BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
WATER QUALITY STANDARDS AND	)	
EFFLUENT LIMITATIONS FOR THE	)	R08-9
CHICAGO AREA WATERWAY SYSTEM	)	(Rulemaking – Water)
AND THE LOWER DES PLAINES RIVER:	)	
PROPOSED AMENDMENTS TO 35 ILL.	)	
Adm. Code Parts 301, 302, 303, and 304	)	

NOTICE OF FILING

To:

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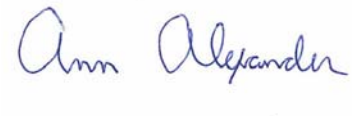
Persons on the attached service list

Please take notice that today I filed with the office of the Clerk of the Pollution Control Board **Prefiled Questions of the Natural Resources Defense Council to Charles P. Gerba**, a copy of which is hereby served on you.



_____
Ann Alexander

Dated: August 22, 2008

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CERTIFICATE OF SERVICE

I, Ann Alexander, the undersigned attorney, hereby certify that I have served the attached **Prefiled Questions of the Natural Resources Defense Council to Charles P. Gerba** on all parties of record (Service List attached), by depositing said documents in the United States Mail, postage prepaid, from 227 W. Monroe, Chicago, IL 60606, before the hour of 5:00 p.m., on this 22nd Day of August, 2008.

_____

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PREFILED QUESTIONS OF NATURAL RESOURCES DEFENSE COUNCIL TO CHARLES P. GERBA

The Natural Resources Defense Council hereby files questions to Charles P. Gerba:

1. Please describe your role in the Water Reclamation District's Microbial Risk Assessment study.

    a. How many members were on the Senior Advisory Committee?
    b. When was the Committee formed?
    c. What was its official role?
    d. Did the Committee review the study as it was ongoing? At what stages? Did you personally participate in this review on a consistent basis?
    e. Was the Committee involved in decisions concerning scope and methodology? Did you personally participate in that decisionmaking process?

2. Did you at any point disagree with decisions ultimately made by the researchers concerning methodology, scope, or any other aspect of the Risk Assessment study?

3. Regarding your statement on p. 2 of your testimony that *pseudomonas aeruginosa* was selected for study in part because it "causes recreationally associated eye, skin, and ear infections"; and on p. 3 that adenoviruses are a cause of ear nose, throat and respiratory infections – did the Risk Assessment did calculate the risks of these types of infections?

4. Regarding the statement on p. 5 of your testimony that disinfection "is warranted in situations where direct human contact in the immediate vicinity of an outfall is possible" -- do you have any basis to believe that recreation on the CAWS does not occur in the immediate vicinity of the Water Reclamation District outfalls?

5. Regarding the discussion on p. 5 of your testimony concerning disinfection byproducts – are DBPs produced as a byproduct of chlorination? Does UV disinfection create the same type and level of DBPs as chlorination?

6. What is the most common method of disinfection currently used in wastewater treatment?

7. Are you familiar with USEPA health criteria governing disinfection byproducts?

8. Have there been any studies to your knowledge of the impact of disinfection byproducts on recreational users?

9. How do you believe the risks from recreational exposure to microorganisms would compare to the risks from DBPs?

10. Do you believe that disinfection is an effective way to reduce the concentrations of microorganisms in water and wastewater?

11. Is chlorine used to disinfect swimming pools? Are you aware of research concerning the concentration of trihalomethanes in swimming pools?

12. Are you familiar with the review of an interim version of the risk assessment prepared by Tim Wade of USEPA? Did you ever have any discussions with Tim Wade regarding his concerns?

13. What was the basis for selection of gastrointestinal illness as the sole risk to be assessed? Is it your view that gastrointestinal illness is the predominant type of illness associated with waterborne pathogens?

14. Approximately how many types of waterborne human pathogens are known to be associated with sewage overall?

15. What were the bases for selection of the 8 different pathogens studied in the Risk Assessment?

16. Did the risk assessment take into account populations that are potentially more sensitive to pathogens, and may more easily become ill or suffer severe effects, such as children, pregnant women, and immunocompromised persons?

17. Did the Risk Assessment find that upstream concentrations of pathogens were generally lower than downstream concentrations during dry weather?

18. For purposes of assessing risk in the presence of disinfection, did you average the upstream and downstream sampling concentrations?

19. In assessing post-disinfection risk, did you also combine data from wet and dry weather conditions?

20. Regarding the data in Table 5-8 – Describe how you arrived at these numbers.

21. Is it possible that a waterbody that was perceived as cleaner than the CAWS might receive heavier use for activities involving substantial body contact with water?

22. Is it your understanding that waterborne pathogen levels can vary with the degree of sunlight on the water? With the turbidity of the water? With the temperature?

23. What was the basis for using dose-response data for echovirus was as a surrogate for the dose-response behavior of adenovirus?

24. How did you disinfect your sampling equipment between collections?

25. How large were the samples you collected? What volume of each of each of those samples did you typically analyze?

26. What primers were used for the calicivirus analyses? Which caliciviruses are detected using those primers?

27. The Risk Assessment states that Blue Green Monkey Kidney cells were used for the positive and negative virus control assays

28. What method was used to analyze samples for adenoviruses?

    a. What serotypes of adenoviruses are detected using the cell culture line you used?
    b. What primers were used for the PCR analysis? What serotypes of adenoviruses are detected using those primer?

29. Regarding Tables 3-5a through 3-5f of the Risk Assessment, the Risk Assessment states that these present a summary of the total enteric virus analytical results. What method was used to detect enteric viruses?

30. Regarding the statement in the Risk Assessment that reverse transcription polymerase chain reaction (RT-PCR) results were used to calculate the concentrations of noroviruses in the water samples -- how were these calculations performed?

31. Did the secondary infection rates you used in your analysis change between the interim dry weather risk assessment report completed in November, 2006 and the final wet and dry weather risk assessment?

32. Did you use a Monte Carlo simulation in quantifying risk? Please describe how that was done.