

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:

John Therriault, Clerk
 Illinois Pollution Control Board
 Agency
 James R. Thompson Center
 100 West Randolph St., Suite 11-500
 Chicago, IL 60601

Stefanie N. Diers, Assistant Counsel
 Illinois Environmental Protection
 1021 North Grand Avenue East
 P.O. Box 19276
 Springfield, IL 62794-9276

Marie Tipsord, Hearing Officer
 Illinois Pollution Control Board
 James R. Thompson Center
 100 West Randolph St, Suite 11-500
 Chicago, Il 60601

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 Keith Tolson**, a copy of which is hereby served on you.



Ann Alexander

Dated: August 22, 2008

Ann Alexander
 Senior Attorney, Midwest Program
 Natural Resources Defense Council
 101 North Wacker Dr., Ste. 609
 Chicago, IL 60606
 312-780-7427
 312-663-9920 (fax)
AAlexander@nrdc.org

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 Keith Tolson** 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.



Ann Alexander, Natural Resources Defense Council

Service List

Richard J. Kissel and Roy M. Harsch
Drinker, Biddle, Gardner, Carton
191 N. Wacker Drive, Suite 3700
Chicago, IL 60606-1698

Bernard Sawyer and Thomas Grant
Metropolitan Water Reclamation District
6001 West Pershing Road
Cicero, IL 60650-4112

Deborah J. Williams and Stefanie N. Diers
Assistant Counsel, Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

James L. Daugherty, District Manager
Thorn Creek Basin Sanitary District
700 West End Avenue
Chicago Heights, IL 60411

Kevin G. Desharnais, Thomas W. Diamond
and Thomas V. Skinner
Mayer, Brown LLP
71 South Wacker Drive
Chicago, IL 60606-4637

Tracy Elzemeyer, General Counsel
American Water Company Central Region
727 Craig Road
St. Louis, MO 63141

Robert VanGyseghem
City of Geneva
1800 South Street
Geneva, IL 60134-2203

Claire Manning
Brown, Hay & Stephens LLP
700 First Mercantile Building
205 South Fifth St., P.O. Box 2459
Springfield, IL 62705-2459

Matthew J. Dunn, Chief
Office of the Attorney General
Environmental Bureau North
69 West Washington, Suite 1800
Chicago, IL 60602

Katherine D. Hodge and Monica T. Rios
Hodge Dwyer Zeman
3150 Roland Avenue
P.O. Box 5776
Springfield, IL 62705-5776

Charles W. Wesselhoft and James T. Harrington
Ross & Hardies
150 North Michigan Avenue
Suite 2500
Chicago, IL 60601-7567

Margaret P. Howard
Hedinger Law Office
2601 South Fifth Street
Springfield, IL 62703

Jerry Paulsen and Cindy Skrukud
McHenry County Defenders
132 Cass Street
Woodstock, IL 60098

Keith I. Harley and Elizabeth Schenkier
Chicago Legal Clinic, Inc.
205 West Monroe, 4th Floor
Chicago, IL 60606

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William Richardson, Chief Legal Counsel
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702

Fred L. Hubbard
Attorney at Law
16 West Madison
P.O. Box 12
Danville, IL 61834

Lisa Frede
Chemical Industry Council of Illinois
2250 E. Devon Avenue
Suite 239
Des Plaines, IL 60018-4509

W.C. Blanton
Blackwell Sanders LLP
4801 Main Street
Suite 1000
Kansas City, MO 64112

Sharon Neal
Commonwealth Edison Company
125 South Clark Street
Chicago, IL 60603

Traci Barkley
Prairie Rivers Networks
1902 Fox Drive
Suite 6
Champaign, IL 61820

James Huff, Vice-President
Huff & Huff, Inc.
915 Harger Road, Suite 330
Oak Brook, IL 60523

Georgie Vlahos
Naval Training Center
2601A Paul Jones Street
Great Lakes, IL 60088-2845

Cathy Hudzik
City of Chicago, Mayor's Office of Intergovernmental Affairs
121 North LaSalle Street
City Hall – Room 406
Chicago, IL 60602

Dennis L. Duffield
Director of Public Works & Utilities
City of Joliet, Department of Public Works & Utilities
921 E. Washington Street
Joliet, IL 60431

Irwin Polls
Ecological Monitoring and Assessment
3206 Maple Leaf Drive
Glenview, IL 60025

Ann Alexander, Senior Attorney
Natural Resources Defense Council
101 North Wacker Drive, Suite 609
Chicago, IL 60606

Marc Miller, Senior Policy Advisor
Jamie S. Caston, Policy Advisor
Office of Lt. Governor Pat Quinn
Room 414 State House
Springfield, IL 62706

Beth Steinhorn
2021 Timberbrook
Springfield, IL 62702

Frederick D. Keady, P.E., President
Vermillion Coal Company
1979 Johns Drive
Glenview, IL 60025

Dr. Thomas J. Murphy
DePaul University
2325 N. Clifton Street
Chicago, IL 60614

Electronic Filing - Received, Clerk's Office, August 22, 2008

Susan M. Franzetti
Nijman Franzetti LLP
10 S. LaSalle Street, Suite 3600
Chicago, IL 60603

Vicky McKinley
Evanston Environmental Board
223 Grey Avenue
Evanston, IL 60202

Albert Ettinger, Senior Staff Attorney, and Jessica Dexter
Environmental Law and Policy Center
35 E. Wacker Drive, Suite 1300
Chicago, IL 60601

Tom Muth
Fox Metro Water Reclamation District
682 State Route 31
Oswego, IL 60543

Jack Darin
Sierra Club, Illinois Chapter
70 E. Lake Street, Suite 1500
Chicago, IL 60601-7447

Kay Anderson
American Bottoms RWTF
One American Bottoms Road
Sauget, IL 62201

Kristy A.N. Bulleit and Brent Fewell
Hunton & Williams LLC
1900 K. Street, NW
Washington, DC 20006

Jeffrey C. Fort and Ariel Tescher
Sonnenschein Nath & Rosenthal LLP
7800 Sears Tower
233 S. Wacker drive
Chicago, IL 60606-6404

Marie Tipsord, Hearing Officer
John Therriault, Assistant Clerk
Illinois Pollution Control Board
100 West Randolph, Suite 11-500
Chicago, IL 60601-7447

Stacy Myers-Glen
Openlands
25 East Washington, Suite 1650
Chicago, IL 60602

Susan Hedman and Andrew Armstrong, Environmental Counsel
Environmental Bureau
Office of the Illinois Attorney General
69 West Washington, Suite 1800
Chicago, IL 60602

Kenneth W. Liss
Andrews Environmental Engineering
3300 Ginger Creek Drive
Springfield, IL 62711

Bob Carter
Bloomington Normal Water Reclamation District
P.O. Box 3307
Bloomington, IL 61702-3307

Ronald M. Hill and Margaret T. Conway
Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street, Room 301
Chicago, IL 60611

Frederic P. Andes, Carolyn S. Hesse and David T. Ballard
Barnes & Thornburg LLP
One North Wacker Drive, Suite 4400
Chicago, IL 60606

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
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WATER QUALITY STANDARDS AND)
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CHICAGO AREA WATERWAY SYSTEM) (Rulemaking – Water)
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Adm. Code Parts 301, 302, 303, and 304)

**PREFILED QUESTIONS OF NATURAL RESOURCES
DEFENSE COUNCIL TO KEITH TOLSON**

The Natural Resources Defense Council hereby files questions to Keith Tolson:

1. Please describe the role of the following identified contributors to the Risk Assessment, including the approximate number of hours contributed: yourself, Chriso Petropoulou, Patterson Environmental Consultants (PEC); Cecil Lue-Hing & Associates (CLHA); Dr. Charles Gerba of the University of Arizona (UA); Hoosier Microbiological Laboratory, Inc. (HML); and Clancy Environmental Consultants, Inc. (CEC)
2. Do you have any formal training in microbiology?
3. 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?
4. 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?
5. Approximately how many types of waterborne human pathogens are known to be associated with sewage overall?
6. What were the bases for selection of the 8 different pathogens studied in the Risk Assessment?
7. 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?
8. Did the Risk Assessment find that upstream concentrations of pathogens were generally lower than downstream concentrations during dry weather?

9. For purposes of assessing risk in the presence of disinfection, did you average the upstream and downstream sampling concentrations?
10. In assessing post-disinfection risk, did you also combine data from wet and dry weather conditions?
11. Regarding your statement at p. 6 of your testimony that “disinfection of the effluent outfall was predicted to result in a decrease in effluent pathogen loads from the water reclamation plants but have little effect on overall pathogen concentrations in the waterway.” Does that statement concern wet weather conditions? Does it apply to specifically dry weather conditions?
12. Regarding the data in Table 5-8 – Describe how you arrived at these numbers.
13. Regarding the statement at p. 5 of your testimony that the “UAA study was the primary source for exposure use data for the CAWS” -- 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?
14. 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?
15. What was the basis for using dose-response data for echovirus as a surrogate for the dose-response behavior of adenovirus?
16. How did you disinfect your sampling equipment between collections?
17. How large were the samples you collected for virus analysis? What volume of each of those samples was typically analyzed for each of the viruses?
18. What primers were used for the calicivirus analyses? Which caliciviruses are detected using those primers?
19. The Risk Assessment states that Blue Green Monkey Kidney cells were used for the positive and negative virus control assays
20. 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 primers?
- 21. 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?
- 22. 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?
- 23. 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?
- 24. Did you use a Monte Carlo simulation in quantifying risk? Please describe how that was done.