

ILLINOIS POLLUTION CONTROL BOARD

June 20, 2008

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STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO	)	R08-18
GROUNDWATER QUALITY STANDARDS,	)	(Rulemaking – Public Water Supply)
35 ILL. ADM. CODE 620	)	

**HEARING OFFICER ORDER**

This order addresses the prefiling deadline for the second hearing in this rulemaking and sets forth questions posed by Board staff to the Illinois Environmental Protection Agency (Agency) at the first hearing.

**Prefiling Deadline for the Second Hearing**

On June 18, 2008, in Chicago, the Board held the first hearing in this proceeding. At hearing, the hearing officer established a deadline to prefile testimony for the second hearing. The second hearing is scheduled to take place on July 16, 2008, in Springfield, as specified in the hearing officer's notice of hearing dated April 21, 2008. For the July 16, 2008 hearing in Springfield, any person who wishes to testify must prefile his or her testimony and any related exhibits with the Clerk of the Board no later than July 11, 2008. See 35 Ill. Adm. Code 102.424. The "mailbox rule" (35 Ill. Adm. Code 101.300(b)(2)) does not apply to this filing—therefore, the Clerk must *receive* the prefiled material by July 11, 2008.

Prefiled testimony and exhibits that are timely filed will be entered into the record as if read, unless the hearing officer determines that it will aid public understanding to have the material read at hearing. Those who prefile must be prepared to provide oral summaries of their prefiled material at the second hearing. In addition, those who prefile are requested to bring five copies of their prefiled material to the second hearing. Others who did not prefile may testify at the second hearing only as time permits and at the discretion of the hearing officer.

Prefiled testimony may be filed through the Clerk's Office On-Line (COOL) on the Board's Web site at [www.ipcb.state.il.us](http://www.ipcb.state.il.us). Any questions about electronic filing through COOL should be directed to the Clerk's Office at (312) 814-3629. Prefiled testimony filed with the Clerk must also be served on the hearing officer and on those persons on the Service List. Before filing with the Clerk, please confirm that you have the most recent version of the Service List. The transcript of the first hearing is expected to be received by the Board's Clerk no later than June 30, 2008. The transcript will be promptly placed on COOL upon receipt.

**Questions Posed to the Agency at the First Hearing**

At the first hearing, Board staff asked questions of the Agency's witnesses, Richard P. Cobb and Dr. Thomas C. Hornshaw. Because of the number and detailed nature of the questions

prepared in advance by Board staff, it was agreed that the hearing officer would set forth those questions in a hearing officer order to be issued today, before the availability of the first hearing's transcript. It was anticipated that this measure would enable the Agency to better prepare responses, whether initial or supplemental, for the second hearing. The questions follow and refer to the Agency's prefiled testimony and *errata* filed on May 29, 2008:

1. At page 11 of Mr. Cobb's pre-filed testimony, he states that the proposed standards are based on a United States Environmental Protection Agency (USEPA) Maximum Contaminant Level (MCL) or Board MCL, a reference dose (RfD) in USEPA's Integrated Risk Information System (IRIS), USEPA Health Effects Assessment Summary Table (HEAST) RfD, Provisional Peer Reviewed Toxicity Values (PPRTV) RfD, and IRIS Slope Factor (Sfo).
  - a. Please clarify whether USEPA's MCLs are the same as the Board's MCLs. If not, please explain any differences.
  - b. The proposed standards for several inorganic and organic chemical constituents are based on RfDs and Sfos obtained from the various USEPA databases. Please explain how the Agency used the RfDs and Sfos to derive the proposed standards for various chemical constituents.
    - i. Would the Agency be able to update the tables on pages 12 and 13 of Mr. Cobb's prefiled testimony to include the appropriate RfD values used to determine the proposed standards?
    - ii. Also, would the Agency be able to submit pertinent documentation from the USEPA databases concerning the RfDs and Sfos used to derive the proposed standards?
  - c. Please clarify whether any of the proposed Class I standards are based on the RfDs from USEPA's HEAST database. If so, please submit documentation concerning the relevant RfDs/Sfos used to derive the proposed standards.
2. On page 11 of Mr. Cobb's prefiled testimony, he states that some of the proposed standards are based on Method Detection Limits (MDLs) used to derive the Part 620, Subpart F, Appendix A: Human Threshold Toxicant Advisory Concentration for Tiered Approach to Corrective Action Objectives (TACO) groundwater objectives under Part 742.
  - a. Please clarify whether all of the proposed standards based on TACO groundwater objectives are based on MDLs.
  - b. Also, please explain how MDLs were used to derive the proposed standards for which TACO groundwater objectives are listed as the basis for the standard.

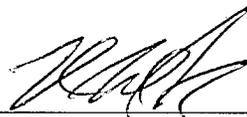
3. Also on page 11 of Mr. Cobb's prefiled testimony, he notes that carcinogens are denoted in the proposed Class I standard by an asterisk. Please clarify whether dibenzo(a,h)anthracene should be listed under Section 620.410(b) with an asterisk to indicate that it is a carcinogen.
4. The proposal lists the acronyms for several chemical constituents in Section 620.410. Please provide the chemical names for alpha-BHC, MCP, HMX and RDX.
5. On page 14 of Mr. Cobb's prefiled testimony, he states that the proposed Class II standards for inorganic constituents are based on irrigation and livestock watering from a 1972 report published by the National Academy of Sciences entitled "Water Quality Criteria." Would the Agency be able to submit a copy of the NAS report or the relevant pages of the report?
6. On page 14 of Mr. Cobb's prefiled testimony, the groundwater standards table lists the basis for the proposed Class II standard for molybdenum as the Class I standard, but it is also noted that the irrigation criterion is 10. Please explain the rationale for proposing the Class II standard for molybdenum at the same level as Class I standard instead of the irrigation criterion.
7. On page 16 of Mr. Cobb's prefiled testimony, he states that a five-fold treatment factor was used to derive a Class II standard for organic compounds with a Koc value greater than that of ethylbenzene or a Henry's Law constant greater than that of methylene chloride. Please comment on whether the same factors were considered in deriving the TACO Class II groundwater objectives, which are also being proposed as the Class II standards in the Agency's proposal.
8. Mr. Cobb lists water solubility as the basis for several Class I and Class II standards. Please provide citations to the publications from which the Agency obtained the water solubility values to develop the standards.
9. All of the proposed Class II standards, which are based on water solubility, are set at the same level as the Class I standards, except for benzo(a)pyrene, benzo(k)fluoranthene and methoxychlor. Please explain the Agency's intent.
10. According to the table on page 16 of Mr. Cobb's prefiled testimony and *errata* sheet No. 2, the proposed Class II standard for benzo(a)pyrene is 0.0016 mg/L. Further, on page 17 of Mr. Cobb's prefiled testimony, he states that the existing Class II standard should be amended to 0.0002 mg/L based on its water solubility. Please clarify which value represents the limit based on water solubility of benzo(a)pyrene, 0.0016 mg/L or 0.0002 mg/L.
11. The proposed Class II standards for explosive compounds at Section 620.420(c) are set at the same levels proposed for Class I groundwater. Please clarify whether the Koc values

or the Henry's Law constants for these compounds are below threshold values considered by the Agency for setting standards based on treatability.

12. On page 18 of Mr. Cobb's prefiled testimony, regarding the proposed changes to the Class IV groundwater quality standards pertaining to explosive contaminants, he states that the designation of a previously mined area is being proposed because it moves the compliance point from the pit of the mine to the boundary of the permitted area in order to establish off-site contamination. Please clarify whether the proposed changes are intended to apply only to a "previously mined area" as defined in Section 620.110, which limits such area to land disturbed or affected by coal mining operations prior to February 1, 1983.
13. On page 2 of Dr. Hornshaw's prefiled testimony, he refers to a USEPA memorandum dated December 5, 2003, concerning Human Health Toxicity Values in Superfund Risk Assessments. Would the Agency be able to submit a copy of the memorandum?
14. On page 3 of Dr. Hornshaw's prefiled testimony, he notes that one of the issues concerning the new hierarchy of toxicity values pertains to the retirement of PPRTV by USEPA.
  - a. Please clarify whether retirement of a PPRTV for a chemical means that USEPA has established a permanent RfD for the chemical or just dropped the value from its database.
  - b. Also, does USEPA provide any explanation for retiring a PPRTV?
15. On page 4 of Dr. Hornshaw's prefiled testimony, regarding subchronic exposures, he states that the Agency used the IRIS values with the Uncertainty Factor removed for some of the chemical constituents as the first tier when available. Please identify the chemical constituents for which this procedure was used to develop the proposed standards.
16. Also on page 4 of Dr. Hornshaw's prefiled testimony, he states that changes needed in TACO because of the new hierarchy will be addressed when the next revision to the TACO rules are proposed to the Board. Please clarify whether the TACO groundwater objective for 1,1-Dichloroethane of 0.7 mg/L, which is lower than the proposed Class I standard of 1.4 mg/L, is one of the needed revisions.
17. On page 5 of Dr. Hornshaw's prefiled testimony, he states that the Toxicity Assessment Unit decided to include in the proposal any chemical from the Bureau of Land's master list that had a toxicity value in the IRIS database. Please explain the rationale for limiting the chemicals to only those with IRIS toxicity values instead of considering the USEPA's three-tier hierarchy.

18. On page 7 of Dr. Hornshaw's prefiled testimony, he states that additional corrections are necessary for several reasons, including the revision of the selection criteria for groundwater standards for carcinogenic chemicals. Dr. Hornshaw notes that the revised criteria require a comparison of each carcinogenic constituent's health based concentration (1 in million risk level) with its corresponding analytical MDL, the greater of which is compared with the constituent's reported water solubility.
- a. Please clarify whether the analytical detection limit represents the carcinogenic constituent's MDL or its lowest Practical Quantitation Limit (PQL).
  - b. If the detection limit represents the MDL, should Part 620, Subpart F continue to refer to PQLs or should it be amended to state MDLs?

IT IS SO ORDERED.



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