

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO) R 22-18
GROUNDWATER QUALITY) (Rulemaking – Public Water Supplies)
35 ILL ADM. CODE 620)

NOTICE OF FILING

TO: Mr. Don Brown,
Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601
(VIA ELECTRONIC MAIL)

Vanessa Horton,
Hearing Officer
Illinois Pollution Control Board
100 West Randolph
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Chicago, Illinois 60601
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(See Persons on Attached Service List)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board, **THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S PRE-FILED ANSWERS TO DYNEGY MIDWEST GENERATION, LLC, ET AL.**, copies of which are hereby served upon you.

Respectfully Submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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By: /s/ Sara Terranova
Assistant Council
Division of Legal Council

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THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY’S PRE-FILED ANSWERS TO DYNEGY MIDWEST GENERATION, LLC, ET AL.

The Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”), by and through its attorneys, and pursuant to the Illinois Pollution Control Board’s (“Board”) Notice of Hearing dated January 13, 2022, submits the following Pre-filed Answers to the Dynegy Midwest Generation, LLC, et al. (“Dynegy”) Questions for the hearing scheduled on March 9-10, 2022.

Dynegy Question 1

For the groundwater quality standards the Agency is proposing based on irrigation of crops or protection of livestock, has the Agency considered any information regarding whether groundwater in Illinois is used for the specific purpose the standard is based upon (for example the type of livestock, method of irrigation, and/or crop being irrigated)? If so, what information has the Agency considered?

Agency Answer 1

The proposed groundwater quality standards are based on values listed in “Water Quality Criteria,” by the National Academy of Sciences (1972). In the Board’s October 4, 2012, Final Opinion and Order for R08-18, the Board stated:

“IERG expressed concern regarding the Agency’s reliance upon the National Academy of Sciences’ 1972 *Water Quality Criteria* document in basing some Class II standards upon livestock watering or irrigation factors. The Board found that the Agency properly relied upon the 1972 document because some Class II standards are based upon support of a use other than potability (e.g., livestock watering, irrigation, industrial use) where the different use requires a more stringent standard. *Id.* at 18.”

Dynegy Question 2

Under the toxicity hierarchy the Agency has used to determine toxicity values for calculating Human Threshold Toxicant Advisory Concentrations (“HTTAC”) under Appendix A, would the Agency use a Tier 3 source over a Tier 2 source when the Tier 3 source has a higher confidence level in its toxicity value than the Tier 2 source?

Agency Answer 2

As stated on page 9 of Carol Hawbaker's pre-filed testimony, the Agency sets its toxicity values for Parts 742 (TACO) and 620 to be consistent with the toxicity values listed in USEPA's RSL, with a few exceptions, as noted on page 9 of the testimony.

Dynegy Question 3

Are European sources, such as the European Food Safety Authority or Dutch National Institute of Public Health and the Environment, part of the Agency's hierarchy for determining toxicity values? If so, where do those sources lie in the hierarchy?

Agency Answer 3

European sources are unranked alternate Tier 3 sources.

Dynegy Question 4

Has the Agency considered background concentrations in developing the proposed new Class I and Class II groundwater quality standards? If yes, please describe which datasets were used and how those concentrations were considered.

Agency Answer 4

The proposed new Class I standards were developed using the proposed methods in Part 620, Subpart F and Appendix A. The Class II standards were calculated in accordance with the procedures discussed on pages 28-30 of Carol Hawbaker's pre-filed testimony. The Agency did not consider background concentrations in developing the proposed new Class I and Class II groundwater quality standards. Background concentrations are not a factor for deriving groundwater quality standards.

Dynegy Question 5

Please describe how background levels of a contaminant impact the applicability of the groundwater quality standards in Part 620 at a particular location.

Agency Answer 5

Program-specific regulations determine how background levels of a contaminant impact the applicability of the standards. For example, 35 Ill. Adm. Code 742 (TACO) allows for determinations of area background and the use of area background concentrations to exclude contaminants of concern.

Dynegy Question 6

Please describe how the groundwater quality standards in Part 620 are enforced.

Agency Answer 6

The Part 620 groundwater quality standards are enforced by the Agency pursuant to its authorities under Title VIII and XII of the Illinois Environmental Protection Act (Act), including but not limited to, Sections 31, 42 and 43 of the Act, 415 ILCS 5/31, 42 and 43 (2020). The Agency would utilize the aforementioned authorities to ensure that any violations of the Part 620 groundwater quality standards are appropriately addressed.

Dynegy Question 7

How are background concentrations of a regulated constituent taken into consideration when evaluating whether there is an exceedance of a Part 620 groundwater quality standard at a particular location?

Agency Answer 7

Program-specific regulations determine how background concentrations of the constituent are taken into consideration.

Dynegy Question 8

In those instances where background concentrations of a constituent are higher than the Part 620 groundwater quality standard for that constituent, how is it determined whether there is an exceedance?

Agency Answer 8

Program-specific regulations determine how groundwater exceedances attributed to background shall be addressed.

Dynegy Question 9

What methodology/methodologies did the Agency use to establish lower limit of quantification (LLOQ) or lowest concentration minimum reporting levels (LCMRL) for constituents? Did that methodology (or those methodologies) include determining whether an LLOQ or LCMRL is an achievable target using unfiltered groundwater samples?

Agency Answer 9

The LLOQs and LCMRLs for each constituent are to be established and verified by each laboratory that is performing the analysis. The particular LLOQs and LCMRLs were determined by the laboratory's ability to achieve these levels of quantitation while meeting all method quality control acceptance criteria. Groundwater samples are filtered during the preparation step using SW-846 Method 3512.

Dynegy Question 10

What information did IEPA consult to determine whether an alternative to the default 0.20 relative source contribution is appropriate when setting Class I groundwater quality standards using the HTTAC formula in Appendix A?

Agency Answer 10

Illinois EPA bases its Relative Source Contribution (RSCs) on USEPA RSCs.

Dynegy Question 11

Did IEPA consider background dietary intake by children of molybdenum prior to utilizing a relative source contribution of 0.2 to derive the proposed Class I groundwater quality standard for molybdenum? If so, what information did IEPA consider?

Agency Answer 11

Illinois EPA did not consider dietary intake by children of molybdenum when determining a relative source contribution of 0.2 for molybdenum.

Dynegy Question 12

Did the Agency consider whether any of the constituents for which it is proposing groundwater quality standards are essential nutrients? If so, in what way did the Agency take that into account?

Agency Answer 12

USEPA Risk Assessment Guidance for Superfund Volume 1 Human Health Evaluation Manual Part A lists the essential human nutrients as iron, magnesium, calcium, potassium, and sodium. USEPA further recognizes nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, and silicon as essential nutrients for plant growth; and nitrogen and phosphorus as the limiting nutrients in aquatic environments. Of these constituents, iron is the only one for which a groundwater quality standard is included in Part 620 regulations. The value for iron will not change with these proposed amendments and is set at 5 mg/L, which is the 95% confidence concentration stated in Illinois EPA's "Integrated Water Quality Report and Section 303 (d) List."

Respectfully Submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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By: /s/ Sara Terranova
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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that I have electronically served **THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S PRE-FILED ANSWERS TO DYNEGY MIDWEST GENERATION, LLC, ET AL.** on March 7, 2022, to the attached service list. I further certify that my email address is sara.terranoa@illinois.gov and that the email transmission took place before 5:00pm.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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Electronic Filing: Received, Clerk's Office 3/07/2022