

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

In the Matter of: )  
 ) R 2022-018  
PROPOSED AMENDMENTS TO )  
GROUNDWATER QUALITY ) (Rulemaking – Public Water Supply)  
(35 ILL. ADM. CODE 620) )

**NOTICE OF FILING**

To: ALL PARTIES ON THE SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board, **THE NATIONAL WASTE AND RECYCLING ASSOCIATION'S SECOND SET OF PRE-FILED QUESTIONS TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**, copies of which are hereby served upon you.

Dated: March 18, 2022

By           /s/ Claire A. Manning          

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**THE NATIONAL WASTE AND RECYCLING ASSOCIATION’S**  
**SECOND SET OF PRE-FILED QUESTIONS TO THE**  
**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

The National Waste and Recycling Association (“NWRA”), by and through its attorneys, Claire A. Manning and Anthony D. Schuering of BROWN, HAY + STEPHENS, LLP, and James M. Morphew, SORLING NORTHRUP, and pursuant to the Notice of Hearing of the Illinois Pollution Control Board (the “Board”) dated March 10, 2022, submits the following Second Set of Pre-Filed Questions to the Illinois Environmental Protection Agency (the “Agency”). The NWRA has not earmarked each of its questions to a specific individual at the Agency, but requests that the most appropriate person at the Agency answer the question.

**I. Follow-up: Board’s Questions to Illinois Environmental Protection Agency.**

1. In Response to Question 1 of the Illinois Pollution Control Board (the “Board”)’s Pre-Filed Questions to the IEPA, the Agency cited guidelines promulgated by the U.S. Environmental Protection Agency (“U.S. EPA”)’s Environmental Council of the States and Association of State and Territorial Health Officials PFAS Science Group (“ECOS”). Those guidelines indicate that Illinois applies SW-846 Method 8327 as its standard for analyzing PFAS in surface water, groundwater, and wastewater. *See* Guidelines, p. 22, *available at* <https://www.ecos.org/wp-content/uploads/2021/04/Updated-Standards-White-Paper-April-2021.pdf>. However, the Guidelines note that SW-846 Method 8327 “does not yet provide low-level detection . . . and is only intended for the testing of non-potable waters.” *Id.* Further, the Guidelines note that the U.S. Department of Defense (“DOD”) published a memo stating that SW-846 Method 8327 “does not meet its needs to support decision-making and advises its use for screening purposes only.” Guidelines, p. 22.

- (a) Please explain why the Agency believes that SW-846 Method 8327 is an appropriate analytical standard to use for analyzing PFAS in surface water, groundwater, and wastewater at the groundwater quality standard (GQS) proposed.

- (b) Does the Agency disagree with DOD's assessment that SW-846 Method 8327 should be used "for screening purposes only"?
- (c) If the answer to (b), above, is in the affirmative, please explain the Agency's basis for disagreeing with the DOD's assessment.
- (d) If the answer to (a), above, is in the negative, please explain why the Agency continues to use SW-846 Method 8327 in spite of the DOD's assessment that it should be used "for screening purposes only."

2. In Response to Question 1 of the IPCB's Pre-Filed Questions to the IEPA, the Agency cited a spreadsheet from the Interstate Technology Regulatory Council, which the Agency says was published in December 2021. However, the link provided by the Agency connects to provides a document that was updated in February 2022.

- (a) Can the Agency provide the specific information that was used as part of this proposed rulemaking?
- (b) If the information on the ITRC's website changes, how will the regulated community know what the Agency is basing its decisions upon?

3. In Response to Question 1 of the IPCB's Pre-Filed Questions to IEPA, the Agency provided a list of adopted or proposed standards from other states, but it did not respond to IPCB's request that it comment on "how they compare with the Agency's proposal." Agency testimony on such comparison was also minimal.

- (a) Please explain how the Agency's proposal compares to that of what other states have adopted as enforceable standards.
- (b) Please provide a comparison as to how the other states standards referenced were derived, versus how the Agency has derived its proposed standards (i.e., through the review of select testing from community water supplies).
- (c) Is the Agency aware of any state that has adopted a groundwater standard that is based upon infant risks associated with PFAS in drinking water and had those standards apply as enforceable standards relative to wastewater, leachate, surface water, or land remediation? If so, which states?

4. In Question 8(a) of the IPCB's Pre-Filed Questions to the IEPA, the Board asked the Agency how many GMZs have been established pursuant to Part 620 since its inception. The Agency stated that it "searched available records" and concluded that there are "22 sites that have been approved for a GMZ pursuant to 620.250(a) and (b)."

- (a) Is it correct that this number does not include GMZs that have been approved under § 620.250(d), which references GMZ establishment under § 740.530 for sites undergoing remediation pursuant to the SRP?
- (b) Have any GMZs been established in accordance with § 620.250(d)?

- (c) If the answer to (b), above, is in the affirmative, please identify how many GMZs have been established in accordance with § 620.250(d).
- (d) Since the Agency did not include any Part 740 GMZs in its response, does the Agency consider these GMZs not created pursuant to Part 620?

5. In Question 8(b) the Board asked how many of the GMZs established since the adoption of Part 620 were still active and then asked the Agency to specify the dates on which they were established. Of the 22 sites mentioned by Agency, the Agency stated it believed 20 were still active but it did not respond to the Board's question as to when the GMZ's were established.

- (a) What dates were the 22 GMZs established?
- (b) If additional GMZs are identified pursuant to (4) above, what are the dates that they were established?

6. In Question 8(g) and (h) the Agency responds to Board questions concerning Part 620, Appendix D, but its answers do not appear to include GMZs established at RCRA Subtitle C facilities. Instead of being required to submit information pursuant to Appendix D, the Agency has required the sites to submit the information identified on the Agency website, under "Re-evaluation of Groundwater Management Zones at RCRA Facilities".

- (a) Are these RCRA facilities included in the 22 GMZ's cited by the Agency?
- (b) Where is the Part 620 Appendix D referenced in the Board's Part 620 rules? Is it referenced in any other Board rules?
- (c) Given the Agency's answers to Board's question 8, are the proposed Part 620 changes intended to represent a change to the Agency's current method of regulating GMZ's at RCRA facilities? If so, how?

7. In response to Board question 8(q) the Agency states that the last two sentences of Section 620.250(c) (five-year evaluation requirement) only become applicable after a GMZ has expired, yet NWRA is aware of many RCRA Subtitle C GMZs where the five-year evaluation has been required by permit, as part of ongoing corrective actions – even though the GMZ has not expired at these sites.

- (a) Is the Agency here drawing a distinction between GMZs established under Part 620 and those that are in place at RCRA Subtitle C facilities and regulated thereunder? If so, explain.

8. In response to Board Question 9(d) the Agency indicates that all but seven of the 22 approved GMZs it cited are associated with CCR surface impoundments. Yet, NWRA is aware of many approved GMZs that are not related to CCR surface impoundments and not approved pursuant to Part 740 (e.g., 2 at the CID RDF; 1 at the Laraway RDF; 1 at Envirofil; 5 at Valley View landfill; 2 at DeKalb RDF; 1 at Milam RDF; 1 at Wilsonville).

- (a) Why were these GMZ's omitted in the Agency's analysis of number of GMZs it reported in its answer to the Board's questions?
- (b) Are the Agency's responses here, and its proposed changes to Part 620, intended to change how the Agency regulates or establishes GMZs at RCRA landfill sites?

9. In response to Board question 21 related to applications for GMZs and Part 620 Appendix D, the Agency's answers omit the Bureau of Land practice of requiring GMZ applications at RCRA landfills to be submitted in the form of a permit modification that includes the information required on the Agency's web site, under "Re-evaluation of Groundwater Management Zones at RCRA Facilities".

- (a) Can the Agency explain its perspective as to whether and, if so how, GMZs at RCRA sites are regulated in a manner that is distinct from the Part 620 provisions – both as those provisions currently exist, and as they might change pursuant to this proposal? If not, why not?
- (b) If the Agency's proposal is adopted, would future GMZ applications and 5-year re-evaluations for RCRA Subtitle C facilities be required to follow a format different than that currently in place? If so, please explain.
- (c) Are the Agency's responses here, and its proposed changes to Part 620, intended to change how the Agency regulates GMZs at RCRA landfill sites?

10. In Question 25 the Board asked whether the references as to who conducts groundwater monitoring in Section 620.302(b) should be modified. In response, the Agency agreed that the list needed to be updated but should not include those persons who conduct groundwater monitoring pursuant to specific program requirements that are distinct from Part 620, specifically mentioning TACO, UST and SRP rules explaining that "these programs, like others, contain their own procedural requirements regarding groundwater monitoring and activities that must be conducted when groundwater contamination is detected" and that "they do not need to rely upon the requirements in Subpart C of Part 620 regarding groundwater monitoring, notification and response." The Agency then added to that list of such excluded programs landfill sites regulated under Parts 807 and 811 (see second sentence of Section 620.302(b)(1)). Yet, the first sentence of that section (identifying those who conduct groundwater monitoring pursuant to Part 620) also includes Part 807. The Agency's testimony on this point was vague and inconclusive.

- (a) Please explain the applicability of Section 620.302 (d) as to RCRA sites regulated under Parts 807 or 811.
- (b) Is corrective action required whenever a contaminant exceeds a standard set forth in Section 620.410 or 620.430, as articulated in 620.302(d) – or do more specific program requirements of Part 807 or 811 or permits thereunder apply?

- (c) To what extent does the Agency intend to have 807 or 811 permits require corrective action whenever these newly proposed PFAS standards are detected as exceedances in landfill monitoring wells?
- (d) Where a landfill permit generally references adherence to Part 620 and the Groundwater Protection Act, does the Agency intend that any detected exceedance of PFAS detected in landfill groundwater monitoring wells is an enforceable violation of the entity's permit, the Board's regulations and/or the Act? Please explain.

**II. Follow-Up: Agency answers to NWRA questions.**

11. Question 2(e) was meant to address state accredited laboratories, not state owned/operated laboratories. Please re-state your response to reflect state accredited laboratories.

12. Question 2(f) - In setting standards, the technological capability to perform the testing for the standard must be available to the regulated community.

- (a) Does the Agency agree?
- (b) Does the Agency believe the testing requirement necessary for its rule proposal is technically feasible? If so, explain.
- (c) Do any of the February 2022 changes impact the current proposal?

13. In response to question 3 the Agency provided, as requested, the correct link. In accessing that link, it is clear that the list referenced was updated after the Agency's rule was filed.

- (a) Can the Agency provide the information that was included at this link when the rule was filed?
- (b) Do any of the February 2022 changes impact the current proposal?

14. In response to question 4 the Agency provided, as requested, the correct link. Some of the GQS chemical constituents are listed on this particular web site are listed as "In prep." or "2022 online".

- (a) How do the changes made to this list after the proposed rule was filed, impact the current regulatory proposal?
- (b) Will the Agency provide the list of classifications that was in effect at the time that this rule-making was filed, so that the regulated community can adequately evaluate the information?

15. In questions 7-22 the Agency has effectively refused to address how its proposed standards will be implemented in its Bureau of Land programs and yet, experience with other changes to groundwater standards would suggest that any exceedance of a newly adopted

groundwater standard may be immediately enforceable as a violation of the Board's regulations, the Act, and potentially the entity's landfill permit.

Under the Administrative Procedures Act and Section 27 of the Illinois Environmental Protection Act, the regulated community has a right, and the Board an obligation, to understand how this rule will be implemented across other regulatory programs – in order to effectively assess the reasonableness of the costs of the proposed standard as it will be applied. Accordingly, NWRA reiterates its request that the Agency address the questions posed in NWRA's Pre-filed Questions and, based upon the proceeding before the Board thus far, we add the following follow-up questions:

- (a) Will all of the new or adjusted GQS concentrations be required to be met for sites with a currently approved GMZ, prior to these sites being able to achieve completion of corrective action and release from the GMZ?
- (b) How does the Agency intend to address any conflicting requirements of Part 620 and Parts 807 and 811?
- (c) What is the Agency's view of where those programs conflict with the changes to Part 620?
- (d) Will the Agency consider modifying its proposal to ensure applicability only for those purposes consistent with the risks addressed in the Agency testimony (i.e., health risks to those who drink water with constituents in excess of the standard)?
- (e) More specifically, will the Agency agree to refrain from implementation or enforcement of any newly adopted PFAS groundwater standards as to other programs until after the Board has the opportunity to understand those relevant risks and promulgate rule changes appropriate to those programs?

16. In follow-up to the Agency's answer to Question 27, Part 620.605(b)(1) is specific to Issuance of Health Advisories and does not address the question regarding analytical quantification.

- (a) Based upon the Agency's response, is the Agency proposing that this statement would be applicable to all of the GQS standards and a laboratory's ability to achieve the GQS limits?
- (b) Is this concurrence by the Agency that the GQS may not always be achievable and that the LLOQ or LCMRL obtained by the laboratory would then be considered the GQS for compliance purposes?

17. In follow-up to the Agency's answer to Question 30:

- (a) If lithium and molybdenum are being added solely as a result of coal ash data, what basis is there for a statewide standard applicable to all regulatory programs?
- (b) As to HFPO-DA, please identify and locate the “monitoring wells in Illinois from Illinois EPA Bureau of Land program sites” that form the basis for the Agency’s justification for proposal of this standard.
- (c) As to 1-methylnaphthalene, please provide a minimum of a range of detected and quantified concentrations as it has for Aluminum.

18. In follow-up to question 31:

- (a) Can you please provide examples of locations, both groundwater and surface water, with the corresponding "finished water" location, in order to allow a review of at least some of the data the Agency utilized as justification for its proposal. The IEPA "Drinking Water Watch" is a large database with numerous selections to search from, making the comparisons difficult for anyone without an extensive knowledge of the system.

19. In follow up to question 32(a) as Part 620 applies to drinking water from sources other than just public water supplies, will the Agency be preparing guidance, or will additional information be added to the proposed regulations to address how samples will be required to be collected, as the procedures and equipment for groundwater sampling from non-public water supplies may include wells, pumps or tubing that are currently constructed of Teflon?

20. In follow up to question 32(b) where can the public and the Board obtain the sampling data referenced?

- (a) What was the source of the data sampled?
- (b) Who (i.e., what laboratory) conducted the sampling?

21. In follow up to question 33, if HFPO-DA was detected in only one location as part of the site remediation program, why is it being added for all sources?

- (a) Would it not be more prudent to make this a site specific or project specific standard?
- (b) If not, why not?

22. In follow-up to question 34, the Agency (in response to question 27) answered as follows: "As stated in Part 620.605(b)(1) of the proposed rulemaking: “If the concentration for such substance is less than the lowest appropriate LLOQ or LCMRL for the substance, incorporated by reference at Section 620.125, the guidance level is the lowest appropriate LLOQ or LCMRL.”



- (a) It appears that the Agency's response to Question 34 indicates that the LLOQ or LCMRL should be used as the guidance level if the method cannot otherwise achieve the GQS. This answer appears to state that the analytical method must provide for a LLOQ/LCMRL below the groundwater quality standard. Which is correct?
- (b) What if the analytical method cannot achieve the GQS due to matrix interferences or other limitations?

23. In follow-up to question 35, where NWRA asked for information related to the laboratories that could perform the testing required by this new Part 620 methodology, the Agency simply stated: "IEPA has identified Illinois laboratories that are capable of meeting the proposed groundwater quality standards."

- (a) Please identify the commercial laboratories that were found to be able to meet the proposed GQS.
- (b) Are these laboratories IEPA-accredited for all of the Part 620 constituents?

24. In follow-up to question 36, does the Agency believe that a single laboratory 'concept' is an appropriate concept to use in an interlaboratory and multiple regulated party standards-setting process?

- (a) Where is the justification for setting standards at the LLOQ in SW-846?
- (b) The word "optimally" is used in the Agency's response. What if the LLOQ is not less than the regulatory action level? Does this infer that the Agency recognizes that an LLOQ below the proposed GQS may not always be achievable?

25. In follow-up to questions 37 and 38, while the Agency is proposing changes to lab definitions like LLOQ and LCMRL to set the GQS here, those new definitions represent proposed changes to the current Part 620 definitional methodology understood and utilized by the regulated community and laboratories with whom they contract (i.e., the PQL).

- (a) Why is the Agency not using the PQL in this rule making for setting the numeric standards?
- (b) The Agency would agree that this represents a change to Part 620 never before proposed?

26. In follow-up to question 39, will private well owners be required or encouraged to sample and analyze their drinking water for compliance with the Class I GQS?

27. As to question 47, the Agency's SOP details procedures for collecting samples of drinking water from sampling taps and plumbing which shall be free of materials containing Teflon or, if these cannot be avoided, to ensure the tap has been flushed for at least 5 minutes.

- (a) Will these procedures be required by the Agency for all PFAS sampling where comparison to the Part 620 standards is required?

28. As to question 49, the Part 811 regulations require analytical data below the PQL, to be reported as non-detect (ND).

- (a) When analytical results are reported for compliance with BOTH the Part 811 regulations (e.g., groundwater assessment) and the proposed new Part 620 regulations, is the Agency prepared to support the regulated community reporting two potentially different sets of analytical data to ensure compliance with both the Part 620 and Part 811 regulations and to having two sets of data in the Agency's database?
- (b) Which represents the enforceable standard?

29. As to question 50(b), can the Agency provide the names, or at a minimum, the number of the IEPA accredited laboratories that can achieve these newly proposed GQS levels?

- (a) Can the Agency provide the cost for analysis of each constituent, so that the regulated community can effectively determine the economical impact for the new and/or lowered standards?
- (b) As the regulated community has existing relationships with existing laboratories, based upon the existing state regulations, does the Agency appreciate the costs associated with the potential for changing laboratories or requiring the potential use of more than one laboratory for sampling groundwater from groundwater monitoring wells?

### **III. Follow Up Questions from Other Participants.**

30. As to IERG's question 2, Table 5 in Method 537.1 lists DLs both higher and lower than 2.0 ng/l. These DLs are based upon reagent water.

- (a) What were the actual DLs and MRLs for the Community Water Supply sampling drinking water analyses?
- (b) On that same theme, when will the Agency provide the information it stated it would provide in response to Member Gibson's request? (Tr. P. 53; Q: Do you have specific numbers from the community water systems? A: No, we do not, but we can provide this.)

31. As to IERG'S question 5, if PFAS have been found in air, water and soil in Illinois, how does the Agency propose to address background concentrations for each media as potential contributors to possible background concentrations in groundwater where an upgradient source may not be the source of PFAS at a regulated facility?

32. As to IERG'S question 7, the Agency has indicated that any actions related to the USEPA Federal Drinking Water Standard for PFAS are independent of the rulemaking for revision of the 620 Groundwater Quality Standards. Further, in the Agency's testimony (pp. 50-52) Ms. Hawbaker testified that the Agency's proposed rules do not rely on USEPA values, declaring the USEPA an unranked Tier III source for toxicology, and instead rely on ATSDR and California values – citing authority to do so in prior Board Part 620 proceedings.

- (a) Please point to the prior opinions of the Board where the Board has specifically and knowingly determined to disregard USEPA values in favor of those from other states or agencies.

33. As to Midwest Generation's question 8, would a petition to the IPCB for an adjusted standard be required where background concentrations of a constituent are higher than the Part 620 groundwater quality standard for that constituent?

34. As to Midwest Generation's question 9, the Agency's answer indicates that groundwater samples are filtered during the preparation step using SW-846 Method 3512. This method is for solvent dilution of non-potable waters and has been evaluated for 24 PFAS in conjunction with method 8327. The method indicates that this preparation method may also be applicable to other target compounds, provided the laboratory can demonstrate adequate performance. The method summary indicates that samples are prepared by adding isotopically labeled analogs of PFAS target analytes.

- (a) How would this be applicable to other organic or inorganic compounds?

#### **IV. Questions from the March 9, 2022 Hearing Transcript.**

35. At the Board's March 9, 2022 hearing, the Agency offered its opinion that "any results" from a sampling effort of treated water were "not helpful at all to the development of the groundwater or the proposed groundwater revisions[.]" Mar. 9, 2022 Tr., p. 17. Given this opinion, why are community water supply sampling efforts for PFAS being used as part of this proposed groundwater rulemaking?

36. At the Board's March 9, 2022 hearing, the Agency explained that, "in practice", the Part 620 standards for PFAS will be "used for the valuation of groundwater quality for private residential wells in the state and also be used for remedial activities for potential other contaminated sites where we're looking at cleaning up or what type of remedial activities will be necessary for protecting the groundwater of the state." Mar. 9, 2022 Tr., p. 20. If true, the Part 620 standards would not be used for groundwater assessment purposes under 35 Ill. Admin. Code Part 811, since these are not private residential wells, clean-up is not being looked at, nor are types of remedial activities being reviewed. The standards would only be applicable when a site goes to remedial action.

- (a) Does the Agency have any additional comments on applicability of the Part 620 regulations based upon the previous testimony?
- (b) Would the Agency consider adding this clarification to the regulations?

37. At the Board's March 9, 2022 hearing, the Agency explained that it was proceeding with its proposed revisions ahead of the "IRIS assessments being finalized" because the Agency:

know[s] there's a groundwater threat now, and we want to take care of it. We want to address it as soon as possible. It's the same with any other toxicity update. We -- when it gets updated, then we incorporate that in new information that at this point we know it's in the groundwater. We know that people can be affected by drinking that groundwater, and it's time for us to take action.

Mar. 9, 2022 Tr., p. 27.

Please provide a list of all known groundwater data sources that are available to support this statement.

38. At the Board's March 9, 2022 hearing, the Agency explained that it set its minimum reporting standards at 2 nanograms per liter for PFOA, and that its minimum reporting standards were "generally" a "little bit" lower "across the Board" as compared to other states. Mar. 9, 2022 Tr., p. 30.

- (a) What is the Agency's justification for using a minimum reporting level of 2 nanograms per liter?
- (b) Is the Agency aware of any analyses that would indicate that this reporting level may not be analytically achievable for groundwater analyses?
- (c) If the answer to (b), above, is in the affirmative, please identify all of those analyses.
- (d) In making this statement, the Agency is acknowledging that it has compared the proposed standards to other states—please identify which states were used for the comparison.
- (e) Please provide the concentrations for these other states used in the comparison.

39. At the Board's March 9, 2022 Hearing, the Agency's witness indicated that if contamination is present above a groundwater standard, it's more about excluding the exposure pathway when it comes to the Bureau of Land programs, than requiring cleanup. Mar. 9, 2022 Tr., p. 40. The Bureau of Land programs related to landfills do not in general consider exposure pathways. They are based upon source identification and contaminant removal or remediation. What is the Agency's basis for this statement?

40. At the Board's March 9, 2022 Hearing, the Agency's witness indicated that the groundwater standards that they developed are based on what is in the Board's current Part 620 regulations. Mar. 9, 2022 Tr., p. 44. Is the Agency referring to the current Part 620 regulations, or the Part 620 modifications that are being proposed?

41. At the Board's March 9, 2022 Hearing, the Agency indicated that it was not sure how modifications to the remedial programs will be made when the Agency changes the regulations based on the fact that new studies are emerging. The Agency further indicated that this is a "rather common occurrence". Mar. 9, 2022 Tr., p. 48.

- (a) Can the Agency provide examples of how such modifications have been made in the past?
- (b) Aren't regulatory changes required?

42. At the Board's March 9, 2022 Hearing, the Agency indicated that they cannot ascertain the costs of remediation without first establishing a standard. Mar. 9, 2022 Tr., p. 56. Has the Agency not evaluated the cost of its proposed standard across the various programs to which it will become applicable?

43. At the Board's March 9, 2022 Hearing, the Agency acknowledged that Class 1 groundwater standards are potable water (drinking water) standards. Mar. 9, 2022 Tr., p. 88. Why is it then appropriate to utilize these PFAS standards for groundwater monitoring wells that are not used as drinking water source?

44. At the Board's March 9, 2022 Hearing, the Agency explained that Method 8327 has recently been added to EPA's SW-846 methods manual for analyses of PFAS in various media other than drinking water. However, the Agency indicated that they recommend Method 537.1 be used, which is a drinking water method the Agency uses for community water supply wells and surface water. Mar. 9, 2022 Tr., p. 108.

- (a) Is Agency is recommending that Method 537.1 be used for PFAS analyses in groundwater, and potentially contaminated groundwater, instead of an approved USEPA Method 8327 for this type of matrix?

45. At the Board's March 9, 2022 Hearing, the Agency's witness indicated that Method 537.1 was the only test method approved for drinking water for compliance determinations, but appeared uncertain as to whether this was limited to drinking water in public water supplies. Mar. 9, 2022 Tr., p. 111.

- (a) Could the Agency clarify its answer at this time?
- (b) Has the Agency reviewed other applicable analytical methods, especially those already included in Part 620.125, and determined whether those methods may also be appropriate?

46. At the Board's March 9, 2022 Hearing, the Agency indicated that they did not believe that Method 8327 could be used as, "I do not believe they're LLOQ meets the minimum reporting level". Mar. 9, 2022 Tr., p. 112.

- (a) Who's LLOQ is the Agency referring to in their statement?

- (b) Based on this statement, can we conclude that the Agency is requiring compliance with the proposed standards, based upon a method which has not been approved for the specific analytical matrix (groundwater) and requiring instead that a drinking water method be used? If not, please explain.
- (c) Both methods (Method 537.1 and Method 8327) are specified in the proposed regulations. Can the EPA SW-846 approved method for groundwater analyses (Method 8327) be used if the quantification/reporting level is at or below the Part 620 standard?

47. At the Board's March 9, 2022 Hearing, the Agency indicated that, "for Class 2 groundwater in this particular place, it does not have the treatability. It does not have the chemical specific factors to qualify it to have a treatability factor." Mar. 9, 2022 Tr., p. 119. Yet in the Agency's Answer 46 to the NWRA pre-filed questions, the Agency has indicated that treatment factors have been applied for 2 inorganic constituents and for the organic constituents at 620.420(b)(1). The testimony is confusing as it appears to indicate that the Class II standards are not based upon treatability, yet the response to the NWRA comments appears to indicate that the standards are based upon treatability.

- (a) Can the Agency clarify this apparent inconsistency?
- (b) The Agency has further indicated that "One of the factors with Class 2 groundwater is the ability to make it for beneficial use, make it available to be used as Class 1 groundwater if treated." What are the other factors?
- (c) A Class 2 groundwater is not solely dependent upon the ability to be treated to a Class II standards. The Class 1 requirements specified in 35 IAC 620.210(a)(2 - 4) are not quality dependent, but based upon the characteristics of the aquifer or groundwater zone. Thus, a Class 2 groundwater may never be able to achieve the Class 1 standards due to factors other than treatability. Can the Agency please clarify this point?

48. At the Board's March 9, 2022 Hearing, the Agency indicated that Method 3512 (filtration) must be used as a preparation step for *all* groundwater analyses using SW-846 methods, not just PFAS. Mar. 9, 2022 Tr., p. 126. This would not provide compliance with the standards in the regulations as they listed as TOTAL concentrations - not filtered or dissolved. As such, SW-846 Method 8327 cannot be used for analyses as it would be required to go through the sample preparation steps of Method 3512 (filtration) prior to analyses.

- (a) Can the Agency clarify why the SW-846 methods are in the regulation if they cannot be used for compliance purposes based upon this information?
- (b) The majority of constituents that require groundwater analyses under other Agency programs (e.g., Subtitle C and Subtitle D groundwater) are required to be analyzed based upon unfiltered samples. If samples are required to be collected as part of an approved GMZ at these sites, will they be required to be

analyzed in accordance with BOTH the RCRA programs requirements and the Part 620 requirements to provide both filtered and unfiltered samples?

49. At the Board's March 9, 2022 Hearing, the Agency indicated that when determining whether there is an exceedance of a Class I or Class II groundwater standard, they prefer samples not to be filtered in the field, but they've also indicated there are some cases where that has happened. Mar. 9, 2022 Tr., p. 130. The regulations specify total concentrations. As such, a field filtered sample would not be an acceptable sample for comparison to the Class I or Class II standards and therefore, cannot be an exceedance. Can the Agency please explain its rationale for considering a field filtered sample to be an exceedance of a proposed standards?

50. At the Board's March 9, 2022 Hearing, the Agency indicated that as to explosives, it would have to go back to the testimony from the previous rulemakings to determine how the RSCs were developed for explosives. Mar. 9, 2022 Tr., p. 134. Yet, the proposed standards for explosives represent a change to existing rules. Can the Agency now clarify how the RSCs were developed, and on what basis the Agency seeks to make this change?

51. At the Board's March 9, 2022 Hearing, the Agency indicated that it would look at the zone of attenuation in Part 817 to determine if it should be included under Section 620.440(B). Mar. 9, 2022 Tr., p. 158. Has the Agency had an opportunity to look at this issue, and what is its conclusion?

52. At the Board's March 9, 2022 Hearing, the Agency indicated that the technical feasibility and economic reasonableness was addressed in Section 6 of their Statement of Reasons, beginning on Page 22. That Statement of Reasons merely references prior evaluations and determinations as the basis for considering the technical feasibility and economic reasonableness of the current proposal. The referenced Board Determinations in R08-18 considered existing programs under TACO (part 742) and for RCRA facilities requiring modifications to permits under Part 702, and Closure and Post-Closure Plans under Part 725. Here, there is no such coordination or testimony as to how the Agency expects these proposed standards to be applied pursuant to Part 807 and Part 811. Without such understanding, how does the Agency justify its conclusion of economic reasonableness and technical feasibility simply on the basis of prior Board proceedings?

**V. Generally Unaddressed Key Issues from Stakeholder Outreach, Agency Proposal, Statement of Reasons, and Testimony.**

**Leachate Management**

53. A key component of landfill operations is leachate management, specifically disposal and treatment. 35 IAC 811.308 and 811.309 require the collection, disposal and treatment of landfill leachate. The impacts from the potential implementation of PFAS constituent limits and standards have already resulted in local POTW's refusing to accept MSWLF leachate due to concerns over impacts on POTW biosolids land application programs and concerns over future rule changes affecting the POTW discharge standards and imposed discharge limits. A question was posed to Illinois EPA staff during the August 19, 2021 video conference with members of the NWRA:

*Is there any intention to add PFAS limits to 35 IAC Part 309, impacting treated discharge or discharge to a treatment works as listed in Sections 811.309(c)(5) and (e), respectively?*

The resulting answer was “this would be addressed later”. This is an issue that needs further consideration as the impacts are significant with respect to operation and the economics of the landfill industry.

- (a) POTW Discharge (POTW) – What modifications will be needed at the POTW to ensure discharge limits will be met? Residuals/wastes of PFAS treatment technologies will need to be disposed of in some manner and there is a potential concern on whether or not disposal in a landfill is appropriate.
- (b) POTW Sludge Disposal – Waste water treatment sludge is often utilized as an amendment to the vegetative cover at disposal facilities to facilitate vegetative growth as well as land-applied to agricultural fields. Will surface application of such sludge be prohibited due to implementation of PFAS constituent standards/limits? If so, the sludge would need to be disposed at landfill facilities impacting available landfill capacity and significant increased cost to POTW’s. (The sludge is often disposed in the landfills. Refusal of POTWs to accept leachate from the landfill company may result in refusal of the landfills to accept the treatment sludge.)
- (c) NPDES/SWPPP Outfall Monitoring – Discharge limits may impact landfill operations, particularly if wasted water treatment sludge was utilized in final cover soil amendment. Does the Agency intend to modify discharge limits in NPDES and SWPPP permits to account for any new PFAS groundwater standards?
- (d) Discharge Limits (Privately Owned Treatment Plants) – Since it is not unreasonable to assume that several POTWs will follow suit in denying acceptance of leachate in the future. How does the Agency anticipate handling this issue based on the currently proposed PFAS water quality standards? (This issue will result in hauling leachate further distances for disposal, significantly impacting costs and increasing the carbon footprint. This may also result in permitting, construction and operation of onsite or regional treatment plants with the substantial economic impact being passed on to consumers.)

## **Economic Impact**

54. The Illinois EPA provided comments to the technical feasibility and economic reasonableness of implementation of the proposed rule changes in Section VI of the Statement of Reason. Most of the comments referenced past studies dating back to the inception of R89-14(B). The technical feasibility is still in question largely due to the extremely low standards for the proposed constituent additions proposed in Section 620.410. The Illinois EPA cites in Section VI of the Statement of Reason numerous times the past studies for implementation of 35 IAC Part 620 and subsequent revisions. However, incorporation of Hexafluoropropylene Oxide Dimer Acid



(HFPO-DA Gen X), perfluorobutanesulfonic Acid (PFBS), perfluorohexanesulfonic Acid (PFHxS), perfluorononanoic Acid (PFNA), Perfluorooctanoic Acid (PFOA), and Perfluorooctane Sulfonic Acid (PFOS), collectively referenced as PFAS constituents, with such low limits are significantly different than previous constituent additions. The potential impact of the additions and planned implementation are dissimilar and far greater than the changes previously proposed and approved to 35 IAC Part 620. Does the Agency not agree that a detailed feasibility and economic impact study prior to implementation of the rule changes is warranted not only for its 5 IAC Part 620, but as to regulatory programs/rules that will be affected by implementation of the changes it proposes to 35 IAC Part 620?

### **ROD/Consent Orders**

55. Some facilities are employing corrective action and related monitoring/reporting pursuant to CERCLA and/or consent orders. The USEPA has not approved any limits in groundwater at this time. It is assumed the proposed revisions to 35 IAC Part 620 will not be required in monitoring and assessment of these existing programs at this time.

- (a) Will the Agency please verify whether that is its understanding?
- (b) It is understood that the USEPA will propose to add only four PFAS constituents as hazardous substances (perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorobutane sulfonic acid (PFBS), and GenX) to 40 CFR Part 261, Appendix VIII. Can it be construed that when approved by the USEPA, only those four PFAS parameters will be applicable to RCRA programs within Illinois?

### **Impacts to Available Airspace from other Programs**

56. The Illinois Department Transportation (IDOT) requires all state highway projects, local projects, and other transportation projects affecting right-of-way or roads under IDOT jurisdiction to comply with Chapter 27 of the Bureau of Design and Environmental (BDE) Manual. Due care shall be exercised to determine whether regulated substances may be present on or located adjacent to property being considered for use for state highway project purposes and supporting highway operations and maintenance. A Preliminary Environment Site Assessment (PESA) is IDOT's fundamental method of demonstrating "due care". Thus, a PESA is required on every applicable fundamental project. The Illinois State Geological Survey (ISGS) conducts all BDE PESAs. If the PESA report indicates that the property(ies) investigated within IDOT's project limits has a recognized environmental condition (REC), a Preliminary Site Investigation (PSI) is conducted on the properties identified in the PESA as having a recognized environmental condition (REC). However, in IDOT's District 1 (Cook, Lake, McHenry, Kane, DuPage, and Will Counties) a PSI is conducted on all properties identified within the project limit. The PSI characterizes the nature and extent of contaminants in soils, if any, within the sampled areas and estimates the volume and cost to handle and/or dispose of such soils. The investigations also evaluate the groundwater quality that is encountered within the projected excavation. All excavated soils produced during construction must be either managed on-site, off-site as "uncontaminated soils" to a CCDD or Uncontaminated Soil Fill Operation (USFO) facility, to a solid waste landfill, or

off-site as excess soil (unrestricted). Groundwater produced during construction are managed on-site, permitted sanitary sewer, or POTW.

Studies conducted by IDOT indicates over 5,000,000 cubic yards of impacted soils are removed annually (variable from year-to-year) and disposed at either a CCDD or USFO facility or solid waste landfill as part of State roadway construction projects within District 1. Within District 1, most soils are transported offsite to either CCDD facilities, and to a much lesser extent, permitted landfills depending upon analytical results. Some soils are managed onsite if adequate space allows. PFAS constituents are present in industrialized and highly urban areas, which constitutes most areas of roadway expansion within District 1. This should be evaluated prior to approval of the proposed rule change as it can have a significant impact to available airspace of the landfill industry.

- (a) Does the Agency not agree to the influx of PFAS contaminated soil from IDOT roadway work within District 1 could overwhelm the currently readily available air space, assuming the landfill facilities will accept the waste?
- (b) Will CCDD facilities be able to accept soil with PFAS constituents? And if so, at what level?
- (c) Has the Agency considered the increased cost of disposal of large quantities of soil, which could cause the state an additional \$3,000,000,000, depending upon the volume and disposal rates?

**CERTIFICATE OF SERVICE**

I, the undersigned, certify that on this 18<sup>th</sup> day of March 2022, I electronically served **THE NATIONAL WASTE AND RECYCLING ASSOCIATION'S SECOND SET OF PRE-FILED QUESTIONS TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY** upon the individuals on the attached service list. I further certify that my email address is [cmanning@bhslaw.com](mailto:cmanning@bhslaw.com).

Dated: March 18, 2022

By           /s/ Claire A. Manning          

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