agree with OEHHA's approach? Please explain.
   - Does IL EPA have an obligation to independently evaluate the scientific concerns ACC identified before adopting OEHHA's toxicity value as part of its Proposed Amendments?

5. IL EPA relies upon the International Agency for Research on Cancer's (IARC) designation that PFOA is "possibly carcinogenic to humans" despite the fact that IARC considered PFOA to be a "possible" human carcinogen but could not rule out chance, bias or confounding with reasonable confidence in its evaluation of the scientific literature.

   - Did IEPA review the IARC monograph and the underlying studies referenced therein before adopting its findings and classifying PFOA as a "carcinogen"?
   - Does IEPA agree that without ruling out chance, bias or confounding there is uncertainty regarding causality in the PFOA carcinogen designation?
   - IEPA explains that it did not rely upon the U.S. EPA Office of Water Lifetime Health Advisories for deriving toxicity values PFOA and PFOS, at least in part because there are more recent toxicological studies available. The Health Advisories were released in 2016. The IARC monograph for PFOA was issued in 2017. Explain why IEPA determined more recent scientific literature were not relevant in classifying PFOA as a "carcinogen"?

- In general, does IEPA believe in using the most-up-date sound science in its proposed agency actions?

Section 620.Appendix C

6. In her testimony on March 9, Ms. Carol Hawbaker indicated that IL EPA approaches dose additivity of substances affecting the same organ differently than USEPA's Superfund program when assessing contamination with multiple substances. While USEPA considers substances affecting the same target organ as part of a screening assessment, it only assumes additivity for substances acting by a common of action when conducting a more refined assessment. According to the language of Appendix C and Ms. Hawbaker's testimony, IL EPA does not require that the substances act by a common mode of action to apply dose additivity.

    - What is the basis for applying an approach to dose additivity that is inconsistent with that applied by USEPA?
    - Please provide an example for the record of how IL EPA would apply the dose-additivity approach described in Appendix C to groundwater contaminated with more than one substance identified in Appendix E as affecting the same target organ (e.g., liver). The example should include at least one of the PFAS for which IL EPA has proposed a ground water standard

7. USEPA's Exposure Factors Handbook defines mode of action as "a sequence of key events and processes, starting with interaction of an agent with a cell, proceeding through operational and anatomical changes, and resulting in an adverse effect."

    - Is this the definition that IL EPA uses in considering mode of action?
    - Do the examples "central nervous system depression, liver toxicity, or cholinesterase inhibition" given in paragraph (a) of Appendix C meet USEPA's definition of mode of action?

IL EPA March 9 Testimony

8. GenX is the trade name for a proprietary technology platform used by one company in the manufacture of fluoropolymers. HFPO-DA is used as a polymerization aid in this platform and is as a polymerization aid in fluoropolymer manufacture. This company has never sold HFPO-DA (or GenX) as a fluorosurfactant for use in aqueous film forming foam (AFFF) and is not aware of such use of HFPO-DA or of the use of fluoropolymers in AFFF.

    - Does IL EPA have specific knowledge of the use of HFPO-DA(or GenX) as a surfactant in AFFF?
    - Does IL EPA have specific knowledge of the use of fluoropolymers made with the GenX technology platform in AFFF?

9. In her March 9 testimony, Ms. Hawbaker indicated that IL EPA's source of information for the use of HFPO-DA is the Interstate Technology Regulatory Council. ACC has been unable to find a reference to HFPO-DA (or Gen-X) in the AFFF chapter in the ITRC document.

    - Please provide for the record the specific reference in the ITRC material to the use of HFPO-DA (or GenX) in AFFF.