

### BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

D NUV 29 2004 STATE OF ILLINOIS

IN THE MATTER OF:	Pollution Control Board
REVISIONS TO RADIUM QUALITY STANDARDS: PROPOSED NEW 35 ILL. ADM CODE 302.307 and AMENDMENTS TO 35 ILL. ADM. CODE 302.207 and 302.525	) R 04-21 M ) (Rulemaking –Water) )
NOT	CICE
TO: Dorothy Gunn, Clerk Illinois Pollution Control Board James R. Thompson Center 100 W. Randolph Street, Suite 11-500	

SEE ATTACHED SERVICE LIST

Chicago, Illinois 60601

PLEASE TAKE NOTICE that I have filed with the Office of the Pollution Control Board the <u>AGENCY'S RESPONSE TO DOCUMENTS REQUESTED AT THE FOURTH HEARING</u> on behalf of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

Date: November 23, 2004

ILLINOIS ENVIRONMENTAL

PROTECTION AGENCY

Stefanie N. Diers Assistant Counsel

Division of Legal Counsel

1021 North Grand Avenue East P.O. Box 19276 Spring field, IL 62794-9276 217/782-5544

THIS FILING IS SUBMITTED ON RECYCLED PAPER

RECEIVED CLERK'S OFFICE

#### BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

NOV 2 9 2004

REVISIONS TO RADIUM WATER	)	STATE OF ILLINOIS
QUALITY STANDARDS: PROPOSED	)	STATE OF ILLINOIS Pollution Control Board
NEW 35 ILL.ADM.CODE 302.307	)	R04-021
AND AMENDMENTS TO 35 ILL.ADM.	) ,	Rulemaking – Water
CODE 302.207 AND 302.525	)	

# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S RESPONSE TO DOCUMENTS REQUESTED AT THE FOURTH HEARING

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by and through one of its attorneys, Stefanie N. Diers, and hereby respectfully submits to the Illinois Pollution Control Board ("Board") the documents requested or offered to be submitted by the Illinois EPA at the October 21 and 22, 2004 public hearing in the above captioned docket. A summary of the documents submitted follows:

**ATTACHMENT A:** 

Sign-in sheet from March 12, 2003 stakeholder meeting on

Radium Water Quality Standards proposal.

**ATTACHMENT B:** 

Lists of generators of radium containing sludge. Three tables are provided in Attachment B regarding Publicly Owned Treatment Works that have permits to land apply sludge with tributary drinking water supplies that have violated the Maximum Contaminant Level ("MCL") for radium 226 and 228 combined. The first table lists the generators and their land application permit numbers. The second table lists the levels of radium (in picoCuries per gram) for those generators that have responded to the Agency's request for information. The third table provides a list of receiving streams for each generator's POTW discharge.

ATTACHMENT C:

Table providing list of radium water quality standards in other States that were researched before and during this

proceeding.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Stefanie N

Stefanie N. Diers Assistant Counsel

Division of Legal Counsel

November 23, 2004

1021 N. Grand Ave. E P.O. Box 19276 Springfield, Illinois 62794-9276 ATTACHMENT

A

### STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357

Subject Radium WOS Meeting	ADM 39 054-002
Data Attendure	
Reviewed by	Date 3-12-03

Reviewed by	D	ate 3-12-05
Name	Affiliation	E-mail
Beth Wentzel	Prairie, River Network	brentzel a prairre rivers . org
Jean Flemma	4	Iflemma prairienters
Abdul Khalique	Water Recl. Dish of Greater Chicago	abdul. Khalique am wrd. 089
Wayne Nelson	122. Rural Water Assn.	1
Jerry Kihn	IL EPA/DPWS	Jern, Kihn@ epa state. il. u
AhreonGrady	IL EPA / Standards	alyson, Grady Coepa, state, il, us
Debbie Williams	IL EPA/DLC	deborah. Williams@epa.state.il.u
Convictorson	ILEPA/DLC	CONNIE. TONSOR Cepa. State. il:US
BRENDA CARTER	Illinois Environmental Regulatory Group (IERG)	bearter@ierg.org
Blaine Kinsley	IEPA DWPC Permit Section	blane. Kinsley@epa.state.il.us

ATTACHMENT B

### Permitted Facilities With Radium Source Water

Facility Name	State Permit Number
Alexis	2002-SC-1812
Bartlett	2001-SC-4121
Bensenville	2000-SC-1163
Bloomingdale	1999-SC-4111
Braidwood	2003-SC-4965
Cary	2000-SC-0364
Channahon*	2000-SC-1151
Chillicothe SD	2001-SC-3896
Cuba	2002-SC-1660
DeKalb SD	2002-SC-0508
DePue	1999-SC-4417
Dixon	2002-SC-0484
Elmhurst	2001-SC-2929
Fox Lake	2002-SC-0997
Fox Metro WRD	2001-SC-3020
Fulton	2004-SC-5493
Galena	1999-SC-3056
Geneva*	2002-SC-1376
Genoa	2002-SC-5038
Hanna City SD	2002-SC-1323
Hanover Park	2003-SC-2492
Hinckley	2003-SC-3511
Huntley East*	2003-SC-3365
Huntley West*	2003-SC-3365
Joliet East*	2001-SC-2708
Joliet West*	2001-SC-2708
Kewanee	2002-SC-0657

Facility Name	State Permit Number
Knoxville	1997-SC-5112
Lake CoDes Plaines	. 2000-SC-5387
Lake CoMill Creek	2000-SC-5387
Lake CoNew Century	2000-SC-5387
Lake In The Hills SD*	1999-SC-3964
Lockport	2000-SC-0026
Marseilles	2000-SC-1566
Mendota	2002-SC-1779
Minonk	2003-SC-4679
Minooka	2003-SC-5331
Monmouth Main	2000-SC-1883
Monmouth North	2000-SC-1883
Mooseheart Child City	2004-SC-5383
Morris	2003-SC-5410
Mount Carroll	2001-SC-5146
Mundelein	2001-SC-4199
Ottawa	1999-SC-4578
Plainfield	2000-SC-0243
Romeoville	2000-SC-2511
Roselle Botterman	2001-SC-2950
Roselle Devlin STP	2001-SC-2950
Sandwich	2000-SC-1022
Seneca	2001-SC-4538
South Beloit	1999-SC-5273
St. Charles	1999-SC-5058
Sycamore North	2000-SC-2341
Toluca	1999-SC-3163
Toulon	2002-SC-0658
Wauconda	2003-SC-4611

Facility Name		State Permit Number	
Wilmington		2000-SC-2094	
Wyoming		2002-SC-0084	
Yates City		2002-SC-1710	

## Radium Concentrations In Sludge

all concentrations are in pCi/g

Generator	Radium 226	Radium 228	Total Radium
Alexis			
Bartlett	1.7	2.5	4.2
Bensenville			
Bloomingdale			
Braidwood			
Cary			
Channahon*	21	11	32
Chillicothe SD			
Cuba			
DeKalb SD	13.5	13.7	27.2
DePue			
Dixon			
Elmhurst			
Fox Lake	1.2	1.8	3
Fox Metro WRD	•		
Fulton	7.9	3.5	11.4
Galena	5.2	2.7	7.9
Geneva*	4.9	10.2	15.1
Genoa	4.2	3.2	7.4
Hanna City SD			
Hanover Park	0.6	0.7	1.3
Hinckley			
Huntley East*	18.6	17.2	35.8
Huntley West*	23.5	18.8	42.3
Joliet East*	8.8	9.9	18.7
Joliet West*	18.3	28.9	47.2

Generator	Radium 226	Radium 228	Total Radium
Kewanee -	21	11.6	31.6
Knoxville	5.2	20	7.2
Lake CoDes Plaines	4.4 ,	6.4	10.8
Lake CoMill Creek	6	7.7	13.7
Lake CoNew Century	1	1.2	2.2
Lake In The Hills SD*	4.5	8.2	12.7
Lockport			0
Marseilles	1.7	2.7	4.4
Mendota			
Minonk			
Minooka			
Monmouth Main	. 10	6.3	16.3
Monmouth North	5	2.9	7.9
Mooseheart Child City			
Morris			
Mount Carroll			
Mundelein	1	1	2
Ottawa	5.6	4	9.6
Plainfield			
Romeoville	11.2	7.6	18.8
Roselle Botterman	0	0 .	0
Roselle Devlin STP			
Sandwich	6.3	3.9	10.2
Seneca	12.7	9.3	22
South Beloit	1.6	3.6	5.2
St. Charles	2.7	4.8	7.5
Sycamore North			
Toluca			
Toulon			. 0

Generator	Radium 226	Radium 228	Total Radium
Wauconda -			
Wilmington			
Wyoming			
Yates City	28	5.1	33.1

# Streams Receiving Effluent Containing Radium

Generator	NPDES Permit	Receiving Stream	,
			•
Alexis	IL0021211	Unnamed Tributary of Middle Henderson Creek	
Bartlett	IL0027618	West Branch DuPage River	
Bensenville	IL0021849	Addison Creek	
Bloomingdale	IL0021130	East Branch DuPage River ,	
Braidwood	IL0054992	Unnamed tributary to Claypool Ditch	
Cary	IL0020516	Fox River	
Channahon*	IL0069906	Backwater area of the Des Plaines River	
Chillicothe SD	IL23159	Illinois River	
Cuba	IL0020311	Unnamed tributary of Big Creek	
DeKalb SD	IL0023027	South Branch Kishwaukee River	
DePue	IL0023523	Lake DePue	
Dixon	IL0026450	Rock River	
Elmhurst	IL0028746	Salt Creek	
Fox Lake	IL0020958	Fox River	
Fox Metro WRD	IL0020818	Fox River	
Fulton	IL0028860	Mississippi River	
Galena	IL0020249	Galena River	

Generator	Λ	NPDES Permit	Receiving Stream

Geneva*	IL0020087	Fox River
Genoa	IL0055182	South Branch Kishwaukee River
Hanna City SD	IL0029106	Johnson Run Tributary to Kickapoo Creek
Hanover Park	IL0034479 ,	West Branch DuPage River
Hinckley	IL0050628	Little Rock Creek
Huntley East*	IL0029238	Huntley Branch to South Branch Kishwaukee River
Huntley West*	IL0070688	South Branch Kishwaukee River
Joliet East*	IL0022519	Hickory Creek at Confluence with Des Plaines River
Joliet West*	IL0033553	Des Plaines River
Kewanee	IL0029343	West Fork Spoon River
Knoxville	IL0022209	Unnamed Tributary to Haw Creek
Lake CoDes Plaines	IL0022055	Aptakisic Creek tributary to Des Plaines River
Lake CoMill Creek	IL0020478	Des Plaines River
Lake CoNew Century	IL0022071	Des Plaines River
Lake In The Hills SD*	IL0021733	Crystal Creek
Lockport	IL0029611	Deep Run Creek
Marseilles	IL0021059	Illinois River
Mendota	IL0023221	Mendota Creek
Minonk	IL0037818	Long Point Creek tributary to Vermilion River
Minooka	IL0055913	DuPage River

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Monmouth Main	IL0021253	Unnamed Tributary of Markham Creek
Monmouth North	IL0036218	Unnamed Tributary of Markham Creek
Mooseheart Child City	IL0027260	Fox River
Morris	IL0021113	Illinois River
Mount Carroll	IL0020176	Carroll Creek
Mundelein	IL0022501	Des Plaines River
Ottawa	IL0030384	Illinois River
Plainfield	IL0024373	DuPage River
Romeoville	IL0030205	Des Plaines River
Roselle Botterman	IL0048721	West Branch DuPage River
Roselle Devlin STP	IL0030813	Springbrook Creek tributary to Salt Creek
Sandwich	IL0030970	Harvey Creek
Seneca	IL0022446	Illinois River
South Beloit	IL0021156	Rock River
St. Charles	IL0022705 ,	Fox River
Sycamore North	IL0031291	East Branch of South Fork Kishwaukee River
Toluca	IL0021695	North Branch Crow Creek

IL0025054

IL0020109

IL0026025

NPDES Permit

Receiving Stream

Indian Creek

Fiddle Creek

Kankakee River

Toulon

Wauconda

Wilmington

Generator

Generator .	NPDES Permit	Receiving Stream	÷
Wyoming	IL0026336	Unnamed tributary ro Spoon River	
Yates City	IL0020346	Unnamed tributary fo French Creek	

ATTACHMENT

### Surface Water Quality Standards for Radium

State	pCi/L radium	Point of Applicability	Contact	Comments
Arizona	5	Waters Designated as Domestic Water Supply Use Other waters have no standard	Website	A list of Arizona waters indicates that relatively few water bodies are designated as "Domestic Water Supply" use
California	Narrative	all waters	Bill Reeves CA WQS Unit	No numeric standard. Narrative say "Radionuclides shall not cause impacts to humans, aquatic life or wildlife"
Florida	5	All waters	Nancy Ross FDEP	Rule adopted in 1978 under the theory that if human health is protected, all uses are protected
Illinois	1	All waters except Secondary Contact and Indigenous Aquatic Life Use waters	Bob Mosher IEPA	·
lowa	5	Public Water Supply Intakes Other waters have no standard	Connie Choi Iowa DNR	Identical to IEPA proposed standard
Michigan	No WQS		Sylvia Heaton MDEQ	MI regulations refer to NRC and USEPA standards as applying in surface waters. There are no such standards
Ohio	No WQS		Bob Heitzman OEPA	The water quality standard was removed. Another state agency controls radionuclides
Oklahoma	5	Public Water Supply Intakes Other waters have no standard	Derek Smithee ODNR	Identical to IEPA proposed standard
ORSANCC	4	Public Water Supplies (entire Ohio River)		The entire Ohio River is considered a potential public water supply
Utah	5	Domestic Water Supplies Other waters have no standard	Website	An alpha-emitter standard of 15 pCi/L is present for wildlife protection
Wisconsin	No WQS		Bob Masnado WDNR	No reference to other agency's standard
Colorado	5	All waters	Website	
Missouri	5	All waters	John Ford	
Indiana	3	Public Water Supply Intakes Othere waters have no standard	Dennis Clark IDEM	
Minnesota	No WQS		MPCA Website	Like Ohio, the MN water quality standards point toward another state agency as having authority

STATE OF ILLINOIS	)
	) SS.
COUNTY OF SANGAMON	)

### **PROOF OF SERVICE**

I, the undersigned, on oath state that I have served the attached Agency's Responses to Documents Requested at the Fourth Hearing, upon the person to whom it is directed, by placing it in an envelope addressed to:

TO: Dorothy Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601

### SEE ATTACHED SERVICE LIST

and mailing it by First Class Mail from Springfield, Illinois on November 23, 2004, with sufficient postage affixed.

SUBSCRIBED AND SWORN TO BEFORE ME

this 23<sup>rd</sup> day of November, 2004

Notary Public

OFFICIAL SEAL
BRENDA BOEHNER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 11-14-2005

Lynthio Sims

### **R 04-21 SERVICE LIST**

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