BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

NATURAL RESOURCES DEFENSE COUNCIL	)	
PRAIRIE RIVERS NETWORK, and	)	
SIERRA CLUB,	)	
	)	
Petitioners,	)	
	)	
v.	)	
	)	**PCB 12 -**
	)	**(APPEAL FROM IEPA**
	)	**DECISION GRANTING**
	)	**NPDES PERMIT)**
ILLINOIS ENVIRONMENTAL PROTECTION	)	
AGENCY and DYNEGY MIDWEST	)	
GENERATION, INC.,	)	
	)	
Respondents	)	

To:

John Therriault, Clerk
Illinois Pollution Control Board
James R. Thompson Center
Suite 11-500
100 West Randolph
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 my **Petition for Review of a Decision by the Illinois Environmental Protection Agency** on behalf of the Natural Resources Defense Council, Prairie Rivers Network, and Sierra Club, a copy of which is hereby served on you.

By: Ann Alexander
Ann Alexander, Natural Resources Defense Council

Dated: October 18, 2012

Ann Alexander
Meleah Geertsma
Natural Resources Defense Council
2 North Riverside Plaza, Suite 2250
Chicago, Illinois 60606
312-651-7905 and -7904
312-234-9633 (fax)
Counsel to Petitioners Natural Resources Defense Council,
Prairie Rivers Network, and Sierra Club, Inc.

SERVICE LIST

Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Dynegy Midwest Generation, Inc.
604 Pierce Blvd.
O'Fallon, IL 62269

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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AGENCY and DYNEGY MIDWEST	)	
GENERATION, INC.,	)	
	)	
Respondents	)	

PETITION FOR REVIEW OF A DECISION BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Pursuant to 415 ILCS 5/40(e)(1) and 35 Ill. Adm. Code Section 105, the Natural Resources Defense Council ("NRDC"), Prairie Rivers Network ("PRN"), and the Sierra Club (collectively, "Petitioners") hereby petition for review of the decision of the Illinois Environmental Protection Agency ("IEPA") to grant a National Pollutant Discharge Elimination System ("NPDES") permit (Permit No. IL0001571) to Dynegy Midwest Generation, Inc.'s ("Dynegy") Havana Power Station ("Facility") for the discharge of pollutants from one of its coal ash ponds into the Illinois River.

In support of their petition, Petitioners state:

Decision Appealed

1. The Permit was issued by IEPA on September 14, 2012. A copy of the Permit is attached as Ex. 1.

Petitioners

2. NRDC, a not-for-profit corporation organized and existing under the laws of the State of New York, is a national environmental organization with more than 400,000 members. More than 16,840 of these members live in the State of Illinois, and more than 340 of these members live in counties bordering the Illinois River downstream of the Facility. NRDC is dedicated to the preservation, protection, and defense of the environment, its wildlife and natural resources, and actively supports effective enforcement of the CWA on behalf of its members. Dynegy Midwest Generation, Inc. Havana Power Station Post-Hearing Comments dated December 8, 2011 ("PRN Comments"), attached as Ex. 2, at 2.)

3. PRN is an Illinois not-for-profit corporation concerned with river conservation and water quality issues in Illinois, with more than 700 members statewide. It works with concerned citizens throughout the state to address those issues that impact Illinois streams. PRN members live in the Illinois River watershed, and are concerned with pollution that would affect their ability to enjoy recreational activities dependent on the ecological health of the Illinois River including fishing, boating, canoeing, nature study and hiking. PRN Comments at 2.

4. The Sierra Club is a California not-for-profit corporation, which has among its purposes to protect and restore the quality of the natural and human environment The Sierra Club has over 20,400 members residing in the State of Illinois and has members who are adversely affected by any degradation of the Illinois River that could affect the uses of those waters. Sierra Club members live in the Illinois River watershed and many Sierra Club members are concerned with pollution that would affect their ability to enjoy recreation activities dependent on the

ecological health of the Illinois River including fishing, boating, canoeing, nature study and hiking. PRN Comments at 2.

5. NRDC, PRN, and Sierra Club submitted comments to IEPA concerning the draft Permit. *See* PRN Comments; Comments of Natural Resources Defense Council, Prairie Rivers Network, and Sierra Club – Illinois Chapter Concerning The Draft NPDES Permit No. Il0001571 for the Dynegy Midwest Generation Havana Power Station dated December 8, 2011 ("NRDC Comments"), attached as Ex. 3. In addition, PRN and Sierra Club members appeared at the public hearing concerning the draft Permit held November 7, 2011. *See* Transcript of Hearing, attached as Ex. 4. At the hearing, PRN submitted a written statement. *See* Public Comment in Regards to NPDES Permit No. IL0001571 for the Havana Power Station on behalf of Traci Barkley, Water Resources Scientist for Prairie Rivers Network dated November 7, 2011 ("Public Hearing Statement"), attached as Ex. 5. PRN also submitted initial comments on the draft Permit dated June 10, 2011 ("PRN Initial Comments"), attached as Ex. 6.

6. Increased loading of pollutants to the Illinois River from the Facility would cause harm to members of all three of the Petitioner organizations, by interfering with their recreational use and enjoyment of the River.

Background

7. The Illinois River, into which the Facility discharges, is an important system for the many riverside communities that rely on clean water for their small businesses and tourist attractions, for the commercial fishermen that draw their income and livelihood from healthy fish, and for the residents that rely on clean water and a healthy ecosystem for recreation and aesthetic enjoyment. The Illinois River Valley is also a rich ecosystem for many types of wildlife. PRN Comments at 3.

8. The Illinois River is currently listed as impaired for fish consumption uses due to high levels of mercury on the Illinois Integrated Water Quality Report and Illinois Section 303(d) List. PRN Comments at 6.

9. Mercury accumulates in the environment, and especially in fish tissue, over time. Additional mercury discharged to the Illinois River will accumulate in fish there, posing further risk to those consuming fish flesh. Additional mercury discharges will also result in a buildup of mercury sorbed to sediment particles that have settled to the river bottom. When bottom sediments are stirred, particles containing some degree of attached pollutants are released into the water column where they are available for uptake by fish. PRN Comments at 10.

10. Outfall 005 at the Facility discharges to the Illinois River from the East Ash Pond. Subsequent to its submittal of a NPDES permit renewal application in October 2006, Dynegy supplemented its application in 2007 with requests, *inter alia*, to increase the discharge of waste to the East Ash Pond in connection with new air pollution control equipment it planned to install. This new equipment included, *inter alia*, a spray dryer absorber ("SDA") scrubber system, which would generate an estimated stream of 25,000 tons of residue annually; and an activated carbon injection ("ACI") system, which would generate an estimated stream of up to 2.6 tons of activated carbon per day, including up to .6 pounds of mercury per day.

11. In July 2010, Dynegy submitted antidegradation analysis to IEPA for, *inter alia*, increased discharges associated with the SDA and ACI. With respect to mercury from the ACI waste, the antidegradation analysis relied solely on a study by the Electric Power Research Institute ("EPRI"), an organization representing industry, which had concluded that such was was "unlikely" to be discharged at "levels of environmental concern." Dynegy did not submit,

and IEPA did not perform, analysis to determine the best available technology ("BAT") for control of either SDA or ACI waste streams.

12. The PRN Comments, NRDC Comments, submitted following the public hearing, were each signed onto by all of the Petitioner organizations. These comments cited to United States Environmental Protection Agency ("USEPA") analysis concluding that CCR impoundments (such as the East Ash Pond) are not the most effective alternative for addressing pollution control equipment residue, and are not likely to represent BAT for scrubber wastewater. Among these was a 2010 memorandum from James Hanlon of the USEPA Office of Water ("Hanlon Memo"), which described alternative control technologies assessed to be more effective at removing metals from air pollution control wastewater. NRDC Comments Attachment A.

Statement of Issues Raised

13. In the PRN Comments and the NRDC Comments Petitioners raised legal and scientific issues regarding flaws in the draft permit and in IEPA's consideration of it, including, *inter alia*, the following:

a. Dynegy failed to adequately address in its Permit application, and IEPA failed to adequately consider, the elements of antidegradation analysis required in 35 Ill. Adm. Code § 302.105 to demonstrate any necessity of increased loading of pollutants to the Illinois River in connection with operation of the ACI and SDA equipment at the Facility. Increased loading to the Illinois River will result from such operation, as acknowledged by Dynegy and IEPA in performing antidegradation analysis in connection with it. However, the analysis was inadequate in that it failed to (i) identify and quantify the

proposed load increases for the applicable parameters and of the potential impacts of the proposed activity on the affected waters, or (ii) assess the cost and feasibility of alternatives to proposed increases in pollutant loading, including additional treatment levels, discharge to different locations, and pollution prevention measures. *See* NRDC Comments at 2-12; PRN Comments at 4-8, 10-15.

b. Dynegy failed to provide in the permit application a sufficient basis for IEPA to establish numeric discharge limits for Outfall 005 based on a determination of best available technology ("BAT"), and IEPA failed to use its best professional judgment to impose such limits, as required by 33 U.S.C. § 1311 and 40 C.F.R. § 125.3(a), 40 C.F.R. § 122.21(e), and 35 Ill. Adm. Code 309.141(a) (IEPA required to ensure compliance with CWA § 301). *See* NRDC Comments at 14-20.

c. Dynegy failed to provide in the permit application a sufficient basis for IEPA to establish effluent limits for mercury necessary to achieve water quality standards in the Illinois River receiving water, and IEPA failed to establish such limits, as required by 40 C.F.R. § 122.44(d) (1) and 35 Ill.Admin.Code 309.141(d).

14. The final permit issued on September 14, 2012, did not remedy any of the three legal shortcomings of the Permit described in the preceding paragraph. No additional analysis was provided to support a lawful antidegradation determination, no numeric discharge standards based on BPJ BAT were provided, and no water quality-based effluent limits ("WQBELs") were established to prevent further impairment of the Illinois River receiving waters from discharges

of mercury. The Permit therefore remains in violation of the substantive requirements described in the preceding paragraph. The only pertinent change to the language of the permit was to extend mercury monitoring requirements through the life of the permit, which does not result in compliance with such requirements.

15. The responsiveness summary ("RS") prepared by IEPA in connection with the final permit, attached as Ex. 7, did not adequately respond concerning the issues raised in Petitioners' comments.

16. The statements in the RS concerning antidegradation were insufficient and/or substantively non-responsive for the following reasons:

a. The RS states that antidegradation of the existing CCR handling system is not necessary because it is an "existing" system, and antidegradation analysis would only be required "[i]f the plant was starting anew or was proposing a major change in ash handling." RS at 8. This is not a correct statement of the law. 35 Ill. Adm. Code § 302.105(a)(4) requires antidegradation analysis to be conducted in connection with "*Any* proposed increase in pollutant loading requiring an NPDES permit," without the limitation to new facilities referenced by IEPA. *Id.* (emphasis added).

b. The RS states that the EPRI study supports a conclusion that "almost" all of the mercury from the ACI will remain in the Facility's ash pond; and, similarly, that any new and increased discharge associated with the ACI and SDA will be "minimal." RS at 8-9, 13. This response is inadequate and/or non-responsive because, *inter alia*, (i) it is inconsistent with law, as "almost" preventing an increase in mercury loading, and allowing only a "minimal" increase, does not

obviate the requirement for antidegradation analysis of *any* increase in loading; (ii) IEPA did not respond to Petitioners' Comments demonstrating that air pollution control equipment residue contains polluting constituents in addition to mercury (NRDC Comments at 6-7), (iii) IEPA did not respond to Petitioners' Comments concerning the facially non-conclusive nature of the EPRI study and other flaws (NRDC Comments at 8); and (iv) IEPA did not respond to Petitioners' Comments concerning contrary conclusions reached by the USEPA concerning potential discharge of air pollution control residue from CCR impoundments, and available alternatives to minimize such discharge (NRDC Comments at 6-7, 11-12).

c. The RS states that "[t]he complexity of existing and future inputs to the ash ponds, and the treatment provided in the ash ponds, precludes more detailed conclusions regarding final effluent concentration"; and that "[e]ffluent monitoring requirements in the permit will allow Illinois EPA to track any changes in effluent concentrations and verify the current conclusion that no significant difference will result from the wastewater management changes noted." RS at 9. This response is inadequate and/or non-responsive because, *inter alia*, (i) the CWA and 35 Ill. Adm. Code § 302.105 do not allow the exception claimed by IEPA for discharges involving "complexity," and (ii) the Permit does not require monitoring for all of the substances whose loading may increase as a result the ACI installation.

d. The RS states that "[a]ny sorbent that does not discharge will settle in the Illinois River . . . where it can be transformed into methyl mercury by bacteria," and

would "remain in the sediments or become methylated." This response is inadequate and/or non-responsive because, *inter alia*, it does not explain how or why the transformation to methyl mercury would alleviate the increased loading to the Illinois River; and, in fact, methyl mercury is the most toxic form of mercury, and the form that accumulates in fish tissue.

17. The RS contained no reference or response to issues raised in the comments concerning IEPA's failure to determine numeric technology-based limits based on BAT as determined by BPJ, or Dynegy's failure to provide information in the application to support such a determination.

18. The RS stated that the additional pollutant loading from the modifications covered by the permit is "minimal," for the reason described in ¶ 16.b. herein, and that "it is predicted that increases in pollutant loading will not result in detectable increases in river concentrations of these parameters." RS at 7. This response is inadequate because, *inter alia*, (i) the basis for IEPA's conclusion that the discharge will be "minimal" is unsupported, for the reasons described in ¶ 16.b. herein, and (ii) IEPA has not presented the analysis required under 35 Ill.Admin.Code § 309.143 to determine whether the authorized discharge has reasonable potential to cause or contribute to an excursion above applicable water quality standards, or the verification required under 35 Ill.Admin. Code § 309.142 that the discharge will not violate such standards.

19. In addition to the substantive deficiencies of the Permit, IEPA's failure to respond to significant comments, as described in ¶¶ 16-18 herein, violated the requirement of 35 Ill. Adm. Code § 166.192 concerning the required contents of a responsiveness summary.

WHEREFORE, Petitioners ask that the Pollution Control Board set aside the Permit issued to the Facility as not sufficiently protective of the environment and not in accord with law,

and direct that the Agency reconsider the permit in order to establish conditions and limits necessary to protect Illinois waters, assure protection of Illinois water quality standards, comply with all applicable public participation requirements, and comply with the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq., and Illinois law.

Respectfully submitted this 18th day of October, 2012 by:

Ann Alexander, IL Bar # 6278919
Meleah Geertsma, IL Bar # 6298389
Natural Resources Defense Council
2 N. Riverside Plaza, Suite 2250
Chicago, IL 60606
Tel: (312) 651-7905

Attorneys for Petitioners NRDC, Sierra Club, and PRN

EXHIBIT 1

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

217/782-0610

MAJOR

September 14, 2012

Dynegy Midwest Generation, Inc.
Attn: Manager, Environmental Resources
604 Pierce Boulevard
O'Fallon, IL 62229

Re: Dynegy Midwest Generation, Inc.
NPDES Permit No. IL0001571
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. The failure of you to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge. The following changes have been made since the public notice of this permit:

1. Special Condition 8 was modified to require mercury sampling throughout the life of the permit.

2. The approximate flow for the Unit 6 Auxiliary Heat Exchangers are now correctly listed at 10 MGD as listed in Form 2C.

3. The approximate flow for the Non-Contact Air Compressor Cooling Water is now correctly listed as 22 MGD as listed in Form 2C.

4. The Stormwater Pollution Prevention Plan in Special Condition 19 has been updated.

5. Special Condition 21 was modified to require additional sampling at outfall 003.

6. Various typographical errors and footnote reference errors have been corrected.

The Permit as issued is effective as of the date indicated on the first page of the Permit. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

To assist you in meeting the self-monitoring and reporting requirements of your reissued NPDES permit, a supply of preprinted Discharge Monitoring Report (DMR) forms for your facility is being prepared. These forms will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

Should you have questions concerning the Permit, please contact Mark E. Liska at (217) 782-0610.

Very truly yours,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:10062309.bah

Attachment: Final Permit

cc: Records
Compliance Assurance Section
Springfield Region
USEPA

NPDES Permit No. IL0001571

Illinois Environmental Protection Agency

MAJOR

Division of Water Pollution Control

1021 North Grand Avenue, East

P.O. Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: September 30, 2017

Issue Date: September 14, 2012
Effective Date: October 1, 2012

Name and Address of Permittee:

Dynegy Midwest Generation, Inc.
604 Pierce Blvd.
O'Fallon, Illinois 62269

Facility Name and Address:

Dynegy Midwest Generation, Inc.
Havana Power Station
15260 North State Rte. 78
Havana, Illinois 62644
(Mason County)

Discharge Number and Name:

001 Condenser Cooling Water
B01 Units 1-5 Roof Drainage
002 North Ash Pond Discharge
A02 Cooling Tower Blowdown
D02 Groundwater Remediation Discharge (HAVW-104/HARW-120)
003 South Ash Pond Discharge
004 Sewage Treatment Plant Effluent
005 East Ash Pond Discharge
006 Unit 6 Roof Drainage and Service Water System Head Tank Overflow
007 North Area Stormwater Runoff

Receiving Waters

Illinois River

In compliance with the provisions of the Illinois Environmental Protection Act, Subtitle C and/or Subtitle D Rules and Regulations of the Illinois Pollution Control Board, and the Clean Water Act, the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:10062309.bah

NPDES Permit No. IL0001571

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVG.	LOAD LIMITS lbs/day DAF (DMF) DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 001 Condenser Cooling Water

This discharge consists of:	Approximate Flow
1. Units 1-5 Condenser Cooling Water	365.2 MGD
2. Units 1-5 Turbine Oil Coolers	20.0 MGD
3. Units 1-5 Roof Drainage	Intermittent
4. Unit 6 Auxiliary Heat Exchangers	10 MGD
5. Intake Screen Backwash	0.3 MGD
6. Non-Contact Air Compressor Cooling Water	22.0 MGD

Flow	See Special Condition 1		Daily	Continuous
Temperature	See Special Condition 3		Daily	Continuous
Total Residual Chlorine / Total Residual Oxidant**		0.05**	1/Week	*

* The permittee shall only sample when chlorination occurs. See Special Condition 10.
** See Special Condition 22.

Outfall(s): B01 Units 1-5 Roof Drainage

Approximate Flow - Intermittent

See Special Condition 19 for SWPPP

NPDES Permit No. IL0001571

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVG.	DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 002 North Ash Pond Discharge*

This discharge consists of:	Approximate Flow
1. Units 1-6 Ash Hopper Overflow**	2.8 MGD
2. Units 1-6 Boiler Blowdown**	1.08 MGD
3. Unit 6 Condensate Polisher Wastes	0.29 MGD
4. Units 1-6 Floor and Sump Drainage**	0.28 MGD
5. Units 1-6 Water Sampling and System Drains	0.006 MGD
6. Units 1-5 Miscellaneous Heat Exchangers**	0.1 MGD
7. Units 1-5 Ash Handling Equipment Drainage	0.06 MGD
8. Unit 6 Coal Pile Runoff	Intermittent
9. Unit 6 Transformer Drains**	0.28 MGD
10. Yard Area Runoff***	Intermittent
11. Water Softener Backwash	0.01 MGD
12. Service Water Strainer Backwash	0.72 MGD
13. Units 1-6 Nonchemical Metal Cleaning Wastes	Intermittent
14. Unit 6 Cooling Tower Blowdown	9.12 MGD
15. Winter Low Point Drain Line	Intermittent
16. Accumulated Coal Barge Stormwater	Intermittent
17. Reverse Osmosis Unit Concentrate	0.122 MGD
18. Reverse Osmosis Unit Maintenance Waste	Intermittent
19. Production Support Building Roof Drainage***	Intermittent
20. Deep Well Acid Cleaning Wastewater	0.01 MGD - Once Every 2 Years
21. Scrubber System Low -Volume Wastewaters (sump discharges, service water strainer backwash waters, and misc. Floor and storm water drains)	0.5 MGD
22. Scrubber Nozzle Cleaning Solutions	Intermittent
23. Lime Slurry Overflow	Intermittent

Flow	See Special Condition 1			1/Week	Continuous
pH	See Special Condition 2			1/Week	Grab
Total Suspended Solids		15	30	1/Week	8-Hr Composite
Oil and Grease		15	20	1/Week	Grab
Mercury****		Monitor Only		1/Quarter	Grab

*Effluents from the North Ash Pond are normally discharged to the Eash Ash Pond via transfer pumps.
**These waste streams are routed through oil/water separators prior to discharge into the North Ash Pond.
***See Special Condition 20.
**** See also Special Conditions 8 and 9.

NPDES Permit No. IL0001571
Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVG.	LOAD LIMITS lbs/day DAF (DMF) DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): A02 Cooling Tower Blowdown – Approximate Flow = 9.12 MGD

See Special Condition No. 16

Outfall(s): D02 - Groundwater Remediation Discharge (HAVW-104/HARW-120)*

This discharge consists of:	Approximate Flow		
Groundwater resulting from the Diesel Fuel Storage Tank Remediation Project	0.25 MGD		
Flow		2/Year	24 Hour Total
Naphthalene		2/Year	Composite
Acenaphthylene		2/Year	Composite
Acenaphthene		2/Year	Composite
Fluorene		2/Year	Composite
Phenanthrene		2/Year	Composite
Anthracene		2/Year	Composite
Fluoranthene		2/Year	Composite
Pyrene		2/Year	Composite
Benzo(A)Anthracene		2/Year	Composite
Chrysene		2/Year	Composite
Benzo(B)Fluoranthene		2/Year	Composite
Benzo(K)Fluoranthene		2/Year	Composite
Benzo(A)Pyrene		2/Year	Composite
Dibenzo(A, H)Anthracene		2/Year	Composite
Benzo(G, H, I)Perylene		2/Year	Composite
Indeno(1, 2, 3-CD)Pyrene		2/Year	Composite
Benzene		2/Year	Grab
Toluene		2/Year	Grab
Ethyl Benzene		2/Year	Grab
Xylenes (total)		2/Year	Grab

*See Special Condition 5.

NPDES Permit No. IL0001571

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVG.	DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE
1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:						
Outfall(s): 003 South Ash Pond Discharge***						
This discharge consists of: 1. Dredged Material 2. Stormwater			Approximate Flow Intermittent Intermittent			
Flow	See Special Condition 1				1/Week	24 Hour Total
pH	See Special Condition 2				1/Week	Grab
Total Suspended Solids			15	30	1/Week	24 Hour* Composite
Oil and Grease			15	20	2/Month	Grab
Mercury**			Monitor Only		1/Quarter	Grab

*See Special Condition 18.
** See also Special Conditions 8 and 9.
*** See also Special Condition 21.

Outfall: 004 - Sewage Treatment Plant Effluent (Discharge = 0.01 MGD)

Flow	See Special Condition 1				1/Week	Continuous
pH	See Special Condition 2				1/Month	Grab
Total Suspended Solids	2.5	5.0	30	60	1/Month	24 Hour Composite
BOD	2.5	5.0	30	60	1/Month	Grab
Fecal Coliform	See Special Condition 23				1/Month	Grab
Total Residual Chlorine				0.05	1/Week***	Grab

***See Special Condition 10.

NPDES Permit No. IL0001571

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVG.	LOAD LIMITS lbs/day DAF (DMF) DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 005 East Ash Pond Discharge***

This discharge consists of:	Approximate Flow
1. Unit 6 Bottom Ash Sluice Water	4.32 MGD
2. Unit 6 Fly Ash	
3. Unit 6 Dry Fly Ash Handling Area Drainage	1.5 MGD
4. Dredged Material	Intermittent
5. Unit 6 Condensate Polisher Wastes	0.29 MGD
6. North Ash Pond Discharge	4.75 MGD
7. Mercury Sorbent Residue Discharge	Intermittent
8. Spray Dryer Absorber Residue from Air Pollution Control System	Intermittent
9. Diatomaceous Earth from Bag House	Intermittent
10. Fluorescent Powder (Bag House Leak Detection)	Intermittent
11. Sulfuric Acid (pH adjustment)	Intermittent
12. Non-Chemical Metal Cleaning Waste	Intermittent

Flow	See Special Condition 1			1/Week	24 Hour Total
pH	See Special Condition 2			1/Week	Grab
Total Suspended Solids		15	30	1/Week	24 Hour* Composite
Oil and Grease		15	20	2/Month	Grab
Mercury**		Monitor Only		1/Quarter	Grab

*See Special Condition 18
**See also Special Conditions 8 and 9
***See also Special Condition 21

Outfall(s): 006 Unit 6 Roof Drainage - Approximate Flow Intermittent
Service Water System Head Tank Overflow - Intermittent

Outfall(s): 007 North Area Stormwater Runoff - Approximate Flow Intermittent

See Special Condition 19 for SWPPP.

NPDES Permit No. IL0001571

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day and reported as a monthly average and a daily maximum on the monthly discharge monitoring report.

SPECIAL CONDITION 2. pH shall be in the range 6.0 to 9.0 and shall be reported as a daily maximum and a daily minimum.

SPECIAL CONDITION 3. This facility meets the allowed mixing criteria for thermal discharges at the edge of the mixing zone in the Illinois River, pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to cause exceedances of the thermal water quality standards in the Illinois River. This determination is based a design average flow of 390 MGD and a maximum reported temperature of 102.8°F The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the monthly Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is reasonable potential to exceed a thermal water quality standard. Modification to this permit shall follow public notice and opportunity for comment.

There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions. The normal daily and seasonal temperature fluctuations which existed before the addition of heat due to other than natural causes shall be maintained.

SPECIAL CONDITION 4. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 5. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using on e such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless specified by the permitting authority. Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Monitoring Reports for Outfall D02 shall be submitted in June and December

SPECIAL CONDITION 6. Standard Condition 11(a) of Attachment H is rewritten as follows:

An application submitted by a corporation shall be signed by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the application form originates. In the case of a partnership or a sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively. In the case of a publicly owned facility, the application shall be signed by either the principal executive officer, ranking elected official, or other duly authorized employee.

SPECIAL CONDITION 7. Standard Condition 11(b) of Attachment H is rewritten as follows:

Pursuant to 40 CFR 122.22(b) all reports required by permits, other information requested by the Director, and all permit applications submitted for Group II storm water discharges under 122.2(b)(3) shall be signed by a person described in 40 CFR 122.22(a), or by a duly authorized representative of that person. A person is duly authorized representative only if:

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1. The authorization is make in writing by a person described in paragraph (a) of this section;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and
3. The written authorization is submitted to the Director.

SPECIAL CONDITION 8. Outfalls 002, 003, and 005 shall be monitored for mercury on a quarterly basis throughout the life of the permit.

SPECIAL CONDITION 9. All samples for mercury must be analyzed by EPA Method 1631E using the digestion procedure described in Section 11.1.1.2 of 1631E, which dictates that samples must be heated at 50°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.

SPECIAL CONDITION 10. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

SPECIAL CONDITION 11. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 12. Dynegy Midwest Generation (formerly Illinois Power Company) has complied with Section 302.211(f) of Title 35, Chapter 1, Subtitle C: Water Pollution Regulations by demonstrating that thermal discharge from Havana Power Plant has not caused and cannot reasonably be expected to cause significant ecological damage to the Illinois River as approved by the IPCB in PCB 78-12 on October 19, 1978. Pursuant to 35 Ill. Adm. Code 302.211(g) no additional monitoring or modification is being required for reissuance of this NPDES permit.

SPECIAL CONDITION 13. Dynegy Midwest Generation (formerly Illinois Power Company) demonstration for the Havana Power Plant in accordance with Section 316(b) of the CWA was determined to meet BTA at the time of the demonstration, and was approved by this Agency by letter dated December 29, 1978.

SPECIAL CONDITION 14. In order for the Agency to evaluate the potential impacts of cooling water intake structure operations pursuant to 40 CFR 125.90(b), the permittee shall prepare and submit information to the Agency outlining current intake structure conditions at this facility, including a detailed description of the current intake structure operation and design, description of any operational or structural modifications from original design parameters, source waterbody flow information, or other information as necessary.

The information shall also include a summary of historical 316(b) related intake impingement and / or entrainment studies, if any, as well as current impingement mortality and / or entrainment characterization data; and shall be submitted to the Agency within six (6) months of the permit's effective date.

Upon the receipt and review of this information, the permit may be modified to require the submittal of additional information based on a Best Professional Judgment review by the Agency. This permit may also be revised or modified in accordance with any laws, regulations, or judicial orders pursuant to Section 316(b) of the Clean Water Act.

SPECIAL CONDITION 15. The discharge of priority toxic pollutants (40 CFR 423, Appendix A) in detectable amounts from cooling tower discharges is prohibited if the pollutants come from cooling tower maintenance chemicals. The use of cooling tower maintenance chemicals containing chromium or zinc is prohibited unless this permit has been modified to include the use and discharge of these chemicals.

SPECIAL CONDITION 16. There shall be no discharge of collected man-made debris from the cleaning of the outer bar rack of the screen house.

SPECIAL CONDITION 17. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 18. If inclement weather or low flow conditions in the discharge prohibit the collection of a 24-hour

composite sample, sampling shall consist of a grab sample.

SPECIAL CONDITION 19. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (Outfalls B01, 006 and 007 only)

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

   Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

   For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

   Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.

2. A site map showing:

   i. The storm water conveyance and discharge structures;

   ii. An outline of the storm water drainage areas for each storm water discharge point;

   iii. Paved areas and buildings;

   iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.

v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);

vi. Surface water locations and/or municipal storm drain locations

vii. Areas of existing and potential soil erosion;

viii. Vehicle service areas;

ix. Material loading, unloading, and access areas.

x. Areas under items iv and ix above may be withheld from the site for security reasons.

3. A narrative description of the following:

i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;

ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;

iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;

iv. Industrial storm water discharge treatment facilities;

v. Methods of onsite storage and disposal of significant materials.

4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.
5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.

6. A summary of existing sampling data describing pollutants in storm water discharges.

F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:

1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.

2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill cleanup equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.

5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.

ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.

iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.

iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.

v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.

vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspirate runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.

6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.

8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.

H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.

1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.

2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measureable (greater than 0.1 inch rainfall) storm event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended

solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.

3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.

5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).

6. The visual observation documentation shall be made available to the Agency and general public upon written request.

I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.

K. The plan is considered a report that shall be available to the public at any reasonable time upon request.

L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.

O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.

P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

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REPORTING

R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.

S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. The permittee shall notify any regulated small municipal separate storm sewer owner (MS4 Community) that they maintain coverage under an individual NPDES permit. The permittee shall submit any SWPPP or any annual inspection to the MS4 community upon request by the MS4 community.

SPECIAL CONDITION 20. (Outfall 002 only) The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 21. The Permittee shall monitor the effluent from Outfalls 002, 003 and 005 for the following parameters on a 2/year basis. This Permit may be modified with public notice to establish effluent limitations if appropriate, based on information obtained through sampling. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on the DMR's to IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

STORET CODE	PARAMETER	Minimum reporting limit
10197	Antimony	5.0 ug/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (Hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L

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00718	Cyanide (weak acid dissociable) (grab)	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
10159	Thallium	5.0 ug/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

SPECIAL CONDITION 22. Any use of biocides other than chlorine (such as bromine) shall be subject to a limit of 0.05 mg/L total residual oxidant at all times. For a period of 2 years following the effective date of this permit during times when the condenser cooling water is chlorinated intermittently, TRC may not be discharged from the station for more than 3 hours per day or from any single generation units main cooling condensers for more than 2 hours per day. The discharge limit during this period is 0.2 mg/l, measured as an instantaneous maximum.

A Total Residual Chlorine limit of 0.05 mg/l (Daily Maximum) for outfalls 001 shall become effective 2 years from the effective date of this Permit.

The Permittee shall construct a dechlorination system or some alternative means of compliance in accordance with the following schedule:

1. Status Report	6 months from the effective date
2. Commence Construction	18 months from the effective date
3. Complete Construction	23 months from the effective date
4. Obtain Operation Level	24 months from the effective date

Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders, or Pollution Control Board orders. This Permit may be modified, with Public Notice, to include such revised compliance dates.

The Permittee shall operate the dechlorination system or an alternative means of compliance in a manner to ensure continuous compliance with the Total Residual Chlorine limit, not to the extent that will result in violations of other permitted effluent characteristic, or water quality standards.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated above for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed. the reason for non-completion, and the anticipated completion date.

SPECIAL CONDITION 23. The daily maximum fecal coliform count shall not exceed 400 per 100 ml.

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry**. The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:
- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records**.
- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
- (c) Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurements;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses.
- (d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement**. All applications, reports or information submitted to the Agency shall be signed and certified.
- (a) **Application**. All permit applications shall be signed as follows:
  - (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation:
  - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
- (b) **Reports**. All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - (1) The authorization is made in writing by a person described in paragraph (a); and
  - (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
  - (3) The written authorization is submitted to the Agency.
- (c) **Changes of Authorization**. If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) **Certification**. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

  I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements**.
- (a) **Planned changes**. The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:
  - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
  - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
  - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (b) **Anticipated noncompliance**. The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Transfers**. This permit is not transferable to any person except after notice to the Agency.
- (d) **Compliance schedules**. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (e) **Monitoring reports**. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
  - (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting**. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(2) Any upset which exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance**. The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) **Bypass**.

(a) Definitions.

(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

(c) Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(d) Prohibition of bypass.

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset**.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).

(4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits**. Permits may be transferred by modification or automatic transfer as described below:

(a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

(b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically

transferred to a new permittee if:

(1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and

(3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

(17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

(28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

EXHIBIT 2

PRAIRIE RIVERS NETWORK
1902 Fox Drive, Suite G
Champaign, Illinois 61820
217 / 344-2371
217 / 344-2381 fax
www.prairierivers.org

December 8, 2011

Via email to epa.publichearingcom@illinois.gov and US mail

Hearing Officer Dean Studer
Illinois EPA
Division of Water Pollution Control
Permit Section
1021 N Grand Ave East
PO Box 19276
Springfield, IL 62794-9276

Re: NPDES Permit No. IL0001571, Notice No. MEL: 10062309.bah
Dynegy Midwest Generation, Inc, Havana Power Station
POST-HEARING COMMENTS

Dear Mr. Studer:

These comments are submitted on behalf of Prairie Rivers Network, the Illinois Chapter of the Sierra Club, and Natural Resources Defense Council regarding the above referenced draft permit for the discharge of 393 MGD of condenser cooling water, the intermittent discharge of Units 1-5 Roof Drainage, 15.38 MGD of North Ash Pond Discharge, 9.12 MGD of Cooling Tower Blowdown, 0.25 MGD of treated groundwater, the intermittent discharge of South Ash Pond Discharge, 0.01 MGD of treated plant effluent, 21.5 MGD of East Ash Pond Discharge, the intermittent discharge of Unit 6 Roof Drainage and

circulation cooling water system head tank overflow, and intermittent discharge of stormwater runoff from the northern property of the Havana Power Station into the Illinois River in Mason County, Illinois.

Prairie Rivers Network (PRN) is the state affiliate of the National Wildlife Federation, a non-profit organization that strives to protect the rivers, streams and lakes of Illinois and to promote the lasting health and beauty of watershed communities. Natural Resources Defense Council, Inc. (NRDC), a not-for-profit corporation organized and existing under the laws of the State of New York, is a national environmental organization with more than 400,800 members. More than 16,840 of these members live in Illinois. NRDC is dedicated to the preservation, protection, and defense of the environment, its wildlife and natural resources, and actively supports effective enforcement of the Clean Water Act on behalf of its members. The Illinois Chapter of the Sierra Club (Sierra Club) is a statewide organization representing over 26,000 individuals committed to protecting the Illinois environment. Several of the members of PRN, NRDC and the Sierra Club live in, recreate within and draw their employment and income from the Illinois River Watershed and would be adversely affected by discharge of pollutants that degrades water quality in the Illinois River.

The investments in air pollution controls at the Dynegy Havana Power Station are the result of a lawsuit against Dynegy dating back to 1999. Federal and state governmental parties were joined in the case by a coalition of citizen groups including the American Bottom Conservancy; Health and Environmental Justice - St. Louis; Illinois Stewardship Alliance; and the Prairie Rivers Network. Investments at five power stations including the Havana Power Station, Baldwin Power Station, Hennepin Generating Station, Vermilion Generating Station and Wood River Generating Station were required to reduce air pollution by over 54,000 tons per year. This has been a tremendous step forward.

We applaud the additional air pollution controls employed by Dynegy at the Havana Power Station. However, it is appalling that the pollutants being removed from air emissions are simply being moved to water. In addition to the threats from the buildup of mercury concentrations in fish flesh and further up the food chain, power plant waste in the form of fly ash, bottom ash and activated mercury sorbent contains concentrated levels of arsenic, chromium and cadmium that can damage the nervous systems and other organs, especially in children.

The Illinois River is an important system for the many riverside communities that rely on clean water for their small businesses and tourist attractions, for the commercial fishermen that draw their income and livelihood from healthy fish, and for the residents that rely on clean water and a healthy ecosystem for recreation and aesthetic enjoyment. The Illinois River Valley is also a rich ecosystem for many types of wildlife. In fact, historically, the Illinois River Valley has been one of the most important migration areas for waterfowl in North America. During spring and fall migrations, waterfowl are attracted to the abundance of food available in the shallow bottomland lakes, sloughs, marshes, ponds, and forests. Though the Illinois River Valley has been greatly altered by drainage of the wetlands and sedimentation of the river, significant reinvestments in this system are producing an unprecedented revival.

The Middle Illinois River system, where Dynegy proposes to increase its discharges, boasts 134 Heritage sites and eight Natural Area sites, totaling the sixth highest percentage of natural area acreage among the IDNR's Resource Rich Areas. There are nine state holdings--one state park, five conservation areas, one forest, and two fish and wildlife areas. Emiquon, Chautauqua and Meridosia National Wildlife Refuges are federal lands located here. Prominent natural features include sand prairies, hill prairies, springs, seeps, savannas, ponds, lakes, woods, and habitats for herons, eagles, as well as the state threatened Illinois Chorus Frog and Illinois Mud Turtle.

A recent multi-million dollar project at the Emiquon Preserve has created a mosaic of habitats that now support over 212 species of birds documented there including woodland, wetland and prairie species. The Nature Conservancy signed a cooperative fisheries management agreement with IDNR in 2007, and as a result, nearly 2 million fish were stocked in Emiquon's waters with many species not available from hatcheries. Emiquon now has 5,800 acres of wetlands with additional adjacent restoration taking place. Chautauqua National Wildlife Refuge, Emiquon National Wildlife Refuge, plus the Emiquon Preserve, comprise roughly 14,000 acres of Illinois River Valley which will be restored into habitat that will promote the betterment of a whole variety of species.

Several of our members and members live and recreate in the Illinois River watershed and would be adversely affected by a discharge of pollutants that degrades water quality. We object to the issuance of this permit for the reasons discussed below.

Objections

As detailed below, we object to the issuance of this permit for the following reasons which are described in further detail in the following paragraphs:

I. The Agency has Failed to Fully Identify and Quantify Proposed Pollutant Load Increases and the Potential Impacts of those Load Increases on the Affected Waters as Required by 35 IAC 302.105 c) 2)and f) 1) B).

II. Appropriate Permit Limits and Monitoring Requirements have not been Assigned to Assure Water Quality Standards in the Receiving Streams will be Met per 40 CFR 122.44(d)(1); 40 CFR 122.48.

III. Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 (c)(B)(iii) has not been satisfactorily addressed in that alternatives for minimizing increases in pollutant loadings have not been fully explored.

IV. IEPA Has Failed to Show that Lowering Water Quality is Necessary

The comments in this letter are in addition to the June 10, 2011 comments submitted by PRN and Sierra Club on the draft permit, comments made at the November 7, 2011 public hearing by PRN and Sierra Club staff and volunteers, and separate post-hearing comments being submitted by NRDC, Sierra Club and PRN.

* * * * *

I.

The Agency has Failed to Fully Identify and Quantify Proposed Pollutant Load Increases and the Potential Impacts of those Load Increases on the Affected Waters as Required by 35 IAC 302.105 c) 2)and f) 1) B).

The Agency must identify and quantify the proposed load increases and the impacts of those increases in accordance with 35 IAC 302.105 (f)(1)(B). We are concerned that the cumulative, additive and synergistic impacts of potential pollutant load increases have not been fully identified and evaluated for potential impacts to water quality. For instance, this modified permit adds several new waste streams to the Illinois River via the east ash pond and Outfall 002: 1) deep well acid cleaning wastewaters, 2) scrubber system low-volume wastewaters including sump discharges, service water strainer backwash waters and miscellaneous floor and storm water drains and 3) lime slurry overflow; and via the east ash pond and Outfall 005, : 1) lime sludge, 2) diatomaceous earth, and 3) intermittent discharges of sulfuric acid, nonchemical metal cleaning waste and fluorescent powder. All of these volumes of waste- some basic-some acidic, some liquid-

some dry, some salty-some high in toxic metals will be mixed together in the east ash pond and allowed to decant into the Illinois River. Provide evidence that the Agency has evaluated the mixture's discharge for 1) potential pollutant load increases, 2) ability to meet water quality standards in the receiving waterway, 3) the potential impact to water quality, 4) the potential impact on existing uses in the receiving stream and 5) the potential impact on underlying groundwater and potential lateral leaching through the ash pond's walls.

Considering that the Illinois River is currently listed as impaired for fish consumption uses due to high levels of mercury on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006 and that the River is heavily fished and hunted for both recreational and commercial interests, it is imperative that reductions in heavy metal pollution be seriously addressed. There are also many downstream water users including industrial facilities, agricultural irrigators and recreational boaters that rely on clean water.

The antidegradation assessment fails to fully identify and quantify mercury loadings to the Illinois River. Despite an admission that up to 0.6 pounds of mercury will be added to the east ash pond each day, the agency concludes that mercury loading to the environment will decrease. IEPA relies for this conclusion on two studies, one preliminary and the other, inapplicable. The first, a report by EPRI, "Activated Carbon Injection: Effect on Fly Ash Sluice Water," was simply a "preliminary review of a small number of samples intended to identify potential issues and guide future research."

The second study relied on by IEPA in concluding that mercury loadings will decrease is a US EPA study entitled "Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control" from February 2006, EPA-600/r-06/008. Use of this study to justify the conclusion that mercury loadings to the east ash pond will decrease is misguided and insupportable, as the purpose of this study was to examine the potential for the mercury, arsenic and selenium

contained in CCRs to *leach to groundwater* The issue here is the potential for adsorbed pollutants to be discharged from impoundments, an issue not addressed in the US EPA study cited.

Although IEPA says no mercury sorbent will go to the river, it is listed as an intermittent waste stream under Outfall 005. The Agency also claims that if the mercury sorbent is discharged it will sink to the bottom of the river and that still counts as "no increased loading'. We vehemently disagree. Bound to particle or not, if it goes in the river, it is an increase.

The agency must identify and quantify mercury loadings to the Illinois River. It can do so by evaluating data from similar facilities in the Midwest. At the public hearing, the permit writer, Mr Liska said "Well, we would look at – for this one, we would look at pretty much any of -- any of the other coal power plants that are in Illinois, and there are -- there are enough coal power plants in Illinois either by -- either owned by Dynegy or by other people that we would -- we would definitely have enough data." Considering that each plant is unique in the type of coal burned, type of combustion process, air treatment technology and ash handling process, it is important that comparisons in the characterization of ash material from one facility to another is done comparing "apples to apples". We respectfully ask the Agency to provide evidence into the record of such a review and how the findings of the review were employed in order to fully inform the proposed increase of, fate and transport of additional pollutants to and in the Illinois River.

In this regard, we also note that according to information found in US EPA's Enforcement and Compliance History Online (ECHO) database, increasing mercury discharges have been a problem at another Illinois coal fired facility that has employed ACI. At Ameren's Newton Power Station, mercury discharges from outfall 001 from the facility's ash pond have been increasing steadily since 2009 when the facility began using activated carbon

injection. In the first quarter of 2011, mercury effluent measured 17.8 ng/L, and in the second quarter of 2011, it was 18 ng/L, both in exceedance of the 12 ng/L Human Health Standard for mercury. 35 IAC 302.208 (f).

II.
Appropriate Permit Limits and Monitoring Requirements have not Been Assigned to Assure Water Quality Standards in the Receiving Streams will be Met.

IEPA must include effluent limits necessary to achieve water quality standards in the receiving water. 40 C.F.R. § 122.44(d) (1). Limitations must control pollutants that "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to" a violation of water quality standards. 40 C.F.R § 122.44(d)(1)(i). IEPA must consider a variety of factors when determining whether a discharge has the reasonable potential to cause or contribute to a violation of water quality standards, including, the variability of the pollutant in the effluent, the dilution of the effluent in the receiving water, the pollutant, the type of industry, and the receiving water quality and use.[1]

From multiple sources, we know that water softener backwash, reverse osmosis unit concentrate, deep well acid cleaning wastewater, lime slurry, scrubber system wastewaters and coal combustion waste/residue (CCR), made up of fly ash and bottom ash typically includes toxic metals including arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium 226, strontium 90, selenium, sulfate total dissolved solids and zinc as well as salt including sulfates and chlorides. It is IEPA's duty to require monitoring for those constituents that have the potential to be in the waste stream and to set protective limits

[1] 40 C.F.R. § 122.44(d)(1)(ii), U.S. EPA, TECHNICAL SUPPORT DOCUMENT FOR WATER QUALITY-BASED TOXlCS CONTROL, EPA/505/2-90-001, 50 (March 1991).

in the event that these harmful constituents are detected. The current permit does not set a permit limit for any of these constituents and currently sets only a quarterly monitoring requirement for mercury.

We understand the ash ponds will receive contributions from multiple waste streams including: ash hopper overflow, boiler blowdown, condensate polisher wastes, floor and sump drainage, ash handling equipment drainage, water softener backwash, cooling tower blowdown, deep well acid cleaning wastewater, scrubber system wastewaters, lime slurry overflows and coal pile runoff among others. We also understand that some dilution and settling will be possible in these ponds, though without monitoring and permit limits, it is unclear how the agency will ensure that water quality standards for these potential toxins will be met in the receiving river. As such, we request the permit include monthly water quality monitoring (rather than twice per year as in Special Condition 21). We also request that the agency conduct reasonable potential analyses (RPA) on the following pollutants to determine whether any have the potential to cause or contribute to violations of water quality standards: arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium 226, strontium 90, selenium, sulfate, total dissolved solids. In the alternative, the agency can set concentration limits in the permit for each of these parameters.

At risk is the Middle Illinois River, which hosts an important commercial and recreational fishery. What is at question here is whether it is ok to permit another ½ pound of mercury to be discharged to the ash ponds and ultimately the river when we know that just one gram pollutes a 20 acre lake. IEPA must also perform a reasonable potential analysis on mercury discharges and determine whether there is a reasonable potential for Dynegy's proposed discharge to contribute to the fish consumption use impairment. Given the high concentrations of mercury reported in similar discharges at the Newton Power Plant, the twelve months of mercury monitoring required by Special Condition 18 are not sufficient. The modified permit should set a limit for mercury discharges from

Outfall 001 if the analysis demonstrates a reasonable potential to violate the human health standard.

This analysis is critical, because mercury accumulates in the environment, and especially in fish tissue, over time. It must be assumed that additional mercury will accumulate in those fish, posing further risk to those consuming fish flesh. We can also assume there is a buildup of mercury sorbed to sediment particles that have settled to the river bottom. When bottom sediments are stirred, particles containing some degree of attached pollutants are released into the water column where they are available for uptake by fish. An analysis of the mercury found in the sediment in the river would aid in determining the extent to which additional loadings of mercury to the river from the power plant should be allowed. Additionally, temperature loading to the Illinois River may contribute to periods of anoxic zones in the receiving and adjacent river segments, facilitating the methylation or release of mercury available to aquatic organisms such as fish into the river.

III.

Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 (f)(D) has not been satisfactorily addressed in that alternatives for minimizing increases in pollutant loadings have not been fully explored.

On June 7, 2010, James Hanlon, EPA's Director of Wastewater Management issued an interim guidance to assist National Pollutant Discharge Elimination System (NPDES) permitting authorities in establishing appropriate permit requirements for wastewater discharges from Flue Gas Desulfurization (FGD) systems and coal combustion residual (CCR) impoundments at Steam Electric Power Plants.[2] The EPA guidance *Technology-based Effluent Limits Flue Gas Desulfurization (FGD) Wastewater at Steam Electric Facilities* offers examples of alternatives which should be explored for this facility in order

[2] http://www.epa.gov/npdes/pubs/hanlonccrmemo.pdf

to satisfy 35 Ill. Adm. Code 302.105 (f)(D). As the guidance states, "Pollutants such as selenium, boron, and magnesium, are present mostly in soluble form and are not effectively and reliably removed by wastewater settling ponds. For metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction. Technologies more advanced than settling ponds are available and more effective at removing both soluble and particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids." [3]

Alternative technologies discussed in this guidance include chemical precipitation, biological treatment, and vapor-compression evaporation. IEPA must require Dynegy Midwest Generation to evaluate these additional treatment measures in order to address and minimize the proposed increased mercury discharges, discharges of the bioaccumulative selenium, as well as other heavy metals and salts. Additional steps should also be taken to separate, handle and treat waste streams in an effort to reduce pollutant loading or exacerbation of existing loading issues. For example, the applicant should be required to consider:

-neutralizing deep well acid cleaning rinse water in a separate basin or tank and then sending to the river through a separate discharge point

-landfilling mercury sorbent waste product

-handling other miscellaneous waste streams in separate lined basins

Dynegy must also examine the economic and technical feasibility of utilizing dry ash handling and disposal, which would save great amounts of power plant waste from entering the Illinois River system. Per IEPA calculations, switching the Havana Power Station to dry ash handling and disposal could ultimately reduce loading of over 219 pounds of mercury per year to the Illinois River, as well as several additional pollutants.

[3] http://www.epa.gov/npdes/pubs/steamelectricbpjguidance.pdf

In a report on the integrity of the dam impounding the ash material in the East Ash Pond submitted to the USEPA, the current operational procedures at the Havana Power Plant, as reported by Dynegy, are as follows:

- Fly ash is transported dry to East Ash Pond System Cell 3, where it is wetted and discharged into Cell 3;
- Boiler ash is wetted at the plant, pumped to East Ash Pond System Cell 3.
- Coal pile runoff is directed to the North Ash Pond System. Decant water is then pumped to East Ash Pond System Cell 2. Dynegy reports that the North Ash Pond System is permitted to receive Coal Combustion Waste, but under current operation practices, this would only occur if discharge could not be made into the East Ash Pond System.

The antidegradation assessment states "Disposal of the mercury containing sorbent with the fly ash is necessary given that the mercury sorbent is mixed in with the other ash." We understand from the operational procedures which Dynegy has reported that the fly ash can and is handled and transported dry before it is sluiced to the East Ash Pond. So the opportunity clearly exists for the Havana Power Station to dispose of the fly ash in a dry manner. It is insufficient for Dynegy (and the Agency in its antidegradation assessment) to dismiss this alternative simply by stating "When the ash pond system becomes full, Dynegy will consider the alternatives for ash disposal available at that future time and dry ash landfilling will be a topic of discussion."

IV.

IEPA Has Failed to Show that Lowering Water Quality is Necessary

Illinois antidegradation rules prohibit the lowering of water quality without a showing that the lowering of water quality is necessary to accommodate important economic or social development. *35 IAC 302.105 (c)(1)*. A showing of necessity requires a

demonstration that protection of existing water quality is not technically or economically feasible. *Des Plaines River Watershed Alliance v. Illinois EPA and Village of New Lenox*, PCB no. 04-88 (April 19, 2007) ("*New Lenox*") at *99. The analysis must demonstrate that all technically and economically reasonable alternatives to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed expansion. *New Lenox at *98.* The Illinois Pollution Control Board has directed the IEPA to apply US EPA's Interim Economic Guidance for Water Quality Standards in making a determination as to what is economically reasonable. The guidance provides a method by which to conduct affordability analyses on treatment alternatives. Despite these clear directives, Dynegy failed to perform any economic analysis whatsoever, and instead simply concluded that abandoning their preferred alternative was simply "not reasonable."

Among other alternatives, Dynegy failed to demonstrate that a dry ash landfill is not economically feasible, stating instead that they will consider the option once remaining capacity at the East Ash Pond is exhausted. Because Dynegy has failed to meet its burden regarding the showing of necessity, the increased pollutant loadings of inorganic salts, sulfates and other dissolved solids, TSS, mercury, and other heavy metals to the Illinois River cannot be permitted.

Simply moving pollutants from air emissions to water must not be tolerated. In addition to the threats from the buildup of mercury concentrations in fish flesh[4], power plant waste in the form of fly ash, bottom ash and activated mercury sorbent contains concentrated levels of arsenic, chromium and cadmium can be harmful to human health.[5]

In many locations nationwide, these wastes have degraded public ground and surface waters adversely impacting consumptive, agricultural, and industrial uses. Studies have

[4]Illinois Department of Public Health Fish Advisory.
http://www.idph.state.il.us/envhealth/fishadvisory/fishadvisory_qa.htm
[5] USEPA http://www.epa.gov/R5Super/ecology/html/toxprofiles.htm

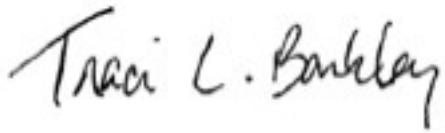
also documented multiple developmental, physiological and behavioral abnormalities in many species of amphibians inhabiting wetlands near coal ash disposal sites[6] and toxicity to fish. [7] This is the perfect opportunity for Dynegy to retire its wet ash ponds in Havana and to invest in both clean air and clean water technology by disposing of its waste in a lined dry ash landfill.

* * * * *

We note also that nearly 2000 CREDO Action members in Illinois have submitted comments urging you to reject the water permit for the Havana coal ash pond.

Thank you for taking theirs and our comments into consideration.

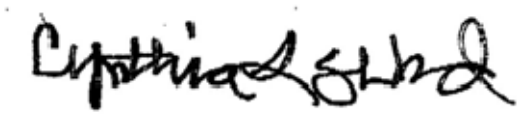
Sincerely,



Traci Barkley
Water Resources Scientist
Prairie Rivers Network

[6] Roe, J. H., W. A. Hopkins, S. E. DuRant and J. M. Unrine. 2006. Effects of competition and coal-combustion wastes on recruitment and life history characteristics of salamanders in temporary wetlands. Aquatic Toxicology 79:176-184; John D. Peterson, Vikki A. Peterson, Mary T. Mendonça (2008).Growth and Developmental Effects of Coal Combustion Residues on Southern Leopard Frog (Rana sphenocephala)Tadpoles Exposed throughout Metamorphosis. Copeia: Vol.2008, No. 3, pp. 499–503. (American Society of Icthyologistsand Herpetologists) http://www.asihcopeiaonline.org/doi/abs/10.1643/CG-07-047?journalCode=cope.

[7] Lemly A.D. (December 8, 2009). "Coal Combustion Waste is a Deadly Poison to Fish." Prepared for United States Office of Management and Budget Washington, D.C. Lemly A.D. (2002). "Symptoms and implications of selenium toxicity in fish: the Belews Lake case example." Aquatic Toxicology 57.



Dr. Cynthia Skrukrud
Clean Water Advocate
Illinois Chapter of the Sierra Club

Ann Alexander
Senior Attorney
Natural Resource Defense Counsel

cc: Dynegy Midwest Generation, Inc.
Havana Power Station
15260 North State Rte. 78
Havana, Illinois 62644

EXHIBIT 3

NATURAL RESOURCES DEFENSE COUNCIL

December 8, 2011

Via electronic mail (dean.studer@illinois.gov)
and United States Mail

Dean Studer
Hearing Officer
Illinois Environmental Protection Agency
1021 N. Grand Ave. E.
P.O. Box 19276
Springfield, IL 62794-9276

Re: Draft Dynegy Havana Power Station NPDES permit, I.D. No. IL0001571

Dear Mr. Studer:

Enclosed please find the comments of Natural Resources Defense Council, Sierra Club – Illinois Chapter, and Prairie Rivers Network concerning the draft NPDES permit for the Dynegy Havana Power Station, concerning which a public hearing was held November 8, 2011. If you have any questions, please feel free to contact me at 312-651-7905.

Very truly yours,

Ann Alexander

Ann Alexander
Senior Attorney, Midwest Program

Enc.

www.nrdc.org
2 N. Riverside Plaza, Suite 2250
Chicago, IL 60606
TEL 312 663-9900
FAX 312 651-7919
NEW YORK * WASHINGTON DC * SAN FRANCISCO * LOS ANGELES * BEIJING

COMMENTS OF NATURAL RESOURCES DEFENSE COUNCIL, PRAIRIE RIVERS NETWORK, AND SIERRA CLUB – ILLINOIS CHAPTER CONCERNING THE DRAFT NPDES PERMIT NO. IL0001571 FOR THE DYNEGY MIDWEST GENERATION HAVANA POWER STATION

Natural Resources Defense Council ("NRDC"), Prairie Rivers Network ("PRN"), and Sierra Club-Illinois Chapter ("Sierra Club") (collectively, "Commenters") submit these comments concerning draft National Pollutant Discharge Elimination System ("NPDES") permit No. IL0001571 for the Dynegy Midwest Generation, Inc. ("Applicant") Havana Power Station ("Draft Permit"), noticed for comment May 11, 2011 and noticed for public hearing November 8, 2011.

As explained below, the Draft Permit is not in compliance with Clean Water Act ("CWA") requirements in two major respects. First, Illinois Environmental Protection Agency ("IEPA" or "Agency") has failed to perform the necessary antidegradation analysis, in particular the requirement to analyze alternatives to the proposed new discharge; and second, IEPA has failed to use its best professional judgment ("BPJ") to determine the best available technology ("BAT") to control the discharge of mercury, or to require the Applicant to submit the information necessary to support such a determination.

Accordingly, IEPA must deny the Draft Permit on the present record. If IEPA continues to process the Draft Permit, the Agency must revise its terms and conditions substantially, and the revised draft must be re-noticed and the public must have a full and fair opportunity to comment and request a hearing on the revised draft. Pursuant to United States Environmental Protection Agency ("USEPA") regulations at 40 C.F.R. § 124.17, if IEPA issues a final Permit, a written responsiveness summary must be provided addressing all specific comments made in this submittal, along with all other public comments filed during the comment period.

I. IEPA Has Failed to Perform Satisfactory Antidegradation Analysis

The renewed and modified NPDES permit for the Havana Power Station ("Facility") proposes a massive increased discharge of waste from the Facility's new Activated Carbon Injection ("ACI") system into the east ash pond, from which Outfall 005 discharges directly into the Illinois River. To address the increased loading to the receiving waterbody that will result, the Applicant and IEPA purport to have addressed the antidegradation requirements set forth in 35 Ill. Adm. Code § 302.105, the Illinois Code provision implementing USEPA's CWA antidegradation policy. Yet the cursory two pages of analysis provided in the Draft Permit fact sheet ("Fact Sheet") – which directly incorporate the equally limited analysis provided to IEPA by the Applicant – fall woefully short of the analytical requirements of that section.[1]

Specifically, under § 302.105(c)(2)(B), IEPA is required to determine whether a proposed lowering of water quality is "necessary to accommodate important economic or social development." In so doing, it must, *inter alia*, "[a]ssure…[that] [a]ll technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity." Pursuant to subsection 302.105(f), the Applicant was required to provide to the Agency (which must then consider), *inter alia*, the following information: (i) Identification and quantification of the proposed load increases for the applicable parameters and of the potential impacts of the proposed activity on the affected waters, and (ii) assessments of alternatives to proposed increases in pollutant

[1] The comments submitted by PRN and Sierra Club concerning the Draft Permit dated June 10,2011 ("June PRN Comments"), as well as comments made at the Draft Permit public hearing on November 7, 2011 (November PRN Comments"), extensively addressed the shortcomings of the antidegradation analysis, and are incorporated herein by reference. NRDC has also signed onto separate post-hearing comments being submitted together with PRN and Sierra Club.

loading, including additional treatment levels, discharge to different locations, and pollution prevention measures. 35 Ill. Adm. Code § 302.105(f)(1).

The Illinois Pollution Control Board ("IPCB" or "Board") clarified the scope of the analysis required under § 302.105 in its decision in *Des Plaines River Watershed Alliance et al. v. IEPA et al.*, PCB No. 04-88, 2007 Ill. Env. Lexis 149 (April 19, 2007) ("*New Lenox*"), which was affirmed in *EPA and Village of New Lenox v. IPCB et al.,* 896 N.E.2d 479, 324 Ill. Dec. 693 (Third District 2007). In *New Lenox*, the IPCB confirmed that § 302.105(c) requires a thorough analysis of pollution control alternatives to the proposed additional loading, holding that "IEPA's antidegradation assessment must assure that all technically and economically reasonable alternatives to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed expansion." *New Lenox,* slip op. at 27. With respect to the economic component of this analysis, the IPCB referenced the USEPA *Water Quality Standards Handbook*, as follows:

> USEPA's *Water Quality Handbook* states in "high-quality waters", before any lowering of water quality occurs, there must be an antidegradation review consisting of a finding that lowering of water quality is necessary to accommodate important economical or social development in the area in which the waters are located. *Water Quality Standards Handbook*,[2] Chapter 4, Pg. 4-7. As noted by the petitioners, USEPA's interim economic guidance[3] for water quality standards states:
>
> > When performing an antidegradation review, the first question is whether the pollution controls needed to maintain the high-quality water will interfere with the proposed development. If not, then the lowering of water quality is not warranted. If, on the other hand, the pollution controls will interfere with development, then the

[2] The *Water Quality Standards Handbook* is available at http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm (last accessed December 5, 2011) and incorporated here by reference.
[3] The Interim Guidance referenced here is available at http://water.epa.gov/scitech/swguidance/standards/economics/chaptr5.cfm (last accessed December 5, 2011) and incorporated herein by reference.

> review must show that the development would be an important economic and social one.
>
> The interim guidance describes the various steps involved in performing an economic impact analysis as a part of the antidegradation review. These steps include: the calculation of annual pollution control project costs and the development of total annualized costs on per household basis; financial analysis to determine if lower water quality is "necessary"; and determination of whether economic and social development would be important. The interim guidance provides detailed discussion on each step specific to both public-sector developments and private-sector projects.

The IPCB concluded in *New Lenox* that IEPA had failed to fully analyze pollution control alternatives, or to provide this level of economic analysis of the impact of installing such controls, and accordingly found the antidegradation analysis to be insufficient.

Here, as discussed below, the cursory antidegradation discussion provides virtually none of the analysis required under 35 Ill. Adm. Code § 302.105(c) as further defined in *New Lenox*; and the application did not contain the information required under § 302.105(f) to support the Agency's analysis.

A. Identification and Quantification of the Increased Pollutant Load was Inadequate

The Applicant did not provide, and IEPA did not require, a meaningful "Identification and quantification of the proposed load increases for the applicable parameters and of the potential impacts of the proposed activity on the affected waters" pursuant to § 302.105(f)(1)(B). The Applicant provided laboratory results concerning FGD waste from another of its coal-fired power plants, evidently as a proxy for the spray dryer absorber ("SDA") waste mixed with mercury-contaminated ACI sorbent waste proposed to be discharged to the east ash pond. However, the only information provided by the Applicant concerning the actual increased load to the receiving waterbody resulting from the ACI-contaminated waste discharge to the east ash pond is set forth in the memorandum from Mark Liska to Bob Mosher of IEPA dated September

1, 2010 ("Liska Memo"). In that memorandum, the Applicant states that up to 0.6 lbs *per day* of mercury are expected to be added to the east ash pond in connection with discharges from the new ACI system. Yet the only description of the increased loading provided is the following paragraph:

> The facility submitted a document to substantiate theories concerning the behavior of the mercury removed from the air emissions through carbon addition and deposited in the ash pond. Activated Carbon Injection: Effect on Simulated Fly Ash Sluice Water, by the Electric Power Research Institute, March, 2007 is a report on measurements of mercury and other substances in fly ash sluice water containing added carbon. The report concludes that "mercury captured from the flue gas by the carbon is generally stable and does not leach out during simulated sluicing processes" (page 2-3). This document also sites [sic] a USEPA document Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control, February 2006, EPA-600/r-06/008 that stated that mercury is "strongly retained by the coal combustion residues and unlikely to be leached at levels of environmental concern."

This language was incorporated nearly word for word into IEPA's antidegradation analysis set forth in the Fact Sheet. *See* Fact Sheet at 4.

This cursory description of the proposed increased loading provided by the Applicant wholly fails to meet the requirements of § 302.105(f)(1)(B). As an overall matter, it provides no actual identification and quantification at all. Rather, it merely amounts to a statement that any increase in mercury discharge from Outfall 005 resulting from the increased loading to the east ash pond will be insignificant and/or non-existent (it is not clear which is claimed) because the mercury is captured and retained in the coal combustion residues and is "generally stable" and "expected to stay" there. The Applicant, however, cannot have it both ways. If the Applicant's contention is that there will be no increased loading of mercury at all, then it needs to demonstrate that contention conclusively as a reason why antidegradation analysis is not necessary – which it clearly has not done with one citation to an industry-sponsored preliminary

laboratory-scale study (see *infra*) providing general assurances of the benign fate of the large daily infusion of mercury. If, on the other hand, there will be potential increased loading, then the identification and quantification requirements of § 302.105(f)(1)(B) must be adhered to. The Applicant must specify its best scientifically sound estimate of the increased loading of contaminants from Outfall 005 that will result from discharge of the ACI-contaminated waste into the east ash pond.

Second, the cursory waste loading description provided by the Applicant references only mercury, and not the other contaminants associated with ACI-related waste. In recent USEPA guidance addressing NPDES permitting requirements for wastewater discharges from flue gas desulfurization ("FGD") systems (reasonably comparable to waste produced to ACI systems[4]) and coal combustion residual ("CCR") impoundments (*i.e.*, ash ponds) at steam electric power plants, USEPA specifically identified contaminants in addition to mercury likely to be associated with such discharges.[5] Specifically, the memorandum states,

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[4] We note, in this regard, that the Applicant provided laboratory results concerning FGD waste from another of its facilities (Baldwin) as part of its antidegradation analysis concerning the ACI waste stream. Moreover, USEPA analysis indicates that ACI waste will likely contain greater concentrations of mercury and other pollutants than FGD waste. *See Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control*, February 2006, EPA-600/r-06/008 at 9:

> The properties of fly ash and scrubber residues from many facilities are likely to change as a result of enhanced air pollution controls for reducing mercury stack emissions. Changes in CCR properties will include increased content of mercury and other co-collected metals (e.g., arsenic, selenium) and the presence of injected sorbent or other chemical modifiers to improve mercury removal.

In view of the similarity in purpose and function of ACI and FGD systems, and the comparable content of mercury and other metals removed by these types of equipment, the Applicant and Agency would need to demonstrate relevant differences between them in order to claim that USEPA's information concerning control of FGD wastewater is not relevant to control of ACI wastewater. Neither has made any effort to do so in the record thus far. To the extent such information concerning differences between the two waste streams may exist and be added to the record, Commenters must be allowed to review and respond to it before issuance of any final permit given the critical importance of this issue to evaluation of the adequacy of the analysis underlying the Draft Permit.

[5] With respect to the environmental impact of these pollutants, in its *Steam Electric Power Generating Point Source Category: Final Detailed Study Report* (821-R-09-008) 169 (Oct. 2009),[5] USEPA stated as follows:

> [a]n increasing amount of evidence indicates that the characteristics of coal combustion wastewater have the potential to impact human health and the environment. Many of the common pollutants found in coal combustion wastewater (e.g., selenium, mercury, and arsenic) are known

> The FGD system works by contacting the flue gas stream with a liquid slurry stream containing a sorbent. The contact between the streams allows for a mass transfer of sulfur dioxide as it is absorbed into the slurry stream. Other pollutants in the flue gas (e.g., metals, nitrogen compounds, chloride) are also transferred to the scrubber slurry and leave the FGD system via the scrubber blowdown. Depending upon the pollutant, the type of solids separation process and the solids dewatering process used, the pollutants may partition to either the solid phase (i.e., FGD solids) or the aqueous phase. FGD wastewaters generally contain significant levels of pollutants, including bioaccumulative pollutants such as arsenic, mercury, and selenium. The FGD wastewaters also contain significant levels of chloride, total dissolved solids (TDS), total suspended solids (TSS), and nitrogen compounds.

Memorandum from James A. Hanlon of EPA's Office of Water to EPA Water Division Directors, dated June 7, 2010 ("Hanlon Memo"),[6] at Attachment A.[7] An earlier USEPA study specifically concerning ACI systems also identified associated increases in selenium and arsenic in the CCRs.[8] Notwithstanding these clear findings by USEPA, none of the pollutants associated with sulfur dioxide removal technology other than mercury were evaluated in the antidegradation analysis.

> to cause environmental harm and can potentially represent a human health risk. Pollutants in coal combustion wastewater are of particular concern because they can occur in large quantities (i.e., total pounds) and at high concentrations (i.e., exceeding Maximum Contaminant Levels (MCLs)) in discharges and leachate to groundwater and surface waters. In addition, some pollutants in coal combustion wastewater present an increased ecological threat due to their tendency to persist in the environment and bioaccumulate in organisms, which often results in slow ecological recovery times following exposure.

[6] *Available at* http://www.epa.gov/npdes/pubs/hanlonccrmemo.pdf (last accessed December 5, 2011) and incorporated herein by reference.
[7] *Available at* http://www.epa.gov/npdes/pubs/steamelectricbpjguidance.pdf (last accessed December 5, 2011) ("Hanlon Memo Attachment A") and incorporated herein by reference.
[8] *Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control*, February 2006, EPA-600/r-06/008 ("USEPA Characterization"), *available at* http://nepis.epa.gov/Exe/ZyNET.exe/P1006ATD.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2006+Thru+2010&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C06thru10%5CTxt%5C00000014%5CP1006ATD.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL and incorporated herein by reference.

Third, the industry-sponsored study that provides the basis for the Applicant's purported identification and quantification of waste stream constituents was, by its own terms, very preliminary and inconclusive. The report summary specifically states,

> A series of laboratory tests were conducted to simulate fly ash sluicing and then settling of solids in an ash pond. *This investigation was a preliminary review of a small number of samples intended to identify potential issues and guide future research.*[9]

It is inappropriate for the Applicant, or the Agency, to proffer this highly preliminary and generalized data as a description of the proposed waste stream.

In this regard, that the one-line second-hand citation to a line in a USEPA document is equally insufficient.[10] The referenced document was not a study of the type of discharge outfall design at issue here, where a point source outfall from the ash pond discharges directly to a waterbody. Rather, the specific objective of the study was to "evaluate the potential for leaching to groundwater" of various metals. In any event, the cited statement is inconclusive, stating only in general terms that leaching is "unlikely." This document, like the EPRI study, also reflects laboratory-scale research only. Accordingly, it is not relevant or useful in assessing conditions specifically at the Facility's east ash pond, where, for instance, ACI wastes will be comingled with other preexisting CCR wastes. In any event, USEPA has since issued guidance (discussed below) determining that ash ponds are not the best available approach for controlling pollutant discharges from CCR, as they do not effectively remove dissolved contaminants from wastewater.[11]

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[9] *Activated Carbon Injection: Effect on Simulated Fly Ash Sluice Water*, Electric Power Research Institute, March, 2007, at v.
[10] The citing reference is to USEPA Characterization, *supra*.
[11] Hanlon Memo Attachment A at 3.

IEPA should not have determined that the application for the Draft Permit was complete in the absence of full information identifying and quantifying the proposed load increases as required by 35 Ill. Adm. Code § 302.105(c). By the same token, since IEPA was required to consider the loading identification and quantification information in its antidegradation determination (35 Ill. Adm. Code § 302.105(f)(2)(B)), it should not have rendered its determination in the absence of complete information. Moreover, in the absence of complete information quantifying the proposed increased loading, it was impossible for either the Applicant or IEPA to fulfill their companion duty to identify and quantify "potential impacts of the proposed activity on the affected waters" (35 Ill. Adm. Code § 302.105(f)(1)(B)). Without knowing exactly what is in the increased discharge, it is impossible to know what impact this mystery discharge will have on the receiving waterbody; and the Draft Permit reflects no serious effort on the part of either the Applicant or the Agency to find out.

We therefore request that IEPA reverse its determination that the application for the Draft Permit is complete, and require the Applicant to submit complete information identifying and quantifying the proposed load increases.

B. Analysis of Pollution Control Alternatives was Inadequate

As discussed above, IEPA is required under the Illinois antidegradation regulations to both determine whether the proposed increased loading is "necessary" to accommodate important economic or social development; and to assure that "all technically and economically feasible measures" to avoid or minimize the proposed increase have been taken. 35 Ill. Adm. Code § 302.105(c)(1), (1)(B)(iii). As the IPCB made clear in *New Lenox*, these required determinations must rest on a thorough analysis of available pollution control alternatives, both economic and technical. The Board in that case rejected IEPA's contention that it need not

consider add-on technology controls, and could instead limit its review to "proven treatment technology, alternative discharge locations, and modified design criteria," holding that in failing to consider add-on controls "IEPA did not meet the provisions of Section 302.105(c) relating to consideration of alternatives to the increased discharge." *New Lenox* at 27-28. With respect to the economic component of the alternatives evaluation, as discussed *supra*, the Board made clear in *New Lenox* that the comprehensive USEPA economic guidance applicable to antidegradation analysis must be followed.

The shreds of purported alternatives analysis provided by the Applicant and imported in substance into the Fact Sheet are devoid of even the basic indicia of effort to evaluate alternatives in the manner required by § 302.105 and *New Lenox.* The "Alternative Assessment" provided to IEPA by the Applicant by letter dated April 27, 2010 reads in its entirety as follows:

> Acid and pH adjustment (associated with the SDA residue and associated wastewaters) in the east ash pond is the most practical and least polluting method available. Transporting the wastewaters off-site, for pH adjustment, is both impractical and expensive.
>
> The mercury, adsorbed onto the activated carbon, cannot be segregated from the SDA residue and, therefore, must be disposed of with the SDA residue.
>
> Disposal of SDA residue on-site is environmentally acceptable, when compared to disposal off-site. Also, on-site disposal would reduce costs and possible adverse impacts, associated with transportation.
>
> It should be noted that the east ash pond system is lined.
>
> Other treatment or disposal alternatives, that would offer technical or economic advantages, do not exist.

Subsequently, in the Liska Memo, the Agency summarizes the Applicant's analysis as follows:

> Disposal of the mercury containing sorbent with the fly ash is necessary given that the mercury sorbent is mixed in with the other ash. Converting the power plant to a dry ash handling system is an alternative that was considered by the applicant. However, the existing lined East ash pond system has considerable useful life remaining as an ash storage facility. Dynegy estimates that several

> years of capacity remains to accept sluiced ash. Abandoning this considerable existing investment is not a reasonable alternative. When the ash pond system becomes full, Dynegy will consider the alternatives for ash disposal available at that future time and dry ash landfilling will be a topic of discussion.

The "Assessment of Alternatives for Less Increase in Loading or Minimal Environmental Degradation" in the Fact Sheet reiterates the information in the Liska memo word for word, and concludes, "Therefore, no feasible alternatives exist for the changes proposed." Fact Sheet at 4-5.

Both the Applicant's and the Agency's discussion are utterly lacking in the substantive factual analysis necessary to meet alternatives analysis requirements; and where they provide any analysis at all, it is demonstrably wrong.

First, the analysis does not include an evaluation of the available pollution control technology described in detail by USEPA in the Hanlon Memo Attachment A, nominally applicable to FGD waste streams but in substance applicable to ACI-contaminated discharges in whole or part. The Memo makes clear that discharge of air pollutant removal waste into settling ponds is neither the only nor the best method of controlling this waste stream. It states:

> Historically, power plants have relied on settling ponds to treat FGD wastewater because NPDES permits generally focused on controlling suspended solids for this waste stream. In recent years, physical/chemical treatment systems and other more advanced systems have become more widely employed as effluent limits for metals and other pollutants have been included in permits. . . . For metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction. Technologies more advanced than settling ponds are available and more effective at removing both soluble and particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids. Therefore, although each permit is case-specific, EPA expects as a general matter that settling ponds are unlikely to represent the BAT for control of pollutants in FGD wastewater, given that more effective treatment technologies have been demonstrated to reduce pollutants in FGD wastewater.

***

> Seven power plants in the U.S. are operating or constructing treatment with a biological treatment state to supplement the metals removals with substantial additional reductions of nitrogen compounds and/or selenium. Three of these systems use a fixed film anoxic/anaerobic bioreactor optimized to remove selenium from the wastewater.

Hanlon Memo Attachment A at 3-4. The Applicant's alternatives analysis, incorporated wholesale and uncritically by the Agency, considers essentially two alternatives: conversion to a dry ash handling system and transport offsite. It mentions nothing of the physical/chemical treatment systems described in the Hanlon Memo Attachment A. In this regard, the Applicant's statement that "The mercury, adsorbed onto the activated carbon, cannot be segregated from the SDA residue" is wrong in view of the clear description in Attachment A of methods to achieve precisely that:

> Physical/chemical treatment (i.e., chemical precipitation) is used to remove metal compounds from wastewater. Chemicals are added to the wastewater in a series of reaction tanks to convert soluble metals to insoluble metal hydroxide or metal sulfide compounds, which precipitate from solution and are removed along with other suspended solids. An alkali, such as hydrated lime, is typically added to adjust the pH of the wastewater to the point where metals precipitate out as metal hydroxides.

Hanlon Memo Attachment A at 3-4. Regardless of whether it is possible to separate the activated carbon from the SDA, it is clear that processes exist to segregate the mercury itself. The Applicant and Agency are required to evaluate those processes in full.

Second, neither the Applicant nor the Agency considers technical alternatives for treatment of pollutants other than mercury. The Hanlon Memo Attachment A makes clear that there are treatment methods available to remove not only mercury, but other metals such as selenium and other pollutants such as nitrogen and total dissolved solids. These treatment methods should have been included in the alternatives analysis.

Third, the cursory references to economic considerations do not even come close to the level of economic analysis required under the antidegradation regulations as interpreted by the Board in *New Lenox*. The sole economic justification for failure to pursue even the limited set of identified alternatives is that the Applicant has a "considerable investment" in the existing ash pond system, and asking it to abandon that investment is therefore "not a reasonable alternative." This conclusory statement quite obviously falls short of the standard set forth in USEPA's interim economic guidance for antidegradation decision making. *See New Lenox* at 26, referencing the interim guidance.[12] The interim guidance provides very specific direction as to the steps that must be followed in antidegradation economic analysis:

> The following sections describe the steps involved in performing an economic impact analysis as part of an antidegradation review. These steps are outlined in Figure 5-1. The analytic approach presented here can be used for a variety of public-sector and private-sector entities, including POTWs, commercial, industrial, residential and recreational land uses, and for point and nonpoint sources of pollution. The guidance provided in this chapter, however, is not meant to be exhaustive. The State and/or EPA may require additional information or tests. In addition, the applicant should feel free to include any additional information they feel is relevant. The steps described in further detail in the rest of the chapter are:
>
> - **Verify Project Costs and Calculate the Annual Cost of the Pollution Control Project** - This section describes the factors considered when verifying that the proposed pollution control project is the most appropriate solution and the type of information that should be provided about the proposed project. It discusses how to annualize capital costs of the project and calculate total annual costs of the pollution control project.
> - **Determine if Requirements would Interfere with Development (i.e., lower water quality is "necessary") -** This section describes the types of financial tests that should be used to determine if maintaining the high quality water would interfere with the development.
> - **Determine if Economic and Social Development would be Important** - This section presents factors to be considered in determining whether the development would be important from an economic and social point of view.[13]

[12] Available at http://water.epa.gov/scitech/swguidance/standards/economics/chaptr5.cfm (last accessed December 5, 2011).
[13] *Id.* at 1-2.

The Agency should reverse its determination that the Draft Permit application was complete in the absence of this information and analysis, and should require that the Applicant provide it. The Agency must then consider this information in its alternatives analysis pursuant to 35 Ill. Admin. Code § 302.105(c) and (f).

In sum, it was unlawful for the Agency and the Applicant to reject alternative treatment technologies merely on the ground that the Applicant does not wish to pay for them, and to ignore others that USEPA has found to be feasible and available. Nor is it allowable to kick the discussion of alternatives back to some indefinite later date, allowing that "Dynegy will consider the alternatives for ash disposal available at that future time, and dry ash landfilling will be a topic of discussion." Fact Sheet at 5. And the fact that the mercury and other contaminants at issue are being removed from air emissions is not grounds under the law for declining to consider alternative means to minimize water emissions. The antidegradation regulations are clear that no matter what the social benefits of a project, alternatives analysis is still necessary to minimize its impact on water quality.

II. IEPA Has Failed to Perform BPJ Analysis to Determine BAT for the Applicant's Discharge

Separate and apart from the antidegradation requirement that the Applicant and IEPA evaluate alternative pollution control technologies, IEPA was also required under the CWA to establish a discharge limit for the east ash pond CCR waste stream, including the ACI-contaminated waste that will be discharged there, based on a determination of best available technology ("BAT"). The record reflects no attempt to do so by IEPA, and the permit contains no technology-based limit on discharge of mercury and other contaminants being discharged from the east ash pond. Moreover, the Applicant did not provide IEPA with information to

support a BAT determination. IEPA should not issue the final permit until the Applicant provides such information, and the appropriate BAT limits are put in place.

A. IEPA Failed to Impose BPJ-Derived BAT Limits as Required by the CWA

Sections 301 and 402 of the CWA, 33 U.S.C. §§ 1311 & 1342, require IEPA to establish numeric effluent limitations based on BAT for the Facility's east ash pond outfall, including its expected discharges of waste associated with the ACI, before issuing any NPDES permit that authorizes such discharges. *See* 33 U.S.C. § 1311(b)(2)(A)(i) (point sources "shall" achieve "effluent limitations" that "shall require application of" Best Available Technology ("BAT") to reduce pollutant discharges to the maximum extent "technologically and economically achievable," including "elimination of discharges of all pollutants" if it is achievable); *id.* § 1342(a)(1) (requiring that NPDES permits may only be issued "upon condition that" they ensure that, *inter alia*, the requirements in 33 U.S.C. § 1311 are met). Federal regulations promulgated by USEPA also require that "[t]echnology-based treatment requirements under Section 301(b) of the [CWA] represent the minimum level of control that *must be imposed*" in a NPDES permit. 40 C.F.R. § 125.3(a) (emphasis added). BAT is a stringent treatment standard that has been held to represent "a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges." *EPA v. Nat'l Crushed Stone Ass'n*, 449 U.S. 64, 74 (1980).[14] Because USEPA's applicable Effluent Limitation Guidelines ("ELGs") do not yet include BAT limits for wastewater from ACI systems,[15] USEPA regulations require IEPA to use

[14] Technology-based effluent limitations are a necessary minimum requirement for a permit "regardless of a discharge's effect on water quality." *Am. Petroleum Inst. v. EPA*, 661 F.2d 340, 344 (5th Cir. 1981); *see also PUD No. 1 Jefferson County v. Wash. Dep't of Ecology*, 511 U.S. 700, 704 (1994) (state water quality standards are "supplementary" to required individual TBELs) (citing *EPA v. Calif.* ex. rel. *Water Res. Control Bd.*, 426 U.S. 200, 205 n.12 (1976)); *Hooker Chems. & Plastics Corp. v. Train*, 537 F.2d 620, 623 (2d Cir. 1976) (CWA "predicate[s] pollution control on the application of control technology on the plants themselves rather than on the measurement of water quality.").

[15] While U.S. EPA has promulgated ELGs for the discharge of certain pollutants by facilities in the Steam Electric Power Generating Point Source Category, *see* 40 C.F.R. Part 423, these ELGs are long-overdue to be updated,

its Best Professional Judgment ("BPJ") to set BAT limits for these discharges. 40 C.F.R. § 125.3(c)(2), (d) ("to the extent that EPA-promulgated effluent limitations are inapplicable," NPDES permit writers "*shall apply* the appropriate factors listed in § 125.3(d)" to set case-by-case technology-based effluent limitations based on BPJ) (emphasis added); *see also* 327 IAC 5-5-2.[16]

As discussed in the previous section, IEPA has ample information available to it to set a BAT standard for CCR impoundments, and specifically for ACI-contaminated waste streams. The Hanlon Memo Attachment A explicitly describes available technologies to control FGD waste, which is sufficiently similar in character to allow a BPJ determination based upon it.[17] In this regard, we note that USEPA Region 4 recently rejected an argument that setting numeric effluent limitations for FGD wastewater is infeasible before the FGD comes online in two recent EPA letters commenting on NPDES permits for coal plants in Tennessee. Letter from Christopher B. Thomas, Chief, Pollution Control and Implementation Branch, Water Protection Division, EPA Region 4, to Paul E. Davis, Tennessee Department of Environmental Protection, regarding NPDES permit for Kingston Fossil Plant (Aug. 8, 2011) ("*Kingston NPDES Letter*") (Attachment 1); Letter from Christopher B. Thomas, Chief, Pollution Control and Implementation Branch, Water Protection Division, USEPA Region 4, to Paul E. Davis,

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having not been updated since 1982. In fact, U.S. EPA expressly noted in 1982 that it was reserving "flue gas desulfurization waters" for "future rulemaking." Steam Electric Power Generating Point Source Category; Effluent Limitations Guidelines, Pretreatment
Standards and New Source Performance Standards, 47 Fed. Reg. 52,290, 52,291 (Nov. 19, 1982).

[16] The use of the word "shall" in both the federal statute and regulations does not leave IEPA with any discretion as to whether technology-based effluent limitations should be established. *See Bennett v. Spear*, 520 U.S. 154, 172 (1997) (the imperative "shall" makes clear that the agency action specified is obligatory, not discretionary); *see also Alabama v. Bozeman*, 533 U.S. 146, 153 (2001) ("The word 'shall' is ordinarily the language of command.") (internal quotations and citations omitted).

[17] As discussed *supra*, the Applicant compares FGD waste to its anticipated ACI-related waste stream in the context of the antidegradation analysis. The record reflects no evidence that IEPA has even attempted to apply the information available in the Hanlon Memo Attachment A to ACI-related discharges. To the extent it may do so in response to these comments, Commenters are entitled to review and comment on that new analysis prior to issuance of a final permit.

Tennessee Department of Environmental Protection, regarding NPDES permit for Gallatin Fossil Plant (Aug. 11, 2011) (Attachment 2). In both cases the state permitting agency had determined that setting TBELs was infeasible, and in both cases USEPA disagreed. *See, e.g.*, Kingston NPDES Letter ("The EPA believes that there is available, existing effluent data . . . to make informed judgments regarding appropriate TBELs. Even with limited data, the EPA's view is that it is feasible to calculate TBELs. The EPA's Appeals Board has supported this interpretation in several decisions."). The letters recommend that "monitoring only requirements for metals . . . be replaced with technology-based effluent limits (TBELs). . . ." *See id.* The letters also state that if a permitting agency determines that existing treatment technologies represent the best available technology, then TBELs should be set based on the ability of that system to reduce pollutant discharges. *See id.*

In addition, USEPA Region 1 recently proposed numeric effluent limitations for FGD wastewater discharges in a draft permit for Public Service of New Hampshire's Merrimack Station in Bow, NH without any monitoring data specific to the plant itself. *See* USEPA Region 1, *Determination of Technology-Based Effluent Limits for the Flue Gas Desulfurization of Wastewater at Merrimack Station in Bow, New Hampshire*, at 31 (Sept. 2011) (noting that "[n]either Merrimack Station's wet FGD scrubber system nor its proposed FGD WWTP is yet operational" and thus that "EPA does not have actual data for characterizing the untreated FGD purge from Merrimack Station operations").[18] In developing the proposed numeric effluent limitations for the plant, USEPA used multiple sources, including the analyses of two other plants that used the same treatment system, to set numeric limits for arsenic, chromium, copper, mercury, selenium and zinc in the FGD scrubber wastewater. *See id.* at 30-49.

[18] *available at* http://www.epa.gov/region1/npdes/merrimackstation/pdfs/MerrimackStationAttachE.pdf (last accessed December 6, 2011), incorporated herein by reference.

As USEPA has done, so too must IEPA use "all available information," including USEPA guidance, as well as permits and data for other facilities, in order to "carry out the provisions of the [CWA]" by establishing numeric effluent limitations based on BAT to control discharges of pollutants from the Facility's east ash pond, including discharges associated with the ACI retrofit once it is completed. 40 C.F.R. § 125.3(c)(2)(i), (c)(3); *see also* 33 U.S.C. § 1311(b)(2)(A)(i). In addition, IEPA must also gather sufficient information to ensure that, even after technology-based effluent limitations are applied, discharges from the east ash pond do not cause violations of water quality standards in the Illinois River. 33 U.S.C. § 1311(b)(1)(A); 40 C.F.R. § 122.44(d); *see also Waterkeeper Alliance v. EPA*, 399 F.3d 486, 492 (2nd Cir. 2005).

B. The Applicant Failed to Provide IEPA with a Complete Application With Information to Support a BPJ-Derived BAT Limit for ACI-Related Waste Discharges

IEPA cannot lawfully authorize discharges from the Facility's east ash pond until the Applicant provides IEPA with a complete application, consistent with federal and state requirements, that provides a sufficient basis for IEPA to set numeric effluent limitations on those new discharges. A CWA permitting body, at a minimum, "[must] not issue a permit before receiving a complete application." 40 C.F.R. § 122.21(e); *see also* 327 IAC 5-3-2(d) ("no NPDES permit . . . shall be issued until the applicant has filed a complete application . . . ."). A complete NPDES permit application for discharges from an existing industrial manufacturing facility will include for each outfall: "a narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent . . . ; the average flow which each process contributes; and a description of the treatment the wastewater receives," 40 C.F.R. § 122.21(g)(3), and either a quantitative or narrative description of pollutants the applicant expects to be discharged, *id.* § 122.21(g)(7)(vi)(A). Where, as here, an existing facility

is applying for permission to commence a new discharge (in this case, ACI-contaminated wastewater), the Applicant must similarly provide information about the "[e]xpected treatment of [the] wastewater," *id.* § 122.21(k)(3), provide information about the anticipated "effluent characteristics," including "estimated daily maximum, daily average, and source of information" for a range of pollutants and parameters, *id.* § 122.21(k)(5), as well as provide information regarding "the existence of any technical evaluation concerning his wastewater treatment, along with the name and location of similar plants of which he has knowledge," *id.* § 122.21(k)(6).

The application for the Draft Permit is incomplete because it does not adequately describe the ACI retrofit and does not provide all of the information required by 40 C.F.R. § 122.21 for the Outfall 005 discharge. As discussed in the previous section, the application contains no meaningful information describing and characterizing the proposed discharge of ACI-contaminated wastewater to the receiving waterbody, aside from vague assurances that the 0 - 0.6 lbs of mercury deposited daily are "expected" to stay in the settled ash pond, and are "generally" stable. Fact Sheet at 4.

To the extent IEPA's failure to establish BPJ-derived BAT limits on the ACI-contaminated east ash pond discharge is related to the Applicant's failure to provide such information in its application, IEPA should request a completed application from the Applicant. What IEPA cannot lawfully do, however, is to authorize discharges for which it lacks sufficient information to establish appropriate effluent limitations (whether technology-based or water quality-based). IEPA's issuance of a permit to discharge under these circumstances would run contrary to the most fundamental requirement of CWA that "the discharge of any pollutant . . . shall be unlawful" unless, in pertinent part, the discharge is authorized by a NPDES permit that conforms to federal statutory and regulatory requirements. 33 U.S.C. §§ 1311(a), 1342. IEPA

may not lawfully finalize the Draft Permit until it has obtained a complete application from the Applicant to ensure full compliance with both BAT requirements and water quality standards.

Conclusion

For at least the foregoing reasons, IEPA must either deny the application for the Facility's NPDES permit, or at a minimum substantially revise the Draft Permit and provide the public with a new opportunity to review and comment on it. If you have any questions, please contact Ann Alexander at 312-651-7905 or aalexander@nrdc.org.

Thank you for providing us with this opportunity to comment.

ATTACHMENT 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 8 2011

Mr. Paul E. Davis
Director, Division of Water Pollution Control
Tennessee Department of Environment
and Conservation
6th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1534

Dear Mr. Davis:

On October 27, 2010, the Environmental Protection Agency received the draft National Pollutant Discharge Elimination System (NPDES) permit for the Tennessee Valley Authority (TVA) Kingston Fossil Plant, NPDES permit number TN0005452, which expired on August 31, 2008, and is being administratively continued. We provided comments to the Tennessee Department of Environment and Conservation (TDEC) in a letter dated October 27, 2010. On June 2, 2011, we received the proposed NPDES permit for the Kingston Plant. Following significant comments TDEC received during the permit's public notice period, a proposed permit was sent to us on June 2, 2011 (via email). In a letter dated June 14, 2011, to you, we requested up to 90 days to review the proposed permit in accordance with Section IV.B.6.c. of the Tennessee/EPA Memorandum of Agreement.

The plant discharges occur at mile 2.9 in the Clinch River. This segment is on Tennessee's Clean Water Act (CWA) Section 303(d) list for mercury, chlordane and polychlorinated biphenyls and has the following uses: Domestic Water Supply, Fish and Wildlife, Recreation, Navigation, Irrigation, and Livestock Watering. There are several drinking water intakes downstream of the Kingston plant; the closest one (Rockwood Water System) is approximately 16 miles downstream. Due to the high public interest regarding the impact of discharges from this facility, the fact that the receiving water body is classified as a source for drinking water and is listed for mercury, the proximity of several downstream drinking water intakes, and because the permit lacks an enforceable schedule of compliance addressing TVA's plans to reduce discharge volumes for both the ash and flue gas desulfurization (FGD) sedimentation ponds, the permit should be more stringent. As outlined below, we recommend the monitoring only requirements for metals discharged from outfalls 001 and 02A (internal outfall formerly permitted under NPDES permit number TN0080870) be replaced with technology-based effluent limits (TBELs), which we anticipate will be more stringent than any water-quality based effluent limits.

The proposed permit allows discharges from five outfalls. However, 99 percent of the discharges from the plant come from Outfall 001 (approximately 40.5 million gallons per day (MGD)) and Outfall 002 (approximately 1296 MGD which includes internal outfall 02A). In addition to fly ash and bottom ash sluice water, Outfall 001 also discharges the following wastewaters, most of which contain metals:

ATTACHMENT B

storm water runoff, fire protection flushes and groundwater, coal yard runoff pond discharges including utility building drainage, coal pile and coal conveyor drainage, red water wetlands discharges, precipitator area washdown and roof drains, station sump discharges including boiler leakage, laboratory and analytical process water, boiler blowdown, miscellaneous equipment cooling and lubricating water, floor washing wastes, air conditioning cooling water, induced draft fan cooling water, ash system leakage and boiler bottom overflow, water treatment plant wastes, ammonia storage runoff, treated chemical and nonchemical metal cleaning wastes from internal outfall 005 and nonchemical metal cleaning wastes. Based on TDEC's reasonable potential analysis, the permit contains monthly average monitoring requirments for several metals, including: aluminium, antimony, arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, thallium and zinc. Outfall 002 discharges stormwater and treated FGD wastewater from internal outfall 02A (approximatley 1 MGD), as well as once through condenser cooling water, storm water runoff, groundwater, raw water leakage and fire protection flushes, intake screen backwash and boiler blowdown. In addition to limits and monitoring requirements for other parameters, the permit requires TVA to report the daily maximum and monthly average values for the following metals: arsenic, cadmium, copper, lead, nickel, selenium, thallium, zinc and mercury.

According to information contained in the permit rationale, TVA has plans to reduce the volume of wastewater (with concurrent metals loadings) from Outfalls 001 and 02A by mid-year 2013. Specifically, current plans call for the ash pond discharge to be reduced from 40.5 to 15.3 MGD by January 2013, which will result in a reduction of approximately 80 percent of the current metals loadings. TVA also plans to dewater the FGD slurry by end-of-year 2012, which should markedly reduce flows and metal loadings from internal outfall 02A. However, TVA is not required to do this under the terms and conditions of the proposed permit.

The NPDES permit must include numeric TBELs for the FGD pond (outfall 02A) as required by the CWA and implementing regulations. CWA Section 301(a)(1) requires that permits include limitations based on the application of statutorily prescribed levels of treatment ("technology-based effluent limitations"). Where the EPA has not promulgated technology-based effluent guidelines for a particular class or category of industrial discharger, or where the technology-based effluent guidelines do not address all waste streams or pollutants discharged by the industrial discharger, the permitting authority must establish TBELs on a case-by-case basis in individual NPDES permits, based on its best professional judgment or "BPJ."

TDEC did not establish TBELs, citing it was infeasible to do so due to limited data, the variability of the discharges, and lack of information in the EPA's 2009 Study. In lieu of establishing TBELs, the Best Management Practices (BMPs) language in Part IV of the permit states that within 60 days of the effective date, TVA "should" establish BMPs based on guidance in Attachment 1 and submit the BMP plan to TDEC for review. There are several elements to this language that present enforcement challenges. First, the word "should" should be replaced with the word "shall." Second, for clarity, the language should read "Attachment 1 to the permit Rationale for this permit, which has been incorporated as part of this permit." Third, the BMP Plan conditions in item F of Attachment 1 do not specifically address how effectiveness of the BMPs will be measured. Moreover, the EPA does not agree with

TDEC's statement regarding the infeasibility of determining numeric TBELs. The EPA believes there is available, existing effluent data in the permit applications for the Kingston plant, as well as other TVA facilities, to make informed judgments regarding appropriate numeric TBELs. Even with limited data, the EPA's view is that it is feasible to calculate TBELs. The EPA's Appeals Board has supported this interpretation in several decisions.

In October 2009, the EPA completed a study of wastewater discharges from both FGD and Coal Combustion Residuals impoundments (i.e., ash ponds). Findings indicate the need for revised effluent guidelines (EGL) for these wastestreams due to the potential for metals to exist in relatively high concentrations. The Agency plans to promulgate a revised EGL in 2013. In order to address these discharges during the interim period, on June 7, 2010, the EPA issued guidance entitled "*National pollutant Discharge Elimination System (NPDES) Permitting of Wastewater Discharges from Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) Impoundments at Steam Electric Power Plants.*" As described in Appendix A of that guidance, the applicable Steam Electric Power Generating ELG and standards promulgated in 1982 did not consider the FGD wastestream. Thus, TBELs based on BPJ to address FGD wastewater at steam electric power plants are appropriate. To assist in the development of such limits, the guidance mentioned above provides state permitting authorities with information on how to establish TBELs based on BPJ to address FGD wastewater at steam electric power plants.

Additionally, the record for the 1982 ELG indicates that best available technology (BAT) was not established for fly ash or bottom ash transporter water in the final 1982 rule. These wastewaters discharge from CCR impoundments. Thus, BAT-based limits would currently need to be established through BPJ for discharges from CCR impoundments.

Based on our review of the fact sheet, TDEC's BPJ BAT analysis did not consider the economic factors, as required by 40 Code of Federal Regulations (CFR) § 125.3(d)(3)(v), including the comparison and level of reductions of metals from using treatment options other than sedimentation such as chemical precipitation, biological treatment, or zero discharge, which were identified in the EPA June 7, 2010, memorandum. Additionally, the analysis failed to establish appropriate TBELs as required by CWA § 301(a)(1) and applicable federal regulations at 40 CFR § 125.3 (applicable to state NPDES permit programs per 40 CFR § 125.25). Therefore, TDEC should reconsider the guidance and the obligations under CWA § 301 in this permit reissuance by evaluating the costs for TVA to install, at a minimum, chemical precipitation and/or biological treatment for the ash and FGD pond discharges in order to reduce the effluent discharge of metals. If the revised analysis still concludes that the existing ponds are BAT (especially given that TVA's current plans are to reduce wastewater discharges from the ponds within two years), TDEC could establish TBELs that reflect the performance of these ponds using

reported effluent characteristic data for metals contained in the facility's Discharge Monitoring Reports and/or recent permit application. If you have any questions, please contact Ms. Karrie-Jo Shell of my staff at (404) 562-9308.

Sincerely,

Christopher B. Thomas, Chief
Pollution Control and Implementation Branch
Water Protection Division

cc: Ms. Linden P. Johnson
Manager, Water Permitting and Compliance
TVA - Environmental Affairs

ATTACHMENT B

ATTACHMENT 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 1 1 2011

Mr. Paul E. Davis
Director, Division of Water Pollution Control
Tennessee Department of Environment
and Conservation
6th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1534

Dear Mr. Davis:

On May 19, 2011, the Environmental Protection Agency received for renewal the draft National Pollutant Discharge Elimination System (NPDES) permit for the Tennessee Valley Authority (TVA) Gallatin Fossil Plant, NPDES permit number TN0005428, which expired on November 29, 2009, and is being administratively continued. In a letter to you dated June 14, 2011, we requested up to 90 days to review the proposed permit in accordance with Section IV.B.6.c. of the Tennessee/EPA Memorandum of Agreement. We have completed our review and offer the following comments:

1. Technology-Based Limits for the Ash Pond

The NPDES permit must include numeric technology-based effluent limits (TBELs) for the ash pond (outfall 001) as required by the Clean Water Act (CWA) and implementing regulations. The CWA Section 301(a)(1) requires that permits include limitations based on the application of statutorily prescribed levels of treatment ("technology-based effluent limitations"). Where the EPA has not promulgated technology-based effluent guidelines for a particular class or category of industrial discharger, or where the technology-based effluent guidelines do not address all waste streams or pollutants discharged by the industrial discharger, the permitting authority must establish TBELs on a case-by-case basis in individual NPDES permits, based on its best professional judgment or "BPJ."

In October 2009, the EPA completed a study of wastewater discharges from both Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) impoundments (i.e., ash ponds). Findings indicate the need for revised effluent guidelines (EGL) for these wastestreams to due to the potential for metals to exist in relatively high concentrations. The Agency plans to promulgate a revised EGL in 2013. In order to address these discharges during the interim period, on June 7, 2010, the EPA issued guidance entitled "*National Pollutant Discharge Elimination System (NPDES) Permitting of Wastewater Discharges from Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) Impoundments at Steam Electric Power Plants.*" The record for the 1982 ELG indicates that Best Available Technology (BAT) was not established for fly ash or bottom ash transporter water in the final

1982 rule. These wastewaters discharge from CCR impoundments. Thus, BAT-based limits would currently need to be established through BPJ for discharges from CCR impoundments.

Based on our review of the fact sheet, it does not appear that the Tennessee Department of Environment and Conservation (TDEC) examined pollutants expected to be present in the discharge from the CCR impoundment (i.e., ash pond) to establish appropriate TBELs as required by CWA § 301(a)(1) and applicable federal regulations at 40 Code of Federal Regulations (CFR) § 125.3 (applicable to state NPDES permit programs per 40 CFR § 125.25). Therefore, TDEC should reconsider the guidance and the obligations under CWA § 301 in this permit reissuance by evaluating the costs for TVA to install, at a minimum, chemical precipitation or biological treatment for the ash pond discharge in order to reduce the effluent discharge of metals. If the revised analysis still concludes that the existing pond is BAT, TDEC could establish TBELs that reflect the performance of the pond using reported effluent characteristic data for metals contained in the facility's Discharge Monitoring Reports and/or recent permit application.

2. Section 316(a) Report and the Study Plan for the Subsequent Permit

The draft permit lacks detail and does not generate information sufficient to support a CWA Section 316(a) variance determination for the next permit cycle. The EPA's comments are submitted in order to ensure that the study plan to be developed during the next permit cycle will generate information sufficient to support a determination of whether the TVA Gallatin Plant's thermal variance under Section 316(a) of the CWA can be approved.

The EPA recognizes that, under 40 CFR § 125.73(c), existing sources seeking variance renewal are not typically required to conduct the same detailed, comprehensive studies required under § 125.72(a) and (b). Also, under § 125.73, existing sources can base their demonstration on a lack of appreciable harm instead of completing predictive studies. However, under § 125.72(c), the type of detailed studies contemplated under § 125.72(a) and (b) can be required whenever determined to be necessary. After examining the record of prior 316(a) variance determinations for the TVA Gallatin Plant, the EPA has concerns regarding the need for a more thorough examination and definition of the Balanced and Indigenous Population (BIP), the identification of Representative Important Species (RISs), and a closer examination of whether the variance is protective. Given the thinness of the available record to justify prior variance determinations, the EPA believes a more focused study is needed. The EPA acknowledges that TVA has in the past collected a substantial amount of data in support of its variance. TVA may use existing data in completing its study and may incorporate the existence of such data into the study plan design; however, the existing data needs to be evaluated and presented in the context of a BIP definition that the existing record does not adequately provide.

Section 316(a) of the CWA contains the term "BIP" but does not define it. However, 40 CFR § 125.71(c) defines the term "balanced, indigenous community"[1] as:

> "A biotic community typically characterized by diversity, the capacity to sustain itself through cyclic seasonal changes, presence of necessary food chain species and by a lack of domination

[1] "Balanced, indigenous community" and BIP are equivalent terms.

by pollution tolerant species. Such a community may include historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, such a community will not include species whose presence is attributable to the introduction of pollutants that will be eliminated by compliance by all sources with section 301(b)(2) of the Act: and may not include species whose presence or abundance is attributable to alternative effluent limitations imposed pursuant to section 316(a)."

The Environmental Appeals Board stated in its decision in In Re Dominion Energy Brayton Point, LLC, 12 Environmental Appeals Decision (E.A.D.) 490 (2006)("Brayton Point"), "this definition clearly envisions a consideration of more than the population of organisms currently inhabiting the water body. In this vein, although it permits inclusion of certain 'historically non-native species' that are currently present, it explicitly excludes certain currently present species whose presence or abundance is attributable to avoidable pollution or previously-granted section 316(a) variances."

Page 557 of the Brayton Point E.A.D. goes on to further state that a BIP "can be the indigenous population that existed prior to the impacts of pollutants, not solely the current populations of organisms."

To the question of how a permittee should identify a BIP in an area that has been altered by impacts from an existing thermal discharge, the Brayton Point E.A.D. points out that it may be appropriate to use a nearby water body unaffected by the existing thermal discharge as a reference area. Examination of an appropriate reference area may be applicable in this case.

The definition of "balanced, indigenous community" at 40 CFR § 125.71(c) contains several key elements. To be consistent with the regulations, each of these key elements should be specifically addressed in the demonstration, and the Study Plan should be designed to generate information relevant to these elements. Those elements include: (1) "a population typically characterized by diversity at all trophic levels;" (2) "the capacity to sustain itself through cyclic seasonal changes;" (3) "presence of necessary food chain species;" (4) "non-domination of pollution-tolerant species;" and (5) "indigenous." Each of these elements is discussed in more detail below:

a. "A population typically characterized by diversity at all trophic levels" means that all of the major trophic levels present in the unaffected portion of the water body should be present in the heat-affected portions. The EPA recognizes that community structure differences will occur, however, the number of species represented in each trophic level in the unaffected portions should be reasonably similar in the heat-affected portions of the water body. Sampling and analysis of fish and invertebrate communities should be done such that the major trophic levels are identified and represented by reasonably similar species distributions. Also, the study plan should be expanded to include some observations of wildlife (i.e., water fowl, mammals, amphibians, etc.) both upstream and immediately downstream of the discharge point that may be impacted by the thermal discharge.

In keeping with the requirements of CWA Section 316, the plant needs to address the BIP's of the phyletic groups (amphibians, reptiles, birds, mammals) in the "wildlife" category. This group should be restricted to animals that are dependent on the receiving waters. For example, the blackbird population needs to be included but waterfowl or Kingfishers might be. Mammals that only drink from the receiving waters (i.e., whitetail deer) don't need to be included, but the beaver population might be. Once those BIPs are identified, the permittee should come up with a list of the wildlife species from all phyletic groups that may be affected by the temp changes in the receiving waters. The effects could be either direct or indirect depending on their dependence on the receiving water for habitat, food, etc. There may be several species of turtles present but some may be highly vulnerable and others not as much. The U.S. Fish and Wildlife Service and state wildlife agency can supply most, or all, of the information. Specifically, the plant should describe what effects the temperature changes might have on organisms that have habitats located near the point of discharge and depend on the receiving water body for survival. For example, amphibians can be affected directly in terms of survival and development of eggs and early life stages that are water dependent. Later, juvenile stages and adults could be affected by changes in prey items (food distribution) in the thermal affected area. All stages could be affected by increases in predation if warmer areas attract more predators. So for species for each group, the permittee needs to discuss the effects the thermal variance might have in regards to maintain a BIP of these organisms.

b. "The capacity to sustain itself through cyclic seasonal changes" means that any additional thermal stress will not cause significant community instability during times of natural extremes in environmental conditions. Community data should be collected during normal seasonal extremes as well as during optimal seasonal conditions. Data should be compared between heat affected and unaffected portions of the receiving water body to account for normal community changes corresponding with a change in season.

c. "Presence of necessary food chain species" means that the necessary food webs remain intact so that communities will be sustaining. We believe that exhaustive food web studies are not necessary provided that invertebrate, fish and wildlife communities are otherwise healthy, i.e., represented by sufficiently high species diversity and abundance (appropriate for that portion of the receiving water body) for the identified trophic levels and sustaining through normal seasonal changes.

d. "Non-domination of pollution-tolerant species" means that in the case of a thermal effluent, community assemblages in heat affected portions of the water body dominated by heat-tolerant species do not constitute a BIP. The EPA recognizes that because all species have varying levels of thermal tolerance, communities in the heat affected portions of the receiving water body may possess altered assemblages in terms of species present and abundance. All community data should be collected, analyzed and presented to clearly demonstrate that affected communities have not shifted to primarily heat tolerant assemblages.

e. "Indigenous" has been further clarified in the regulations: "Such a community may include historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, such a community will not include species whose presence is attributable to the introduction of pollutants that will be eliminated by compliance by all sources with section 301(b)(2) of the Act and may not include species whose presence or abundance is attributable to alternative effluent limitations imposed pursuant to section 316(a)." The EPA recognizes that non-indigenous species are present in most aquatic systems in the United States. All community data should be analyzed and presented to demonstrate that community assemblages in the heat-affected portions of the receiving water body are not significantly different from non-affected communities with regard to the number of non-indigenous species in the assemblages.

In addition to the foregoing components of the BIP definition, the Study Plan should also include provisions for the identification of RIS (e.g., a list of threatened, endangered, thermally sensitive, or commercially or recreationally valuable species up- and downstream of the study area), as contemplated in 40 CFR § 125.72(b). 40 CFR § 125.71(b) defines RIS as "species which are representative, in terms of their biological needs, of a balanced, indigenous community of shellfish, fish and wildlife in the body of water into which a discharge of heat is made."

The following EPA comments should be specifically addressed in the study plan prior to TVA commencing sampling. The plan should:

i) include available information on wildlife in the receiving water body areas based on communications with the state's wildlife agency. See item a) above.

ii) include a diagram depicting the thermal plume under the worst case scenario and address the presence or absence of a zone of passage for which fish can travel around the thermal plume.

iii) provide information of which fish collected are either heat-sensitive or nuisance species. See item d) above.

iv) provide a list of any receiving water body species that are endangered or threaten in accordance with federal and state regulations.

v) select more appropriate sampling locations in order to avoid data that is difficult to interpret.

vi) analyze and present data to clearly demonstrate that affected communities have not shifted to primarily heat tolerant assemblages.

vii) analyze and present all data to demonstrate that community assemblages in the heat-affected portions of the receiving water body are not significantly different from non-affected communities with regard to the number of non-indigenous species in the assemblages.

viii) include recent data or information on benthic macroinvertebrates. See item a) above.

To reiterate, in order to ensure that TVA's future Study Plan is adequate to demonstrate that the Gallatin Plant should get continuance of a Section 316(a) variance during the term of its next NPDES permit, the EPA requests the opportunity to review a draft 316(a) plan prior to TVA commencing the study. Note that the above study elements are required for all facilities subject to a thermal variance. If you have any questions, please contact Ms. Karrie-Jo Shell of my staff at (404) 562-9308.

Sincerely,

Christopher B. Thomas, Chief
Pollution Control and Implementation Branch
Water Protection Division

cc: Ms. Linden P. Johnson
Manager, Water Permitting and Compliance
TVA - Environmental Affairs

ATTACHMENT C

EXHIBIT 4

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SPRINGFIELD, ILLINOIS

IN RE:

DYNEGY MIDWEST GENERATION, INCORPORATED

HAVANA POWER STATION NPDES

INFORMATIONAL PUBLIC HEARING

NOVEMBER 8, 2011

I N D E X

E X H I B I T S

EXHIBITS FROM JOYCE BLUMENSHINE:

(EXHIBITS RETAINED BY HEARING OFFICER.)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SPRINGFIELD, ILLINOIS

IN RE:

DYNEGY MIDWEST GENERATION, INCORPORATED

HAVANA POWER STATION NPDES

INFORMATIONAL PUBLIC HEARING held, on the 8th day of November, 2011, between the hours of 6:00 P.M. and 7:36 P.M. of that day, at the Occasions banquet facility, 301 West Main Street, Havana, Illinois 62644, before Robin A. Enstrom, a Registered Professional Reporter, Certified Shorthand Reporter, and a Notary Public within and for the State of Illinois.

A P P E A R A N C E S

FOR ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:

Dean Studer, Hearing Officer

Mark E. Liska, Environmental Protection Engineer, Permit Section, Bureau of Water

Robert G. Mosher, Manager, Water Quality Standards Section, Bureau of Water

Deborah J. Williams, Assistant Counsel, Division of Legal Counsel

Court Reporter:
Robin A. Enstrom, RPR, CSR
Illinois CSR #084-002046
Midwest Litigation Services
15 S. Old State Capitol Plaza
Springfield, Illinois 62701
217.522.2211
800.280.3376

(Hearing began at 6:01 P.M.)

HEARING OFFICER: I've got one minute after 6:00; so we're going to go ahead and get started this evening.

Good evening. My name is Dean Studer, and I'm the Hearing Officer for the Illinois Environmental Protection Agency. On behalf of Interim Director John Kim and Bureau of Water Chief Marcia Willhite, I welcome you to tonight's hearing. My purpose tonight is to ensure that these proceedings run efficiently and according to rules.

This is an informational hearing before the Illinois EPA in the matter of a renewal of a National Pollutant Discharge Elimination System -- otherwise used by the acronyms NPDES -- permit for Dynegy Midwest Generating, Incorporated, Havana Power Station. The Illinois EPA has made a preliminary determination that the project meets the requirements for obtaining a permit and has prepared a draft reissued permit for review.

The authority for the Illinois EPA to reissue this permit is contained in Section 39 of the Illinois Environmental Protection Act, 415 ILCS 5/39. In pertinent part, this section reads, "It shall be

the duty of the agency to issue such a permit upon proof by the applicant that the facility, equipment, vehicle, vessel, or aircraft will not cause a violation of this act or of regulations hereunder.".

The decision by the agency in this matter will be based upon the technical merits of the application as it relates to compliance with this statute and regulations promulgated under it. The agency decision will not be based on how many people desire for the mod -- or for the reissued permit to be issued or on how many people desire for the permit not to be issued but rather on compliance with the law and regulations.

Issues at the hearing this evening will be limited to those associated with the reissuance of this permit. Mark Liska, permit engineer at the agency, will provide additional information on this permit reissuance in his opening remarks which will be made following my opening statement. Other issues relevant to tonight's hearing include compliance with the requirements of the federal Clean Water Act and the rules set forth in 35 Illinois Administrative Code, Subtitle C, the antidegradation analysis, potential impacts to receiving waters from the

proposed discharge, and water quality in the receiving waters.

Please note that issues dealing with the stability and integrity of the ash impoundments are not issues that are relevant to the NPDES permit. Authority to regulate these types of structures was not given to Illinois EPA but rather to the Illinois Department of Natural Resources. All structures that meet the definition of a dam as defined in the Illinois Administrative Code are regulated by the Department of Natural Resources, Office of Dam Safety.

The east ash pond at Havana is classified as a high hazard dam due to the location of dwellings located northeast of the impoundment. According to the Illinois DNR, the dam was inspected in 2010 and was found to be in compliance with existing regulations. The most recent inspection took place in October of 2011 and has not been submitted to the Office of Dam Safety as of yet. If you have questions on dam safety issues, please contact Paul Mauer with the DNR, Office of Dam Safety, at 217-782-4427.

The Illinois EPA is holding this hearing for the purpose of accepting comments from the public on the draft permit. This public hearing is being

held under the provisions of the Illinois EPA's Procedures for Permit and Closure Plan Hearings which can be found in 35 Illinois Administrative Code, Part 166, Subpart A, and in accordance with the requirements of Illinois Pollution Control Board NPDES regulations found at 35 Illinois Administrative Code, Section 309.115 through 309.119. Copies of these regulations are available at the Illinois Pollution Control Board website at www.ipcb.state.il.us or, if you do not have easy access to the web, you may contact me and I will get a copy for you.

An informational public hearing means exactly that. This is strictly an informational hearing. It is an opportunity for you to provide information to the Illinois EPA concerning the permit. This is not a contested case hearing.

I'd like to explain how tonight's hearing is going to proceed. First, I will have the Illinois EPA panel introduce themselves and provide a sentence or two regarding their involvement in this permit process. Then Permit Engineer Mark Liska from the Division of Water Pollution Control here at the Illinois EPA will speak regarding the draft permit. This will be followed by further instructions as to

how statements and comments will be taken during this hearing and as -- excuse me -- and as appropriate conduct during this hearing. Following these additional instructions, I will allow the public to speak.

If you have not signed a registration card at this point, please see Jay Timm, and he will provide you with one. You may indicate on the card that you would like to make oral comments tonight. Everyone completing a card legibly or providing their business card to Mr. Timm tonight will be notified when the Illinois EPA reaches a final decision in this matter. A responsiveness summary will be made available at that time.

In the responsiveness summary, the Illinois EPA will respond to all relevant and significant questions and issues that were raised at this hearing or submitted to me prior to the close of the comment period. The comment period in this matter will close on December 8, 2011. I will accept written comments as long as they are postmarked by December 8th.

Illinois EPA is committed to resolving outstanding issues and reaching a final decision in

this matter in an expeditious manner. However, the actual decision date in this matter will depend upon a number of factors, including the number of comments received, the substantive comment of those content -- of those comments and staff considerations, as well as other factors.

During tonight's hearing and during the comment period, relevant comments, documents, and data will also be placed into the record as exhibits. Please send all written documents or data to my attention, and that's at Dean Studer, Hearing Officer, regarding Havana Power Station NPDES, and that's at Illinois EPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276. This address is also listed on the public notice for this hearing. Please indicate the NPDES permit or reference the Havana Power Station NPDES on your comments to help ensure that they become part of this hearing record. The NPDES permit for this facility is IL0001571.

In addition, e-mail comments will be accepted if sent to epa.publichearingcom -- and that's e-p-a.p-u-b-l-i-c-h-e-a-r-i-n-g-c-o-m-@-i-l-l-i-n-o-i-s.g-o-v -- @illinois.gov. All e-mail comments should contain the words "Havana Power

Station NPDES" in the subject line of the e-mail to help ensure that they are included in the record in this matter. Please make sure that these words were spelled correctly as e-mails are electronically sorted and distributed and may not make it into the record if the words in the subject line are misspelled. When your e-mail arrives, the system should send you an automated reply if the e-mail was received before the comment period ends and the e-mail has been properly sorted and distributed.

Please note that the server can become quite busy in the minutes before the record closes. So you may want to take this into account when submitting your comments as electronic comments received at or after the stroke of midnight as the date changes from December 8 to December 9 will not be considered timely filed.

I have marked the following exhibits:

Public hearing notice is Exhibit 1.

The draft NPDES permit/public notice/fact sheet of May 11, 2011, is Exhibit 2.

Exhibit 3 is the hearing request received from Prairie Rivers Network and the Illinois Chapter of the Sierra Club, dated June 10, 2011, and that was

accompanied by a petition with 19 signatures on it.

The explanation of the corrected public notice, dated September 21, 2011, is Exhibit 4.

And exhibit 5 is an actual aerial photograph of the facility.

The corrected public notice/fact sheet/draft is Exhibit 6.

I will now ask the Illinois EPA panel to introduce themselves.

Mark Liska, permit engineer, will provide a brief statement regarding the permit application and the draft reissued permit once these staff members have introduced themselves.

Bob.

MR. MOSHER: I'm Bob Mosher. I'm in the water quality standards section, and I did the antidegradation review for this permit.

MR. LISKA: I'm Mark Liska. I am the permit engineer for this permit. I'm the permit writer.

MS. WILLIAMS: Good evening. I'm Debbie Williams, and I am assistant counsel for the Bureau of Water.

HEARING OFFICER: And, Mark, do you have

opening remarks that you would like to make?

MR. LISKA: Yes.

Good evening, ladies and gentlemen. Again, I'm Mark Liska. I'm the Illinois EPA permit engineer for the Dynegy Midwest Generation, Havana Power Plant, NPDES permit number IL0001571.

The discharges from this permit are -- consist of all of their cooling water, their ash pond water, miscellaneous process waters, and stormwater, and all discharge to the Illinois River.

Under Illinois and USEPA mandates, new air pollution controls were added to the plant recently. This will provide cleaner air and removes a significant amount of toxic substances and mercury from the air. The method for dealing with this mercury that has been added -- that has been removed from the air is to bind the mercury into an activated carbon sorbent before discharging it to the east ash pond. The mercury is expected to stay bonded in the sorbent in the settled ash in the pond and not discharge to the Illinois River.

The carbon sorbent is added in such a way that the majority of the fly ash will not have the mercury-sorbed carbon in it. Because of this, the

majority of the fly ash can be marketed for beneficial reuse. The permittee has an extensive network available and -- and to promote beneficial reuse of the fly ash in order to limit the amount that is needed to be put in the ash pond.

The east ash pond is the principal pond for all bottom ash, fly ash, spray dryer and mercury sorbent residue, and other small miscellaneous discharges. This -- the east ash pond is a lined pond that was built in the early 1990s. There are a number of groundwater monitoring wells in and around the east ash pond, and there have been -- so -- and there have been no exceedances in any toxic substances or any other parameters in the 20-plus years of its existence.

The current draft NPDES permit requires monitoring or limits to temperature, total suspended solids, oil and grease, mercury, chlorine, and a host of other metals and other parameters and requires an indurated stormwater pollution prevention plan for the entire site.

Thank you.

HEARING OFFICER: Thank you, Mark.

I'll go ahead and go through a few issues

regarding how I will accept comments this evening.

While the issues raised tonight may indeed be heartfelt concerns to many of us in attendance, applaud is not -- applause is not appropriate during the course of this hearing. On a similar note, hissing and jeering are also not appropriate and will not be tolerated during this hearing.

Secondly, statements made tonight are to relate to the issues involved with the reissuance of this permit. Specifically statements and comments that are of a personal nature or reflect on the character or motive of a person or group of people are not appropriate in this hearing. If statements or comments begin to drift into this area, I may interrupt the person speaking and ask that they proceed to their next relevant issue.

As Hearing Officer, I intend to treat everyone here tonight in a courteous, respectful, and professional manner. I ask that the public do the same. If the conduct of persons attending this hearing should become unruly, I am authorized to adjourn this hearing should the actions warrant. In such a case, the Illinois EPA would still accept written comments through the close of the comment

period which is December 8th.

Since we have a limited time in which to conduct this hearing, Illinois EPA staff members will be responding to the issues primarily for clarification purposes. We are here tonight to listen to environmental issues. You may disagree with or object to some of the statements and comments made tonight, but this is a public hearing and everyone has a right to express their comments on this matter.

Again, written comments are given the same consideration as oral comments received during this hearing and may be submitted to the Illinois EPA at any time within the public comment period which ends at midnight on December 8, 2011.

Although we will continue to accept comments through that date, tonight is the only time that we will accept oral comments. Any person who wishes to make an oral comment may do so as long as the statements are relevant to the issues at hand and time allows.

If you have lengthy comments, please consider giving only a summary of those comments during this hearing and then submitting the comments in their entirety to me in writing before the close of

the comment period, and I will ensure that they are included in the hearing record as an exhibit.

Please keep your comments relevant to the issues at hand. If your comments fall outside the scope of this hearing, I may ask you to proceed to your next issue.

For the purpose of allowing everyone to have a chance to comment and to ensure that we conduct this hearing in a timely fashion, I will impose a time limit of nine minutes per speaker. This should allow everyone that has a desire to speak to have the opportunity to do so. And everyone -- after everyone has had an opportunity to speak and provided that time permits, I may allow those who initially did not desire to speak to do so. If time still permits, I may then allow those who initially ran out of time to speak again.

In the event that we cannot accommodate everyone who wishes to make comments this evening, you are asked to submit your comments to us in writing. Again, written comments are given the same weight as comments made orally at this hearing.

I stress that we want to avoid unnecessary repetition. Once a point is made, it makes no

difference if that point is made once or whether it is made 99 times. It will be considered and will be reflected only once in the responsiveness summary.

The final decision of the Illinois EPA will not be based on how many people support or oppose this project but rather upon the application and its supporting documents indicating that the facility will comply with applicable laws and regulations.

We have a court reporter here who is taking a record of these proceedings for the purpose of us putting together our administrative record. Therefore, for her benefit, please keep the general background noise in the room to a minimum so that she can hear everything that is said.

Illinois EPA will post the transcript for this hearing on our web page in the same general place where the hearing notice, draft permit, and other documents in this matter have been posted. It is my desire to have this posted in about two to two-and-a-half weeks following the close of this hearing. However, the actual posting date will depend on a number of factors, including when I get the transcript from the court reporter.

When it is your turn to speak, I will call

your name to come forward. For the record, you should state your name and, if applicable, any governmental body, any organization, or any association that you represent. If you are not representing a governmental body, organization, or an association, you may simply indicate that you are a concerned citizen or a member of the public.

For the benefit of the court reporter, I ask that you spell your last name. If there are alternate spellings for your first name, you may also spell your first name. Once you spell your name, I will start timing you and you'll have nine minutes to complete your comments.

I ask that while you are speaking that you direct your attention to the hearing panel and to the court reporter to ensure that an accurate record of your comments can be made. Prolonged dialogue with members of the hearing panel or with others here in attendance will not be permitted. Comments directed to the audience are also not allowed.

Again, I remind everyone that the focus of this hearing is the environmental issues associated with the NPDES permit.

People who have requested to speak will be

called upon in the order that they have registered.

Are there any questions regarding the procedures that I will use this evening for conducting this hearing? Okay. Let the record indicate that there were no hands raised.

First person that registered to speak was Brian Perbix.

MR. PERBIX: I will pass for the moment.

HEARING OFFICER: Pass for now. Okay. For the record, Perbix, P-e-r-b-i-x.

COURT REPORTER: Thank you.

HEARING OFFICER: Traci Barkley.

Ms. BARKLEY: My name is Traci, T-r-a-c-i, Barkley, B-a-r-k-l-e-y.

Thank you -- thank you for having the hearing tonight and for allowing an opportunity for the public to come and voice concern.

I am a water resources scientist for the Prairie Rivers Network. We're a nonprofit environmental organization that works throughout the State of Illinois to protect clean water on behalf of communities such as this. Much of our work focuses on policies such as the Clean Water Act and Safe Drinking Water Act -- laws that are intended to protect our

waters, our environment, and ultimately our health.

The modifications to the Havana Power Plant NPDES permit allow for the discharge of additional pollutant-laden wastewaters from Dynegy's Havana Power Station to the Illinois River in Mason County, Illinois. Surprisingly the additional pollution proposed for the Illinois River is a result of cleaning up air pollution from the Havana Power Plant.

The investments in air pollution controls at the Dynegy Havana Power Station are the result of a lawsuit against Dynegy dating back to 1999. Federal and state governmental parties were joined in the case by a coalition of citizen groups, including the American Bottom Conservancy, Health and Environmental Justice of St. Louis, Illinois Stewardship Alliance, and our organization, the Prairie Rivers Network. Investments at five power stations -- including the Havana Power Station, the Baldwin Power Station, Hennepin Generating Station, Vermilion Generating Station, and the Wood River Generating Station -- were required to reduce air pollution by over 54,000 tons per year. This has been a tremendous step forward.

We do applaud the additional air pollution

controls employed by Dynegy at the Havana Power Station. However, it is appalling that the pollutants being removed from air emissions are simply being moved to water. These pollutants include things such as mercury, arsenic, cadmium, chromium, lead, among others.

In addition to the threats from the build-up of mercury concentrations in fish flesh and further up the food chain, the power plant waste in the form of fly ash, bottom ash, and activated mercury sorbent contains concentrated levels of arsenic, chromium, and cadmium that can damage the nervous systems and other organs, especially in children.

The Illinois River is an important system for the many river-side communities that rely on clean water for their small businesses and tourist attractions, for the commercial fishermen that draw their income and livelihoods from healthy fish, for the residents that rely on clean water and a healthy ecosystem for recreation and aesthetic enjoyment.

The Illinois River Valley is also a rich ecosystem for many types of wildlife. In fact, historically the Illinois River Valley has been one of the most important migration areas for waterfowl in

North America. During spring and fall migrations, waterfowl are attracted to the abundance of food available in shallow bottomland lakes, sloughs, marshes, ponds, and forests. Though the Illinois River Valley has been greatly altered by drainage of the wetlands and sedimentation of the river, significant reinvestments into this system are producing an unprecedented revival.

The Middle Illinois River system boasts 134 heritage sites and eight natural area sites, totaling the sixth highest percentage of natural area acreage among the Illinois Department of Natural Resources resource rich areas. There are nine state holdings, including one state park, five conservation areas, one forest, and two fish and wildlife areas. Emiquon, Chautauqua, and Meredosia National Wildlife Refuges are federal lands located here.

Prominent natural features include sand prairies, hill prairies, springs, seeps, savannas, ponds, lakes, woods, and habitat for herons, eagles, the state-threatened Illinois chorus frog and Illinois mud turtle. In fact, a recent multimillion dollar project at Emiquon Preserve has created a mosaic of habitats that now support over 212 species of birds

documented there, including woodland, wetland, and prairie species. Theses are all organisms and systems that rely on clean water.

The Nature Conservancy signed a cooperative fisheries management agreement in 2007 with Department of Natural Resources, and, as a result, nearly two million fish were stocked in Emiquon's waters with many species not available from hatcheries. Those are all fish that have a connection with the segments of water that are proposed for impact here tonight.

Emiquon now has 5800 acres of wetlands with additional adjacent restoration taking place. And if you take Chautauqua National Wildlife Refuge, Emiquon National Wildlife Refuge, and the Emiquon Preserve, we are talking about roughly 14,000 acres of Illinois River Valley which will be restored into habitat that will promote the betterment of a whole variety of species.

Several of our members live and recreate in the Illinois River watershed. It would be adversely impacted by a discharge of pollutants that degrade water quality.

We oppose the issuance of this permit and

are specifically concerned with the over 15 million gallons per day of north ash pond discharge from outfall 002, the .25 million gallons per day of treated groundwater from outfall D02, the intermittent discharge of south ash pond discharge from outfall 002, and the over 21 million gallons per day of east ash bond discharge from 005.

I have some specific comments and questions that I'd like to go through, and you can let me know when my time is up.

My first question is what communities draw water from downstream segments from the Illinois River for public water supply?

MR. MOSHER: Traci, I don't believe that there are any, but we'll certainly check that and correct that, if necessary, in our responsiveness summary.

MS. BARKLEY: And is the agency aware of industries that draw water from downstream segments of the Illinois River?

MR. MOSHER: That is -- yeah, I would say definitely industries are drawing water, not for drinking water purposes but for their industrial purposes.

MS. BARKLEY: And has the agency evaluated how additional pollutant loading might impact their need for clean water for their industrial processes?

MR. MOSHER: Yes, we have in the regard that the additional pollutant loading from the new activities, the activities evaluated under antidegradation, is so minute that we don't see how it will impact any use, and that was our conclusion -- that it will not impact any use of the river, including industrial water uses.

MS. BARKLEY: So knowing that the volumes of water proposed for discharge include some basic, some acidic, some liquid, some dry, some salty, some high in metals, the discharge will be mixed together in east ash pond, allowed to decant, and then discharged in the Illinois River, can you walk you us through how the agency evaluates all those waste streams that are either going directly into east ash pond or going into the north and south ash ponds and then are discharged into the east ash pond? How does the agency evaluate all those waste streams, how they mix, and what their ultimate impact will be?

MR. MOSHER: You look at each individual waste stream -- and, Mark, you have a hand in this so

add anything you want to what I say. You evaluate each one for its constituents, and it's kind of a sum total of what these new waste streams contain, and it's all taken into account as -- you know, the size of the ash pond and what's going to go on in the ash pond. We make some comments about neutralization of acid and alkaline waste streams, et cetera, that -- the end result or our final conclusion is that it's a fairly minor addition to the existing ash pond.

MR. LISKA: I don't think I have anything else. It's a mass balance of the parameters that go in. We take into account the treatments that they have, and we concluded that there is negligible impact.

MS. BARKLEY: So from multiple sources we know that water softener backwash, deep well acid cleaning wastewater, lime slurry, scrubber system wastewaters, and coal combustion waste made up of fly ash and bottom ash typically include toxic metals, including arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium-226, strontium-90, selenium, sulfates, total dissolved solids, and zinc, as well as salts including sulfates and chlorides.

Have reasonable potential analyses been conducted for any of these pollutants?

MR. LISKA: Yes.

MR. MOSHER: Well, yes, we have. And I think you're using the word "toxic" in your statement a little loosely. It's our conclusion that there won't be toxic concentrations as measured against the state's water quality standards in the effluent coming out of the ash pond.

So when you say "toxic," yes, all those things can be toxic, as every substance on earth can be toxic in the right dose, but it's the dose or the exposure that is part of our evaluation. And we have concluded that water quality standards won't be exceeded. Therefore, the discharge won't be toxic.

MS. BARKLEY: So a formal reasonable potential analysis has been conducted for each of these pollutants to ensure that water quality standards will be met?

MR. MOSHER: When you have new waste streams that haven't occurred yet, haven't been discharged yet, the formal reasonable potential analysis that you would find in the USEPA technical support document isn't possible because that's an

analysis that's done on an existing effluent.

But you can say in a way that our evaluation is reasonable potential because we look at all the constituents, we look at the volume of the ash pond, what's already going to the ash pond from existing sources, and, yes, we have done a reasonable potential analysis in that regard, and our conclusion was that water quality standards would be met.

HEARING OFFICER: We've gone the time limit. If you've got just a few issues on this particular topic, I'll --

MR. LISKA: I want to add one thing.

HEARING OFFICER: Yeah, I'll let you go ahead and finish on those.

MR. LISKA: I just wanted to add that Special Condition 21 of the permit requires monitoring/testing for the vast majority of the metals that you listed.

MS. BARKLEY: Can I ask one follow-up question to this?

HEARING OFFICER: Yes.

MS. BARKLEY: One, I'd like to make the comment that that's twice per year, and really, to get enough information that means anything, it will take

multiple years since there's only two data points per year to look at whether to run the reasonable potential analysis.

So then I would ask if the agency has looked at waste streams that are similar from other power plants either within Illinois or within the region that could be compared to this so you have more of an informed basis --

MR. LISKA: We do look at those. Yes, we do look at the same types of waste streams from other power plants as well. And by --

MS. BARKLEY: Do you have --

MR. LISKA: -- by having -- and by doing these tests, we -- we will establish enough data points that we will get a very good result with high degree -- with a high degree of accuracy of what is in there.

MS. BARKLEY: Can you provide examples of what other plant waste streams you've looked at and how many years for the data collection you feel like the agency will need to have before you can complete a reasonable potential analysis with data from this plant?

MR. LISKA: Well, we would look at -- for

this one, we would look at pretty much any of -- any of the other coal power plants that are in Illinois, and there are -- there are enough coal power plants in Illinois either by -- either owned by Dynegy or by other people that we would -- we would definitely have enough data.

HEARING OFFICER: We have gone the time limit. If time allows, we'll come back to you, Traci, if that's --

MS. BARKLEY: Okay. All right. Thank you.

HEARING OFFICER: Joyce Blumenshine.

MS. BLUMENSHINE: Thank you. My name is Joyce, J-o-y-c-e, Blumenshine, B-l-u-m-e-n-s-h-i-n-e. I am a volunteer with the Illinois Chapter Sierra Club, and Sierra Club wants to protect the environment for our families and our future. We thank all the members of IEPA here tonight for this important hearing, for coming to meet the public in their hometown, and to listen to the concerns.

Our local Sierra Club group, Heart of Illinois Sierra Club, with its approximately 900 members, includes Mason County and the citizens of the area of Havana. We have particular concerns about the

proposed permit tonight. I have a general comment and then a few questions, please.

HEARING OFFICER: Okay.

MS. BLUMENSHINE: It's been well known that disposal in ash ponds with wet slurry is considered inherently unsafe, and it really should be phased out as soon as possible. In recent times, we have seen dramatic incidences showing the hazards and risks of wet coal ash. Most recently, the spill into Lake Michigan, and then, in 2008, the huge disaster of the TVA Authority in Kingston.

While I realize, Mr. Studer, and certainly respect that the construction of this ash pond is not the issue, I respectfully submit that, if there was any kind of disaster, leak, fissure, or break of the ash pond, it would be this community that would suffer the toxins that are contained in there that could be released, and it's Dynegy's own study that the flow from impact will go possibly five miles and would include hundreds of residences here in the town of Havana. So this is a huge and very serious issue for this community, and as one of my exhibits, I will turn in the Dynegy study with their comment to that effect.

Regarding your proposed permit, I did have

some questions regarding outfall 005 where I believe I heard that the comment was that the mercury is expected to stay bonded to the sorbent; yet in your own permit, on page 6, regarding pond 005 or the east ash pond discharge, it says "Mercury Sorbent Residue Discharge," and under "Approximate Flow," it says "Intermittent."

So I would appreciate just some kind of further explanation. Is or is not the mercury that is supposed to be bonded to the sorbent ever possibly going to be discharged into the Illinois River?

MR. LISKA: It's not expected to discharge to the Illinois River. If there is any residue that for some reason discharges to the Illinois River, it will -- the mercury will stay bonded to it so that the mercury will -- the mercury itself will not come out and go into the ecosystem where it could be taken in by anyone or anything.

MS. BLUMENSHINE: May I ask, then, is this sorbent going to sink to the bottom of the river? Is it carried with the flow to the dead zone? What happens to this if it goes into the river?

MR. LISKA: It is expected to sink.

MS. BLUMENSHINE: And if it sinks, then

that toxic mercury is building up over time, as the legacy from this power plant and your permitting, in the Illinois River for future generations to deal with. Is that not the case?

MR. LISKA: Again, it will -- it will stay bonded to the sorbent so that the mercury itself will not cause any -- any problems. It will not -- the mercury will stay bonded in there so that it cannot be released and taken into, again, anyone or anything in the river.

MR. MOSHER: Let's back up just a minute. Number one, all indications are that the mercury and the activated carbon it's sorbed to will remain in the ash pond. If it doesn't for some reason -- and this is a new type of technology. Dynegy is going to monitor for mercury in the final effluent. If it's noted that the concentration of mercury begins to rise, we'll note that, and we'll step in. We'll say, wait, you -- you know, this wasn't supposed to happen. Now, let's fix it before water quality standards aren't met.

So I think before we start talking about what happens to the mercury discharged, we need to talk about, number one, we don't think it's going to

be discharged. Number two, there's only a certain amount of mercury that's allowable to be discharged. It's a very, very low standard for mercury.

MS. BLUMENSHINE: Thank you, Mr. Mosher. I appreciate your explanation, and I'm sure, as all the EPA members know -- and certainly I'm not a scientist, but we're aware that an amount of mercury probably the size of a dot of a pinhead can pollute a lake and cause the fish to be unsafe for human consumption. We are very concerned about the highly toxicity levels of this, and I'd just like to ask -- and I probably won't, you know, know the test method, but what test methods prove that this sorbent is so good for bonding the mercury over such a long time?

MR. LISKA: Do you want to talk about the test method, the EPA 1631?

MR. MOSHER: Well, I think she's asking about the studies that were done to demonstrate that the mercury and the sorbent settle, and those publications are given in the antidegradation assessment review.

MS. BLUMENSHINE: Okay.

MR. MOSHER: Which I believe is in the public notice/fact sheet.

MR. LISKA: Yes.

HEARING OFFICER: Yes, it is.

MS. BLUMENSHINE: I will go back and check those. Thank you. I just -- I was trying to -- because I didn't know if there was some other, you know, test method such as --

MR. LISKA: There are several studies in the antidegradation listed.

MS. BLUMENSHINE: Thank you. I do appreciate.

And then just a -- as a kind of final question on the mercury then. Mr. Mosher kindly pointed out that Dynegy will test, and I wanted to ask about Special Condition Number 8. Maybe I'm not understanding this right, but it says mercury will be monitored on a quarterly basis until 12 samples have been collected. Is that just regarding something that I'm not seeing here, or is that for all of the mercury? Is there some limit, then, to the testing that Dynegy will be expected to do on the mercury?

MR. LISKA: We -- the permit does have that they would have 12 samples, and we had that in because we would -- we would feel that that would be enough samples to get a high enough degree of accuracy

whether there were any problems with the mercury sorbent.

MS. BLUMENSHINE: So on behalf of Heart of Illinois Sierra with its 900 members and the Illinois state chapter with its approximately 29,000 members, we respectfully ask that this special condition be revised to not say that the company can cease measuring for mercury after these 12 samples but that this be a continuing special condition.

I respectfully submit that with changes in our rain patterns, changes in water levels in the Illinois River from Chicago, there are many, many variables happening in this area, and I do not see how that 12 samples could be considered accurate when you're talking about mercury.

So we -- we do ask IEPA to look at this again and not allow the company, upon written notification to the agency, to cease sampling for mercury.

A couple other concerns, and I'm almost finished. Thank you for your patience.

On the federal EPA ECHO, Enforcement Compliance and History Online, data pages, which I'll turn in and submit as an exhibit, it does say that

there are instances of noncompliance for this plant's current permit. It refers to discharge point 02 and discharge point 005.

And I just would like to ask how -- is that taken into any consideration in the awarding of a new permit by IEPA?

MS. WILLIAMS: We'll probably have to respond in the comments to that, Joyce.

MS. BLUMENSHINE: Okay. Thank you. I just respectfully submit that, if there have been exceedances in the past, then, in spite of all the assurances and the hard work by IEPA, we local citizens are concerned about the build up of these toxic heavy metals, and as minute quantities have been stated, over time these build up. Whether they are in the ash pond or in the river, these toxins could prove hazardous and problems for future generations.

I'd also like to point out from this ECHO report that in the community of Havana that about a quarter of the population -- it says 21.58 percent -- is 17 years and younger and about the same amount, 21.53 percent, is 65 years and older. And that these populations are more subject to problems to health or their just well-being from even minute amounts of

metals, and while we do greatly appreciate the improvements in clean air brought on by your hard work with IEPA and the improvements required, we now are very concerned that these same toxins will be put into an ash pond, sitting above drainage for the community of Havana, which, if there is any disaster, all those toxins could be released upon the community, and similarly we do not want to see any additional mercury or other heavy metals going into the Illinois River.

We respectfully ask on behalf of Sierra Club that Dynegy be required to institute procedures with the approval of this permit, if it is approved, that they must go to a dry ash pond and that, if they are not required to move immediately to a dry ash pond, that this permit not be approved.

Thank you.

HEARING OFFICER: Thank you. Did you have --

MS. BLUMENSHINE: Yes, I have exhibits. I'm sorry.

HEARING OFFICER: -- want to submit?

MS. BLUMENSHINE: Exhibit 1 I left over here.

HEARING OFFICER: Okay. The next person

will be Philip Marcy.

MS. BLUMENSHINE: Sorry. This is Exhibit 1, the Dynegy hazard plan. This is Exhibit 2, the ECHO report. Thank you, sir.

HEARING OFFICER: Okay. Very good. Thank you.

Okay. If you'd proceed, Mr. Marcy.

MR. MARCY: Yes. It's Philip Marcy with one L, and Marcy, Sr.

COURT REPORTER: Spell your last name.

MR. MARCY: Yes. Marcy, M-a-r-c-y, is the last name, Senior. I do have a junior. And I'm a resident of Havana and a concerned citizen.

The first is a comment and a question. And it's about the distribution of the coal ash from the power plant through a residential area by tanker -- and we're talking maybe three or four a day, two or three days a week -- and taken up to the intake of the pond and cannons shoot it in there and the hazard of that.

And has anybody looked into, instead of dumping that in a wet pond, it can be used in a dry form in concrete and used on the highways, which is safe, or roadways, and it would be a good byproduct

for using in the concrete instead of shooting in these wet ponds which are hazardous. Has any --

MR. LISKA: Regarding your first question regarding trucking it through the City of Havana, that is not part of any consideration in the NPDES permit and is not part of our jurisdiction.

As far as using it in concrete and other beneficial reuse, I noted in my -- in my opening statement that the permitting does have a beneficial reuse program. I'm sure they -- it is to their benefit that they try to minimize the amount that they have to put in the ash pond. That they have specifically done their treatment system in a way that they are trying to market the most fly ash that they can, the vast majority of their fly ash that doesn't also have the mercury-sorbed carbon in it, and they are trying to beneficially reuse as much as they can.

MR. MARCY: Looking at the volume that goes by our house every week, we're talking two to three times a week, three or four, five trucks a day, and so that amount's going through a residential area, which we have nurseries in our residential area right off the pond, and that should be strongly looked into of going to -- and removing it in the dry form and

using it in things like concrete and road surfaces and so on is safe. There's -- there's definitely a market there, and I don't know why Dynegy is not looking into doing that for the removal of the coal ash.

And another -- a comment I had from a commercial fisherman that lives in the shadows of the pond is that he duck hunts, and he has noticed a yellow residue on the bellies of the ducks, the geese, the waterfowl, and he's concerned about that. And if you're talking about mercury and so on, is this waterfowl even edible or safe?

And I had a question -- it was addressed a little earlier -- is the integrity of the walls to that pond. I don't know if they're lined. I've heard both -- that they're not and that they are. But I -- I really am concerned about any kind of earth movement, earthquake, whatever that would cause that wall to breach. It would devastate -- and we live right next door to the coal ash pond. It would devastate this whole -- a lot of this town.

And they need to eliminate the use of the ponds -- the wet ponds and go to a different method, and I understand -- I asked one of the guys at the power plant. I said, "What's the life on the pond?"

And I think he said about ten years. And I said, "What do they do when the life runs out on the pond?" And he said, "We just cap it off and build another one." Which they own all the way down Pear Street, and I assume that's where they're talking about putting another one at when this one runs out. That's not the answer. They need to look to dispose of that in the dry form and not in the wet pond.

I have nothing against Dynegy. I used to work for City Water, Light, and Power in Springfield. It's a public utility in Springfield, you know, and so I appreciate that, and I personally have nothing against Dynegy. I do have something against their distribution and the use of the wet ponds.

So that's kind of what I had in a nutshell. That's my main concern. There's a couple of them there.

Thank you.

MS. WILLIAMS: Thank you.

MR. LISKA: Thank you for your comment.

HEARING OFFICER: Thank you, Mr. Marcy.

Amiee -- is it Rilea?

MS. RILEA: Oh, that would be me. Okay.

HEARING OFFICER: I'm sorry.

MS. RILEA: It's Rilea.

HEARING OFFICER: It's pronounced Rilea?

MS. RILEA: Rilea.

HEARING OFFICER: Okay.

MS. RILEA: It's Amiee, A-m-i-e-e, Rilea, R-i-l-e-a.

Really, I live right next door to Phil; so I am part of the neighborhood. Really, most of my concern with it, which I know it doesn't have to do with you guys' permit, is the safety of the walls of it, which I know that that's not the case tonight.

But as Phil mentioned, what lines that? What keeps that from going into the soil that would never allow it to get into the soil?

MR. LISKA: It is -- it was constructed with a clay liner that -- that is impermeable -- well, nearly impermeable to a very, very --

MS. RILEA: But, see, that --

MR. LISKA: -- degree. It also has a number of monitoring wells all around it, and in 20 years of data, we have no -- we've had no problems with this lined pond.

MS. RILEA: But my problem is the -- the word you guys use. You guy use the words "nearly."

That doesn't mean it's going to keep -- that it's going to keep it there.

MR. LISKA: When I say --

MS. RILEA: The word "nearly" just means that it has a possibility of keeping it there. That doesn't mean it's going to keep it lined, and once it does, it's right into our water system, and the Illinois River sits, you know, hundreds of feet away from this coal ash pond from either one of them. We have residents -- Phil lives 200 foot from that ash pond.

MR. LISKA: Right.

MS. RILEA: You know, I have -- and there are, in our neighborhood, at least 25 to 30 children that play in this neighborhood that this semi drives through every day three or four times a day.

Also, we have the railroad tracks. Say an accident happens. Is that not of you guys' -- is that not in your petition or your -- your job, to worry about what happens to that semi, have it spill something all over the neighborhood as it drives through? An accident occurs. What happens then?

MR. LISKA: Okay. Regarding the -- when I said "nearly impermeable," I only meant it in the way

that technically nothing is impermeable. It could be 20 feet of concrete. It still has some very tiny -- like, one time -- one to the negative tenth power or one times ten to the negative tenth permeability. The permeability ratings on such things as this are extremely low. We're talking tenths or hundredths of a centimeter per year. Extremely, extremely low.

MS. RILEA: Okay. So what about the semi situation?

MR. LISKA: The semi situation is not part of the NPDES permit. That would be part of --

MS. RILEA: But wouldn't -- doesn't the --

MR. LISKA: -- hazardous -- that would be hazardous waste hauling. There are permits that they have to have --

MS. RILEA: But the transfer --

MR. LISKA: -- in order --

COURT REPORTER: Wait a minute. Wait a minute.

MS. RILEA: I know. I'm sorry.

MR. LISKA: They do have to have permits to transfer those things. It's just not part of this permit.

MS. RILEA: Okay. But the permit doesn't

have anything to do with how it gets there?

HEARING OFFICER: Not the -- that's correct. Not the --

MR. LISKA: Not this permit. There are other permits that they have to have for hazardous waste hauling. You might want to check with the -- again, the IEPA, Bureau of Land, and IDNR.

MS. RILEA: Okay. So -- okay. Then I have another question. With the -- I don't want to say it's, like, fumes that would come off of it, but it would be something along the lines of putting something into the air off of the pond itself, whether it's vapors of some sort.

MR. LISKA: That would be handled under the Illinois EPA air --

MS. RILEA: So that's not you guys.

MR. LISKA: This is a water permit that they -- they do have significant air permits as well for all sorts of discharges. But that would be part of their air permits.

MS. RILEA: So it wouldn't have anything to do with you guys.

MR. LISKA: That wouldn't have anything to do with this particular permit.

HEARING OFFICER: It would be part of the division of air pollution control. They do have emission permits.

MS. RILEA: Even though it's coming off the water --

MR. LISKA: Correct.

MS. RILEA: -- it would have to be --

HEARING OFFICER: It's still -- there are still air standards that have to be met that are controlled by the air permit.

MR. LISKA: Correct.

MS. RILEA: Okay. That's all I have to say --

HEARING OFFICER: Thank you.

MS. RILEA: -- that I can think of.

HEARING OFFICER: Chris Rilea.

MR. RILEA: Good evening. Chris Rilea. C-h-r-i-s R-i-l-e-a.

All right. My questions I don't think are so in depth, but pretty much what I had are you said that they do have monitoring wells. Okay.

MR. LISKA: Groundwater monitoring wells around the -- in and around the pond, yes.

MR. RILEA: Okay. How deep are these

wells?

MR. LISKA: I do not know exactly. I would have to get back to you in the responsiveness summary.

MR. RILEA: Okay. And I wasn't for sure that I heard -- heard right back there, but you said that it has clay walls --

MR. LISKA: Yes.

MR. RILEA: -- on the sides? All right. So you're looking at clay particles of -- and, like, I've done a little bit of, like, soil research and stuff. Okay. Clay particles -- no matter how deep these wells are, clay particles actually spread the water out more like this. And then, if we've got wells over here underneath the pond that are actually, like, being monitored, the water's actually going to spread it out into our -- what we love in Havana is our sandy soil. So then it's actually going to sink down into our aquifer, our drinking water. So not only do we have the river to worry about but also our drinking water if -- if the clay walls are actually spreading it out past your monitoring wells.

So I was wondering, like, just where they were and how deep they were, things like that.

MR. LISKA: I don't have any specifics on that, and we -- we don't have our experts in groundwater here today. But with your comment here, we will definitely answer all of that in the responsiveness summary.

MR. RILEA: Okay. And I'm not for sure how -- how the pond actually works but my -- my leaching part was good, like, that's finished.

So overflow for this pond. I am not sure how -- how they manage the overflow, but, like, say, how -- how do we manage that?

MR. LISKA: Overflow from it is discharged through their outfall -- well, the east ash -- any of the ash ponds -- they have specific outfalls that go to the Illinois River.

MR. RILEA: Okay. All right. And as -- as my neighbor Phil says -- said about the waterfowl situation, okay --

MR. LISKA: Uh-huh.

MR. RILEA: -- the thing is completely open to anybody that can climb a fence or any kind of bird or something like that. If something does get in there such as our waterfowl, which is -- thanks to Emiquon our water -- our bird situations have just

raised tremendously. So could -- could we have something that would help out making sure that our birds are not landing in this or not drinking out of this water -- these birds that are also hunted down river to where we actually eat.

MR. LISKA: I don't -- I don't have any expertise on that either --

MR. MOSHER: Well --

MR. LISKA: -- but we can --

MR. MOSHER: -- you wouldn't think waterfowl would like the ash pond because it doesn't hold any food plants or anything like that that I'm aware of. I -- I don't know of any contact injury they would get from just landing on it. So, in my experience, waterfowl risks from ash ponds hasn't been a topic of concern that I've been aware of through the years, mostly, I think, because there's not that much attraction for the waterfowl to land there.

But if we can find any additional information on that, we'll put it in the responsiveness summary for you.

MR. RILEA: Okay. Okay. And could you give me the date on the first permit that they -- that Dynegy applied for?

MR. LISKA: I'm sorry?

MR. RILEA: Could you give me a date for the first permit that Dynegy applied for?

MR. LISKA: Their -- their current permit?

HEARING OFFICER: No.

MS. WILLIAMS: Do you mean the first time ever that they had a permit?

MR. RILEA: Well, this -- for this pond in particular.

MR. LISKA: Again, this pond was built in the early 1990s.

MR. RILEA: Okay.

HEARING OFFICER: But when it was permitted, the first permit was issued.

MR. LISKA: I don't have that off -- I don't know that offhand.

MR. RILEA: Okay. All right. And that's all I have. Thank you.

HEARING OFFICER: Thank you, Mr. Rilea.

Okay. We've gone through the cards. Is there anyone here that has not spoken this evening that would like to speak? Okay.

May I see a show of hands of those that have already spoken that have additional comments or

issues that they would like to raise tonight. One, two, three. Okay. We've got three additional people. So I'll grant another -- another nine minutes to each of those three.

Traci, if you would come forward.

MS. BARKLEY: Okay. Traci Barkley, Prairie Rivers Network.

So there have been some concerns from residents of the neighborhood about trucks transporting the dry ash material from the power plant to the east ash pond, and I spent a day in the neighborhood last spring and witnessed six trucks one day going through the neighborhood with ash on the outside of the truck. And I don't know how much dust was spilled. I mean, I didn't quantify it, but I can appreciate, if it's happening twice a week, several times a day, week after week after week, that that can add up.

And so I know that you've said that it's out of your jurisdiction, but if you look at Special Condition 19, which I don't have with me, but that's the stormwater pollution prevention plan. It talks about reducing -- let's see. It says, "The plan shall describe and ensure the implementation of practices

which are to be reduced" -- "used to reduce the pollutants in stormwater discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit."

And I understand this permit is -- has to do with the permitted facility, but I wonder how the agency handles when there is material that is taken from one part of the facility through a public area to another part of the facility. How -- how do you apply stormwater management practices and ensure that pollution isn't happening from that practice? And I would -- that's my question.

And then I would further submit that, if you look at a map of the site, if operators at the plant were to drive south on a rural road to the south edge of their south ash pond and then up -- is it Pear Street?

UNIDENTIFIED: Yeah.

MS. BARKLEY: -- north on Pear Street, they could do the same trip with about the same distance without passing a single residence. So I guess I'd like to have you address those two issues.

How do you handle, you know, the public

road use for transport of pollution?

HEARING OFFICER: These are issues that are outside of the scope of the water permit. It's going to take coordination with others within the agency to answer the question. So we'll have to provide a written response to you in the responsiveness summary.

MS. BARKLEY: Okay. I would appreciate that. I do think it's within your jurisdiction under the stormwater pollution prevention requirements.

Then I'd like to ask, for the numbers that you provided, Mr. Liska, about the risk associated when Ms. Rilea was asking questions. Has a risk assessment been -- are you familiar with the risk assessment that's been completed for an ash pond like this, that is 90 acres in size and has a clay liner, to evaluate what the risk of failure or the risk of pollution might be?

HEARING OFFICER: Okay. If we're talking about the failure, you're talking about --

MS. BARKLEY: I'm talking about failure -- for the liner. The integrity of the liner to protect groundwater. I'm sorry.

MR. LISKA: I am not -- I did not look

over the risk assessment that was done in the early '90s regarding that.

MS. BARKLEY: And who conducted the risk assessment?

MR. LISKA: I -- I have -- I don't know.

MS. BARKLEY: Okay. Was it specific to this site? Or was it a larger risk assessment for this type of ash pond?

MR. LISKA: I don't know the answer to that one either.

MS. BARKLEY: Okay. If you can provide that in the responsive summary.

MR. LISKA: We'll provide an in-depth answer to that ash pond -- when it was built and what -- what factors were in it.

MS. BARKLEY: Okay. And then, also, in the responsive summary, if you could provide the thickness of the clay liner, whether it was one foot, four feet.

MR. LISKA: Okay.

MS. BARKLEY: And if it was compacted to today's engineering standards.

MR. LISKA: Uh-huh.

MS. BARKLEY: Then considering that the

Illinois River is currently listed as impaired for fish consumption uses due to high levels of mercury on the 2006 303(d) list, and considering that the Illinois River is heavily used for fishing, hunting, wildlife purposes for both recreation and commercial interests, we feel it's imperative that reductions in heavy metal pollution be seriously addressed.

I understand that the applicant and the agency have summarized in the antidegradation assessment that they don't expect for mercury sorb to -- the ash material and sorbent to be released in -- from the ash pond based on two reports, but we take issue with this line of reasoning and the information used to support this statement. And I'll submit more in written -- in writing, but I just want to draw attention to the two reports that were referenced: One, the EPRI, Electric Power Research Institute, report entitled, quote, "Activated Carbon Injection: Effect on Fly Ash Sluice Water," end of quote, was, according to them, a preliminary review of a small number of samples intended to identify potential issues and guide future research.

So this report was based on three samples, and from their abstract, they note that the report was

based on laboratory tests and sim -- laboratory experiments and simulations and only preliminary conclusions were drawn.

Second, the agency and the applicant support the assumption that the mercury-laden ash and sorbent will stay in the sediment basins, also citing a USEPA document entitled "Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control." The primary object -- and I read this report, and I read the EPRI report. The USEPA report states that the primary objective was to evaluate the potential for leaching to groundwater.

The report did conclude that the application of activated carbon injection substantially increased the total mercury content in the resulting coal ash for five of the six facilities evaluated.

But it's important to recognize that this was the first of a series of reports that will address the potential for leaching of constituents of potential concerns from these coal combustion residues, and they note that subsequent reports will address, among other things, quote, "assessment of

leaching for constituents of potential concern under additional management scenarios, including impoundments and beneficial use," end of quote.

The point is that this report did not specifically address threats from mercury-enriched residues when managed and disposed of in impoundments such as what is proposed here at the Havana Power Station.

We feel that the agency and the applicant have misapplied the findings of this report and the EPRI report to the proposed situation here at Havana, and that the folks of this community and downstream communities deserve better.

Then I also would like to note the same reports were used to support similar findings at the Newton Power Station where mercury was expected to remain in the ash material in the sedimentation pond and not be released to the Newton Lake. And we asked at that hearing if anything other than those reports were relied upon and if any additional data was collected at existing coal ash impoundments, and the agency replied no.

And then we looked at the ECHO, Enforcement and Compliance History Online, database

for Ameren's Newton mercury discharges from outfall 001 and found that they've been increasing steadily since 2009 when the facility began using activated carbon injection.

In the first quarter of 2011, mercury effluent measured 17.8 nanograms per liter, and in the second quarter of 2011, it was 18 nanograms per liter -- both of these in exceedance of protected water quality standards.

I tried to find similar data for Havana ash ponds. There was nothing on the ECHO system. So I'd like to know why there wasn't data on the ECHO system and if you've evaluated the data from the ash ponds and what does it show currently.

MR. LISKA: We don't have any data from Havana because previous permits have not required mercury testing.

MS. BARKLEY: So is there any way for the agency to evaluate whether mercury discharges will actually increase as a result of the additional waste streams that are going to be in those ash ponds? Is there any baseline data?

MR. LISKA: We are adding mercury monitoring to -- to this permit as well as other

permits for coal-fired power plants throughout Illinois, and we will monitor that data.

MS. BARKLEY: So have any of the additional waste streams described in this permit -- have they already been added to either ash pond -- the north or the south ash ponds or the east ash pond? Have any of those additional waste streams that are proposed under this permit already been created and placed in those ponds?

MR. LISKA: I am not aware of that at this point.

MS. BARKLEY: So does agency feel like there's an opportunity to get baseline data before these additional waste streams will start being processed?

MR. LISKA: I don't -- I'm not sure if we have any other baseline data. The permitted sampling will begin when this permit is issued.

MS. BARKLEY: Okay. So my -- my concern is that what we found at Newton -- and I know it's another facility, but that the air pollution controls had already been put into place, the waste streams already created. It was being held at a separate -- well, in one instance, it was being held at a separate

place. My concern here is that the air pollution controls might already be in place and some of this might already be in the ash ponds and you won't get an opportunity to have baseline data from which to measure whether there's been an impact.

And I think just relying on two preliminary reports -- and really I -- I question whether they're even, you know, applicable to this situation. I think, considering the importance of the Illinois River and its uses, that much more needs to be done to show that this, in fact, will be protected water quality standards in the Illinois River.

MR. LISKA: We'll consider the baseline testing prior to the issuance of this permit.

MS. BARKLEY: So then the other things that I would like to see explained in the responsive summary is whether an evaluation of the lime -- well, one, if lime is being used as the sorbent for scrubbing flue gases and if a chemical characterization has been completed for lime slurry that's proposed under this permit; whether a reasonable potential analysis was completed for the acid well water rinses; why there isn't monitoring for chlorides, sulfates, metals, and boron for the north

and the east ash pond discharges through 002 and 005.

And then --

MS. WILLIAMS: Do you want these now or --

MS. BARKLEY: I'm just listing these so they can be put in the responsive summary, in the interest of time.

Then Illinois antidegradation rules prohibit the lowering of water quality without a showing that the lowering of water quality is necessary to accommodate important economic or social developments. The analysis should demonstrate that all technically and economically responsible alternatives to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed expansion.

So -- and I'll submit more on this in writing, but from what I can tell from the antidegradation that was completed and publicly noticed, Dynegy really did not do much of an antidegradation analysis in terms of other alternatives to reduce pollutant loading, and they failed to demonstrate that a dry ash landfill is not economically feasible, stating instead that they will consider the option once remaining capacity at the

east ash pond is exhausted.

But then, in the report that was submitted to USEPA concerning the east ash pond, the operational -- current operational procedures at the Havana Power Plant, as reported by Dynegy, show that they're actually transporting ash dry from the power plant to the east ash pond where it is then wetted and discharged into that pond. Same with the boiler ash.

So I wonder just how much expense there could be if they're already handling the ash in a dry manner and then just need to put it in a dry lined landfill that USEPA is showing is more protective of groundwater and would not require discharges to surface waters like the Illinois River. Part of the expense is already taken care of in that they're already creating the ash and handling it in a dry way, then making it wet and putting it in an impoundment, which has been shown to be more threatening to clean water.

So I -- I would submit that Dynegy should be required to do an antidegradation assessment evaluating how much it would cost and whether it's economically reasonable and technically feasible under our Illinois antideg regs to build a lined dry

landfill cell for the ash that they're creating right now instead of continuing to use an impoundment that is held back by a high hazard dam.

Off gases, as Amiee was mentioning earlier tonight, is an attractant to wildlife because we've seen it and ultimately might leach through the clay liner.

I think those are all either existing impacts or potential impacts that could be ameliorated by a lined landfill for dry waste. And I think under antidegradation regulations Dynegy should have to show -- should have to do the evaluation of that as an alternative to what they're proposing under this permit.

HEARING OFFICER: We've gone past the time limit again, but do you have just a couple more issues or --

MS. BARKLEY: I just have one more question and then a quick statement.

One, I think it would be good if, in the responsive summary, Dynegy could summarize how much they are marketing, how much they are reusing their ash material. If -- if they -- how much they're diverting from disposal to existing markets, and if

they expect that to continue with the change in the quality and the concentrations in the ash material once these air pollution controls are put in place.

And then I'll just close. Of the settlement case that I mentioned earlier with Illinois Power and Dynegy, the assistant attorney general at that time stated, quote, "The citizens of Illinois could not have asked for a better result concerning our agreement with Illinois Power," which is a Dynegy subsidiary.

Nearly 12 years later I now think we can. The intention of that lawsuit, of which our organization was a part, and ultimately the settlement was that that pollution would be removed and not moved. We can have clean air, clean water, and are hereby demanding it. Prairie Rivers Network and our members oppose this permit and respectfully ask for you to deny its issuance.

Thank you.

HEARING OFFICER: Thank you.

Joyce Blumenshine. Do you have additional comments that you would like to make?

MS. BLUMENSHINE: I did. May I go after Mr. Marcy? Is that okay? Thank you.

MR. MARCY: Philip Marcy. I just wanted to piggyback on what Chris Rilea had mentioned about the waterfowl.

As we all know, Havana is a big duck hunting area, and it also looks good on the table. And there is a significant amount of geese and that that do roost on that pond. In the morning, we'll see 30 or 40 fly over our house. I don't -- they go somewhere else. And then, in the evening, they fly back and they stay there. They stay there all night.

And my concern is people are hunting these all over the area and eating the waterfowl, and I worry about the hazard to them, especially like the commercial fisherman mentioned. He's concerned about that. So I just wanted to throw that comment out -- that there is a significant amount of ducks and geese that lay on that; so --

MS. WILLIAMS: Thank you.

HEARING OFFICER: Thank you, Mr. Marcy.

MS. BLUMENSHINE: Thank you very much, Hearing Officer Studer. Joyce Blumenshine.

Just a couple quick final comments. As Mr. Marcy just said -- and I have also seen the Canada geese with discoloration on their stomach feathers.

If those go up and are hunted, I really wonder, since this dry ash is ejected out over the pond, what is being collected on those animals. And, really, I think a study should be done of that to assess are they transmitting, you know, pollution someplace else.

And a follow-up question regarding what might be ending up in the bottom of the Illinois River when we were discussing the mercury would be encapsulated or kept from polluting out. We have a lot of bottom type feeder fish, and I just wonder if studies have been done on that as far as IEPA's awareness of what -- what possible ingestion routes there are with this type of new technology and going into the Illinois River.

MR. LISKA: We'll check on that.

MS. BLUMENSHINE: Okay. So right now, as far as -- there's nothing you could tell us this evening regarding fish ingestion, sediment that might be taken up by muscles or other --

MR. MOSHER: Well, I think the important thing to tell you is that we have a very stringent water quality standard for mercury. Dynegy is not allowed to violate that standard. We've got a new technology being employed that -- whose purpose is to

remove mercury from the air, stop it from falling back into water, and polluting the water. So by removing it from the air, they're doing what we want them to do. We don't want them to then take it out of the air and put it in the water, and we have a water quality standard that will prevent that.

So I -- I know you're concerned about mercury getting onto the river. It's -- it's not allowed to happen. If it -- if it -- somehow this technology doesn't work like those papers that were cited say it's supposed to work, then we go back to the drawing board and make it -- make it work.

MS. BLUMENSHINE: Thank you, Mr. Mosher. And I certainly respect, and we're very appreciative that the mercury is coming out of the air. Again, I mentioned that, even if minute quantities end up in the river, this -- you know, there could be dredging or other things that happen in the future that could be potential risks to the health and well-being of the public.

And, again, it seems like the best answer would be to go to this -- to a dry ash pond as soon as possible, and I just respectfully submit that the company's statement that, you know, they want to --

they can't abandon the current pond because this investment is not reasonable, that, if this company appreciates the community and goodwill, that they would do this of their own accord as soon as possible or that we ask IEPA require Dynegy to go to a dry ash disposal.

Thank you.

HEARING OFFICER: Thank you, Ms. Blumenshine.

Is there anyone else that has any additional comments this evening?

MS. MALONEY: I have a couple question.

HEARING OFFICER: Yes. If you have a question, please come forward and state your name for the record.

MS. MALONEY: My name is Monica Maloney. The last name is M-a-l-o-n-e-y.

I'm not a scientist. I don't have a bunch of papers. I just have a couple questions.

First and foremost, I'm a mom. Can you guys tell me that five years from now I'm not going to find out that my children are sick with something because of the place I've chose to live because of these companies putting the things that they do in the

water?

MR. LISKA: We have -- we have limits in the permit that require that they not put that much -- that -- excuse me. The permit is limited such that they will not violate any water quality standards.

MS. MALONEY: Okay. My other question is as -- and this may be wrong. I don't know. This is the first time I've ever been to anything like this. It may not be appropriate question.

But I'm sure that at least one of you are a parent. You, yourself, would you move your -- would you live with your children this close to a plant like this?

HEARING OFFICER: Bob, you're a parent.

MR. MOSHER: I've always considered Havana a nice town and a nice place to live, and I personally don't know of any reason that I would be worried about that.

But I must tell you that I know about water quality in the river, effluent quality in the ash pond, and I don't know about all the other things that might exist in the air, in the land. I can't answer that part of your question.

MS. MALONEY: Okay.

MR. MOSHER: But there's nothing going out into the river that I'm aware of, you know, looking at ash ponds all over the state, that is toxic or going to harm the fish or accumulate in the fish. So from that aspect, I can say I don't know of a reason why I wouldn't want to live here.

MS. MALONEY: Okay. I live extremely close to it, as a few of the other people do. My question is, is what about the ground? You know, the stuff blowing off of there. And, yes, I understand that that is the air and everything. What about those things and the trucks and everything else?

HEARING OFFICER: Those, again, are air issues, and we don't have appropriate people here to answer that question. So it will have to be in writing in our responsiveness summary.

MS. MALONEY: Okay. Thank you. That's all I have.

HEARING OFFICER: Thank you.

Is there anyone else this evening?

Yes, Traci.

MS. BARKLEY: I just wanted to ask one follow-up because you mentioned the mercury monitoring that's being done in EPA's Method 1631-E. And I just

wondered if you could explain whether -- how that test works. Is it a water column test? Does it include sediments? Is it a filtered water sample that then is tested?

MR. MOSHER: USEPA 1631 is the low level mercury lab method. It measures total mercury in water. That's an unfiltered sample.

MS. BARKLEY: Okay. So that will be applied to discharges coming from the pond before they are put in the Illinois River?

MR. LISKA: Correct.

MS. BARKLEY: And when are those samples required to be taken?

MR. LISKA: It's in the permit.

MS. WILLIAMS: You mean how often or --

MR. LISKA: How often or --

MS. BARKLEY: Well, I just wonder if the monitoring plan that's put in place is likely to catch a storm event, for example, when you might have more suspended solids coming out, which is what we're concerned about, and mercury being sorbed to. How likely is it that the samples collected by Dynegy and submitted to a lab for analysis with Method 1631-E are going to detect the amounts of mercury that are -- are

going to, to some extent, be released into Illinois River over a year's time?

MR. LISKA: I'm sorry. Could you repeat that?

MS. BARKLEY: Mercury is collected four times a year.

MR. LISKA: Correct.

MS. BARKLEY: Is that right? As required by the permit.

MR. LISKA: Uh-huh.

MS. BARKLEY: At three of the outfalls. It's up to the facility -- it's up to Dynegy when they collect those four samples; correct?

MR. LISKA: Within -- right, within the quarter. Within certain months of the quarter, yes.

MS. BARKLEY: So isn't it possible that Dynegy will collect those four samples at times when there is a discharge but not when the sediment is stirred after, say, a rain event when there is likely to be more loading? I'm just wondering if there's a fudge factor that the agency considers knowing that there will be additional releases of sediments and mercury and everything else absorbed to it that's not being caught by the four samples that are being

collected by the applicant.

MR. MOSHER: I mean, the ash pond doesn't have a watershed. Correct, Mark? In other words, there's not stormwater runoff that's going into the ash pond that's going to stir things up.

MS. BARKLEY: But there is storm activity and rain that's --

MR. LISKA: Right. There's rain directly into the ash pond, but there's no other stormwater discharges that go to the ash pond other than what is directly, you know, aimed down from the sky.

MS. BARKLEY: But there's also the 15.38 million gallons per day coming from 002 into 005; right? I mean, that -- that is also being added, mixed, and contributes to the discharge from 005.

MR. LISKA: I believe so. Correct.

MS. BARKLEY: So I guess my question is, you know, has the agency looked at the additional pollutant loading that might be discharged to the Illinois River that won't be detected or is likely not to be detected by Dynegy?

MR. LISKA: We'll look into that. We'll look into that, whether it being stirred up or the extra dilution affects -- will have any effect on the

testing.

MS. BARKLEY: Okay. But the 1631-E does not require filtering. It's a --

MR. MOSHER: The samples must not be filtered. It's total mercury that must be measured. So that implies and demands an unfiltered sample.

MS. BARKLEY: So that would be both mercury that's in the water column and in -- and sorbed to the sediments that could be detected with that test.

MR. MOSHER: Sediments that are mixed up with the water, yes.

HEARING OFFICER: Suspended.

MS. BARKLEY: Okay. Thank you.

HEARING OFFICER: Thank you, Traci.

Is there anyone that has any additional comments?

Okay. Joyce, yes.

MS. BLUMENSHINE: I apologize. I have one last question that I forgot to ask you before.

Thank you, Hearing Officer Studer. Joyce Blumenshine.

I wasn't understanding why the plant has any fecal coliform discharge. Do they have -- do they

not have, like, city sewer? Or why is that in the permit?

MR. LISKA: Why they do have it?

MS. BLUMENSHINE: Yeah. I wondered what is the situation that this plant should have fecal coliform listed as -- it's on outfall 004.

MR. LISKA: Outfall 004 is a sewage treatment plant for the plant that would have -- because it -- it's municipal sewage, basically, and that would require fecal coliform.

MS. BLUMENSHINE: I see. So they are treating their own plant sewage basically?

MR. LISKA: I believe so.

MS. BLUMENSHINE: Probably. Okay. I just -- I just thought in this day and age that -- you know, I was just surprised to see that was the situation. And just for my edification, is that a low amount? A typical amount for --

MR. LISKA: How much is it? 10,000 gallons per day. That -- that's a -- that's a pretty low amount compared to other municipal sources that we see.

MS. BLUMENSHINE: For one plant. And I, again, for concerns with Illinois River, I just would

like to raise that issue.

Thank you very much.

HEARING OFFICER: Okay. Are there any other questions or comments this evening?

Okay. If not, I remind everyone that we'll be accepting written comments on this -- in this matter until the 8th of December.

And I thank you all for your attendance here this evening and participating in the NPDES process.

This hearing is adjourned.

(Hearing adjourned at 7:36 P.M.)

CERTIFICATE OF REPORTER

STATE OF ILLINOIS)
) ss.
COUNTY OF SANGAMON)

I, ROBIN A. ENSTROM, a Registered Professional Reporter, Certified Shorthand Reporter, and Notary Public within and for the State of Illinois, do hereby certify that the foregoing proceedings were taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.

_____

Notary Public in and for
the State of Illinois

EXHIBIT 5

November 7, 2011

Public comment in regards to NPDES Permit No. IL0001571 for the Havana Power Station on behalf of Traci Barkley, Water Resources Scientist for Prairie Rivers Network.

Prairie Rivers Network is the state affiliate of National Wildlife Federation, a non-profit organization that strives to protect the rivers, streams and lakes of Illinois and to promote the lasting health and beauty of watershed communities. Much of our work focuses on how policies such as the Clean Water Act and Safe Drinking Water Act are used in Illinois - laws intended to protect our waters, our environment, and, ultimately, our health. The modifications to the Havana Power Plant NPDES permit allow for the discharge of additional pollutant-laden wastewaters from Dynegy's Havana Power Station to the Illinois River in Mason County, Illinois. Surprisingly, the additional pollution proposed for the Illinois River is the result of cleaning up air pollution from the Havana Power Plant.

The investments in air pollution controls at the Dynegy Havana Power Station are the result of a lawsuit against Dynegy dating back to 1999. Federal and state governmental parties were joined in the case by a coalition of citizen groups including the American Bottom Conservancy; Health and Environmental Justice - St. Louis; Illinois Stewardship Alliance; and the Prairie Rivers Network Investments at five power stations including the Havana Power Station, Baldwin Power Station, Hennepin Generating Station, Vermilion Generating Station and Wood River Generating Station were required to reduce air pollution by over 54,000 tons per year. This has been a tremendous step forward.

We applaud the additional air pollution controls employed by Dynegy at the Havana Power Station. However, it is appalling that the pollutants being removed from air emissions are simply being moved to water. In addition to the threats from the build up of mercury concentrations in fish flesh and further up the food chain, power plant waste in the form of fly ash, bottom ash and activated mercury sorbent contains concentrated levels of arsenic, chromium and cadmium that can damage the nervous systems and other organs, especially in children.

The Illinois River is an important system for the many riverside communities that rely on clean water for their small businesses and tourist attractions, for the commercial fishermen that draw their income and livelihood from healthy fish, for the residents that rely on clean water and an healthy ecosystem for recreation and aesthetic enjoyment. The Illinois River Valley is also a rich ecosystem for many types of wildlife. In fact, historically, the Illinois River Valley has been one of the most important migration areas for waterfowl in North America. During spring and fall migrations, waterfowl are attracted to the abundance of food available in

the shallow bottomland lakes, sloughs, marshes, ponds, and forests. Though the Illinois River Valley has been greatly altered by drainage of the wetlands and sedimentation of the river, significant reinvestments into this system are producing an unprecented revival.

The Middle Illinois River system boasts 134 Heritage sites and eight Natural Area sites, totaling the sixth highest percentage of natural area acreage among the IDNR's Resource Rich Areas. There are nine state holdings--one state park, five conservation areas, one forest, and two fish and wildlife areas. Emiquon, Chautauqua and Meridosia National Wildlife Refuges are federal lands located here. Prominent natural features include sand prairies, hill prairies, springs, seeps, savannas, ponds, lakes, woods, and habitats for herons, eagles, the state threatened Illinois Chorus Frog and the Illinois Mud Turtle.

A recent multi-million dollar project at the Emiquon Preserve has created a mosaic of habitats that now support over 212 species of birds documented there including woodland, wetland and prairie species. The Nature Conservancy signed a cooperative fisheries management agreement with IDNR in 2007, and as a result nearly 2 million fish were stocked in Emiquon's waters with many species not available from hatcheries. Emiquon now has 5,800 acres of wetlands with additional adjacent restoration taking place. If you take Chautauqua National Wildlife Refuge, Emiquon National Wildlife Refuge, and the Emiquon Preserve, you are talking about roughly 14,000 acres of Illinois River Valley which will be restored into habitat that will promote the betterment of a whole variety of species."

Several of our members and members live and recreate in the Illinois River watershed and would be adversely affected by a discharge of pollutants that degrades water quality. We oppose issuance of this permit and are specifically concerned with the 15.38 MGD of North Ash Pond Discharge from outfall 002, 0.25 MGD of treated groundwater from outfall D02, the intermittent discharge of South Ash Pond Discharge from outfall 002, and the 21.5 MGD of East Ash Pond Discharge from outfall 005.

> (The following have been added to outfall 002: deep well acid cleaning wastewaters, scrubber system low-volume wastewaters, and lime slurry overflow. The following have been added to outfall 005: lime sludge and diatamaceous earth have been added to the east ash pond due to new air pollution controls, and intermittent discharges of sulfuric acid, nonchemical metal cleaning waste, and fluorescent powder from bag house leak detection.)

SPECIFIC COMMENTS/ QUESTIONS:

The permit proposes additional wastewater for discharge to the Illinois River. Per Illinois antidegradation regulations, the Agency must identify and quantify the proposed load increases and the impacts of those increases in accordance with 35 IAC 302..105(f).
QUESTION: Can you please describe the process IEPA undertook to ensure that the proposed discharges will not violate water quality standards in the Illinois River?

All of these volumes of waste- some basic-some acidic, some liquid-some dry, some salty-some high in toxic metals will be mixed together in the east ash pond and allowed to decant into the Illinois River. We would like to see evidence that the Agency has evaluated the mixture's discharge for 1) potential pollutant load increases, 2) ability to meet water quality standards in the receiving waterway, 3) the potential impact to water quality, 4) the potential impact on existing uses in the receiving stream and 5) the potential impact on underlying groundwater and potential lateral leaching through the ash pond's walls.
QUESTION: Please explain.

From multiple sources, we know that water softener backwash, reverse osmosis unit concentrate, deep well acid cleaning wastewater, lime slurry, scrubber system wastewaters and coal combustion waste (CCW), made up of fly ash and bottom ash typically includes toxic metals including arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium 226, strontium 90, selenium, sulfate total dissolved solids and zinc as well as salt including sulfates and chlorides. **QUESTION: Have reasonable potential analyses been conducted for these pollutants? How often does this permit require these constituents be monitored?**

QUESTION: Is lime being used as the sorbent for scrubbing flue gases to remove SO2? Has a chemical characterization been completed on the lime slurry? Often lime slurry will contain elevated levels of arsenic, lead, etc. Is the byproduct being oxidized to produce gypsum. If so, is it being marketed for reuse?

This permit proposes a new wastestream from acid well water rinses.
QUESTION: Was a reasonable potential analysis completed for pollutants expected in this sort of wastestream including manganese, iron, calcium, magnesium, pH, and chlorine?

QUESTION: Can you explain why there is over 15MGD from north ash pond being discharged from 002 to the east ash pond system? Why isn't there monitoring and limits for chlorides, sulfates, metals, and boron?

QUESTION: Can you explain why there is over 21 MGD from the east ash pond being discharged from 005 to the Illinois River? Why isn't there monitoring of chlorides, sulfates, metals, boron?

The antidegradation assessment states "Inorganic salts resulting from the pH adjustment will persist in the ash pond, but these will constitute a very small increase and will have no impact on the quality of the discharged effluent."
QUESTION: Please explain.

Considering that the Illinois River is currently listed as impaired for fish consumption uses due to high levels of mercury on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006 is heavily used for fishing and wildlife purposes and the River is heavily fished and hunted for both recreation and commercial interests, it is imperative that reductions in heavy metal pollution be seriously addressed. The antidegradation assessment states "Mercury that has been removed from the air emissions is expected to stay in the sorbent in the settled ash in the pond. Between zero and 0.6 pounds of mercury per day is predicted to enter the pond. This is mercury that otherwise would have been deposited in the Illinois River or other water bodies by air deposition. Whatever low levels that are discharged from the ash pond represent a decrease in loading to the environment." We take issue with this line of reasoning and the information used to support this statement.

The EPRI report entitled "Activated Carbon Injection: Effect on Fly Ash Sluice Water" was a "preliminary review of a small number of samples intended to identify potential issues and guide future research". This report was never intended to be conclusive and used to justify additional mercury loading to an already impaired system. From the abstract:
Abstract
The primary objective of this study was to investigate the effect of activated carbon injection (ACI) for mercury flue gas control on the composition of the fly ash sluice water and ash pond settleability. If the fly ash and spent carbon are wet sluiced to an ash pond, carbon particles that do not settle in an ash pond may be a compliance concern for total suspended solids (TSS), mercury as well as any other trace element that may be volatile in the flue gas and is adsorbed onto the carbon particle. A series of laboratory tests were conducted to simulate fly ash sluicing and then settling of solids in an ash pond. This investigation was a preliminary review of a small number of samples intended to identify potential issues and guide future research.
Preliminary conclusions were drawn regarding TSS, volatile metals, bromine, arsenic speciation, and selenium speciation on the three pairs of fly ash (with and without carbon) analyzed in this study. Laboratory fly ash sluicing experiments followed by settling studies were conducted to simulate fly ash sluicing followed by solids removals in a settling ash pond. The limited results indicated that most

of the carbon appeared to settle and TSS did not significantly increase in the fly ash sluice water with carbon. Therefore, the performance of fly ash ponds to remove TSS and carbon does not appear to be significantly impacted. Concentrations of volatile metals (mercury, selenium, and boron) in the sluice water did not appear to be affected by the carbon addition. Bromide, the reduced form of bromine (a chemical treatment for some carbon), was elevated in the fly ash sluice water generated from the fly ash/carbon mixture for both carbons tested (one with bromine enhancement and the second without any halogen enhancement). Arsenic and selenium were predominantly arsenate (+5) and selenite (+4), which is consistent with past fly ash sluice water samples.

Additional research is being conducted by EPRI and others into how to achieve further reductions of pollutants such as mercury, selenium and arsenic from power plant flue gas and wastewater. In addition, tests are being conducted to measure the mercury adsorption capacity of various fly ashes. Based on adsorption tests of two fly ash samples, it appears that unburned carbon content is the most significant ash property affecting adsorption with high-carbon ash having a higher mercury adsorption capacity than low-carbon ash.
QUESTION: Has this been evaluated at the Dynegy Havana Power Station?

Further, the Agency and applicant support the assumption that mercury-laden ash and sorbent will stay on the bottom of the sedimentation basins, citing a USEPA document "Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control" from February 2006, EPA-600/r-06/008, stating "mercury is strongly retained by the coal combustion residues and unlikely to be leached at levels of environmental concern. It should be noted that the primary objective of this report was to evaluate the "potential for leaching to groundwater of mercury, arsenic, and selenium removed from coal-fired power plant air emissions by air pollution control technology and, as a result, are contained in CCRs." While concluding that the application of activated carbon injection substantially increased the total mercury content in the resulting CCRs for five of the six facilities evaluated, it is important to recognize that this is the first of a series of reports that will address the potential for leaching of constituents of potential concern from CCRs. Subsequent reports will address, among other things, "Assessment of leaching for constituents of potential concern under additional management scenarios, including impoundments and beneficial use." Point is, this report did not specifically address threats from mercury-enriched residues when managed and disposed of in impoundments, such as what is proposed here at the Havana Power Station.

The public notice states that mercury loadings are expected to decrease, despite a an increase in sluice water discharges, because mercury in the ash will be absorbed by activated carbon. When asked at Newton Power Plant hearing for the basis of

this claim, IEPA stated that it relied on reports provided by Ameren prepared by the Electric Power Research Institute and US EPA, but admitted that it has never analyzed the mercury content in discharges from other coal-fired power plants in Illinois that employ activated carbon injection. Coal-fired generating facilities using activated carbon injection and ash ponds are present in the Midwest and should be assessed for on-the-ground performance of ash and associated pollutant particles to help predict expectations of settling pond performance at the Illinois River facility. The agency needs to properly quantify expected loadings of mercury by evaluating data from one or more of these sites.

In this regard, we also note that according to information found in US EPA's Enforcement and Compliance History Online (ECHO) database, Ameren's Newton mercury discharges from outfall 001 have been increasing steadily since 2009 when the facility began using activated carbon injection. In the first quarter of 2011, mercury effluent measured 17.8 ng/L, and in the second quarter of 2011, it was 18 ng/L.

IEPA must perform a reasonable potential analysis on mercury discharges and determine whether there is a reasonable potential for Dynegy's proposed discharge to contribute to the fish consumption use impairment. Given the reported high concentrations of mercury reported in similar discharges at the Newton Power PLant, the twelve months of mercury monitoring required by Special Condition 18 are not sufficient. The modified permit should set a limit for mercury discharges from Outfall 001 based on the reasonable potential analysis.

The Middle Illinois River hosts an important commercial and recreational fishery. The river's fish consumption use is already impaired by excess mercury. The applicable human health water quality criterion is 12 ng/L. Given the impairment, the agency must determine whether the discharges have the reasonable potential to cause or contribute to a violation of the applicable criterion. It is not enough to simply conclude that the water quality standard will be met because average Hg discharges equal 6.1 ng/L.

QUESTION: Have fish tissue samples from the Illinois River been analyzed for mercury? Are their plans to do so?

Illinois antidegradation rules prohibit the lowering of water quality without a showing that the lowering of water quality is necessary to accommodate important economic or social development. The analysis must demonstrate that all technically and economically reasonable alternatives to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed expansion. The Illinois Pollution Control Board has directed the IEPA to apply US EPA's Interim Economic Guidance for Water Quality Standards in making a determination as to what is economically reasonable. The guidance

provides a method by which to conduct affordability analyses on treatment alternatives.

According to US EPA guidance for wastewater discharges from coal combustion residual (CCR) impoundments, ash pond treatment systems do not effectively remove soluble metals. "Pollutants such as selenium, boron, and magnesium, are present [in coal combustion residual] mostly in soluble form and are not effectively and reliably removed by wastewater settling ponds. For metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction. Technologies more advanced than settling ponds are available and more effective at removing both soluble and particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids." *Technology-based Effluent Limits Flue Gas Desulfurization (FGD) Wastewater at Steam Electric Facilities,* Memo of James Hanlon, EPA Director Wastewater Management (June 7, 2010).

Alternative technologies discussed in the EPA guidance include chemical precipitation, biological treatment, and vapor-compression evaporation. IEPA should require Dynegy to evaluate both the economic and technical feasibility of employing these additional treatment measures in order to minimize increased mercury discharges, discharges of the bioaccumulative selenium, and other heavy metals and salts. Given the mercury fish consumption impairment in the Illinois River, it is imperative that reductions in heavy metal pollution be seriously addressed.

At a minimum, Dynegy fails to demonstrate that a dry ash landfill is not economically feasible, stating instead that they will consider the option once remaining capacity at the East Ash Pond is exhausted. Because Dynegy has failed to meet its burden regarding the showing of necessity, the increased pollutant loadings of inorganic salts, sulfates and other dissolved solids, TSS, mercury, and other heavy metals to the Illinois River cannot be permitted.

In a report on the integrity of the dam impounding the ash material in the East Ash Pond submitted to the USEPA, the current operational procedures at the Havana Power Plant, as reported by Dynegy, are as follows:

- Fly ash is transported dry to East Ash Pond System Cell 3, where it is wetted and discharged into Cell 3;
- Boiler ash is wetted at the plant, pumped to East Ash Pond System Cell 3.
- Coal pile runoff is directed to the North Ash Pond System. Decant water is then pumped to East Ash Pond System Cell 2. Dynegy reports that the North Ash Pond System is permitted to receive Coal Combustion Waste, but under current operation practices, this would only occur if discharge could not be made into the East Ash Pond System.

QUESTION: If Dynegy is transporting the ash material in a dry state, why can't it be disposed of in a dry ash landfill?

In many locations nationwide, these wastes, especially when handled wet, have degraded public ground and surface waters adversely impacting consumptive, agricultural, and industrial uses. Studies have also documented multiple developmental, physiological and behavioral abnormalities in many species of amphibians and reptiles inhabiting wetlands near coal ash disposal sites. This is the perfect opportunity for Dynegy to retire its wet ash ponds in Havana and to invest in both clean air and clean water technology by disposing of its waste in a lined dry ash landfill. Other utilities have already demonstrated the feasibility of this option including Ameren's Coffeen facility and Electric Energy's Joppa facility.

QUESTION: What is the anticipated life of the power station?

QUESTION: What attempts have been made to market the currently produced ash material.

QUESTION: Can you please describe for us what groundwater monitoring is underway? Results? Is there evidence of groundwater contamination? What is being done to correct situation?

QUESTION: Are there active wells in the vicinity? Have the owners/users been notified of the potential for contamination?

QUESTION: Other than permit the discharge and contaminated stormwater, what are the Agency and the applicant doing to minimize the pollution from this ash pond?

QUESTION: Are there public water supply (PWS) intakes downstream of where the Havana Power Station discharges? If so, have potential impacts from the proposed discharge to this designated use been considered?

Of the settlement case with Illinois Power/Dynegy, the Assistant Attorney General stated "The citizens of Illinois could not have asked for a better result concerning our agreement with Illinois Power (Dynegy subsidiary)". Nearly 12 years later, I now think we can. The intention of that lawsuit and ultimately, the settlement, was that pollution would be removed, not MOVED. We can have clean air and clean water and are hereby demanding it. Prairie Rivers Network and our members oppose this permit and respectively ask for you to deny its issuance.

EXHIBIT 6

June 10, 2011

Via email to mark.liska@Illinois.gov, faxed to 217/782-9891 and US mail

Mark E. Liska
Illinois EPA
Division of Water Pollution Control
Permit Section
1021 N Grand Ave East
PO Box 19276
Springfield, IL 62794-9276

Re: NPDES Permit No. IL0001571, Notice No. MEL: 10062309.bah
Dynegy Midwest Generation, Inc, Havana Power Station
REQUEST FOR HEARING

Dear Mr. Liska:

These comments are submitted on behalf of Prairie Rivers Network and the Illinois Chapter of the Sierra Club, regarding the above referenced draft permit for the discharge of 393 MGD of condenser cooling water, the intermittent discharge of Units 1-5 Roof Drainage, 15.38 MGD of North Ash Pond Discharge, 9.12 MGD of Cooling Tower Blowdown, 0.25 MGD of treated groundwater, the intermittent discharge of South Ash Pond Discharge, 0.01 MGD of treated plant effluent, 21.5 MGD of East Ash Pond Discharge, the intermittent discharge of Unit 6 Roof Drainage and circulation cooling water system head tank overflow, and intermittent discharge of stormwater runoff from the northern property of the Havana Power Station into the Illinois River in Mason County, Illinois.

Prairie Rivers Network (PRN) is the state affiliate of the National Wildlife Federation, a non-profit organization that strives to protect the rivers, streams and lakes of Illinois and to promote the lasting health and beauty of watershed communities. Several of our members and members of the Illinois Chapter of the Sierra Club (Sierra Club), a statewide organization representing over 26,000 individuals committed to protecting the Illinois environment, live in, recreate

within and draw their employment and income from the Illinois River watershed and would be adversely affected by a discharge of pollutants that degrades water quality.

Objections

As detailed below, we object to the issuance of this permit for the following reasons which are described in further detail in the following paragraphs:

I) The Agency has Failed to Fully Identify and Quantify Proposed Pollutant Load Increases and the Potential Impacts of those Load Increases on the Affected Waters as Required by 35 IAC 302.105 c) 2)and f) 1) B).

II) Appropriate Permit Limits and Monitoring Requirements have not Been Assigned to Assure Water Quality Standards in the Receiving Streams will be Met.

III) Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 (c)(B)(iii) has not been satisfactorily addressed in that alternatives for minimizing increases in pollutant loadings have not been fully explored.

* * * * *

I) The Agency has Failed to Fully Identify and Quantify Proposed Pollutant Load Increases and the Potential Impacts of those Load Increases on the Affected Waters as Required by 35 IAC 302.105 c) 2)and f) 1) B).

The Agency must identify and quantify the proposed load increases and the impacts of those increases in accordance with 35 IAC 302.105 (f)(i). We are concerned that the cumulative, additive and synergistic impacts of potential pollutant load increases have not been fully identified and evaluated for potential impacts to water quality. For instance, this modified permit adds several new waste streams to the Illinois River via the east ash pond and Outfall 002: including 1) deep well acid cleaning wastewaters, 2) scrubber system low-volume wastewaters including sump discharges, service water strainer backwash waters and miscellaneous floor and storm water drains 3) lime slurry overflow.; and via the east ash pond and Outfall 005, including: 1) lime sludge, 2) diatomaceous earth, 3) intermittent discharges of sulfuric acid, nonchemical metal cleaning waste and fluorescent powder. All of these volumes of waste- some basic-some acidic, some liquid-some dry, some salty-some high in toxic metals will be mixed together in the east ash pond and allowed to decant into the Illinois River. We would like to see

evidence that the Agency has evaluated the mixture's discharge for 1) potential pollutant load increases, 2) ability to meet water quality standards in the receiving waterway, 3) the potential impact to water quality, 4) the potential impact on existing uses in the receiving stream and 5) the potential impact on underlying groundwater and potential lateral leaching through the ash pond's walls.

II) Appropriate Permit Limits and Monitoring Requirements have not Been Assigned to Assure Water Quality Standards in the Receiving Streams will be Met.

IEPA must include effluent limits necessary to achieve water quality standards in the receiving water. 40 C.F.R. § 122.44(d) (1). Limitations must control pollutants that "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to" a violation of water quality standards. 40 C.F.R § 122.44(d)(1)(i). IEPA must consider a variety of factors when determining whether a discharge has the reasonable potential to cause or contribute to a violation of water quality standards, including, the variability of the pollutant in the effluent, the dilution of the effluent in the receiving water, the pollutant, the type of industry, and the receiving water quality and use.[1]

From multiple sources, we know that water softener backwash, reverse osmosis unit concentrate, deep well acid cleaning wastewater, lime slurry, scrubber system wastewaters and coal combustion waste (CCW), made up of fly ash and bottom ash typically includes toxic metals including arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium 226, strontium 90, selenium, sulfate total dissolved solids and zinc as well as salt including sulfates and chlorides. It is IEPA's responsibility to require monitoring for those constituents that have potential to be in the waste stream and set protective limits in the event that these harmful constituents are detected. Of these constituents, the current permit does not set a permit limit for any and a quarterly monitoring requirement for mercury.

We understand the ash ponds will receive contributions from multiple wastestreams including: ash hopper overflow, boiler blowdown, condensate polisher wastes, floor and sump drainage, ash handling equipment drainage, water softener backwash, cooling tower blowdown, deep well acid cleaning wastewater, scrubber system wastewaters, lime slurry overflows and coal pile runoff among others. We also understand that some dilution and settling will be possible in these ponds, though without monitoring and

[1] 40 C.F.R. § 122.44(d)(1)(ii), U.S. EPA, TECHNICAL SUPPORT DOCUMENT FOR WATER QUALITY-BASED TOXlCS CONTROL, EPA/505/2-90-001, 50 (March 1991).

permit limits, it is unclear how the agency will ensure that water quality standards for these potential toxins will be met in the receiving river. As such, we request the permit include monthly water quality monitoring (rather than twice per year as in Special Condition 21) and either a RPA for each of the following constituents showing there is no potential to exceed water quality standards or set concentration limits for arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, copper, dissolved iron, lead, manganese, mercury, nickel, radium 226, strontium 90, selenium, sulfate, total dissolved solids and zinc in line with CFR(B) Section 302.

III) Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 (f)(D) has not been satisfactorily addressed in that alternatives for minimizing increases in pollutant loadings have not been fully explored.

On June 7, 2010, James Hanlon, EPA's Director of Wastewater Management issued an interim guidance to assist National Pollutant Discharge Elimination System (NPDES) permitting authorities establish appropriate permit requirements for wastewater discharges from Flue Gas Desulfurization (FGD) systems and coal combustion residual (CCR) impoundments at Steam Electric Power Plants.[2] The EPA guidance *Technology-based Effluent Limits Flue Gas Desulfurization (FGD) Wastewater at Steam Electric Facilities* offers examples of alternatives which should be explored for this facility in order to satisfy 35 Ill. Adm. Code 302.105 (f)(D). As the guidance[3] states, "Pollutants such as selenium, boron, and magnesium, are present mostly in soluble form and are not effectively and reliably removed by wastewater settling ponds. For metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction. Technologies more advanced than settling ponds are available and more effective at removing both soluble and particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids."

Alternative technologies discussed in this guidance include chemical precipitation, biological treatment, vapor-compression evaporation. IEPA should require Dynegy Midwest Generation to evaluate these additional treatment measures in order to address and minimize the proposed increased mercury discharges, discharges of the bioaccumulative selenium, as well as other heavy metals and salts. Considering that the Illinois River is currently listed as impaired for fish consumption uses due to high levels of mercury on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006 is heavily used for fishing and wildlife purposes and the River is heavily fished and hunted

[2] http://www.epa.gov/npdes/pubs/hanlonccrmemo.pdf
[3] http://www.epa.gov/npdes/pubs/steamelectricbpjguidance.pdf

for both recreation and commercial interests, it is imperative that reductions in heavy metal pollution be seriously addressed. There are also many downstream water users including industrial facilities, agricultural irrigators and recreational boaters that rely on clean water.

We would argue that additional steps could be taken to separate, handle and treat wastestreams in an effort to reduce pollutant loading or exacerbation of existing loading issues. For example, the applicant might:

-neutralize deep well acid cleaning rinse water in a separate basin or tank and then send to the river through a separate discharge point
-landfill mercury sorbent waste product
-handle other miscellaneous wastestreams in separate lined basins

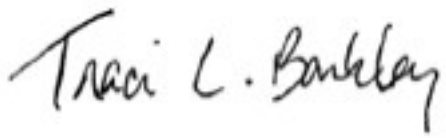
Dynegy has the option of switching to dry ash handling and disposal, which would save unspecified, yet great, amounts of power plant waste from entering the Illinois River system. Switching the Havana Power Station to dry ash handling and disposal could ultimately reduce loading to the Illinois River of several additional pollutants. While we recognize and applaud the additional air pollution controls employed by Havana Power Station, it is appalling that the pollutants being removed from air emissions are not proposed for responsible disposal instead just moved to a new medium – water. Besides the obvious problem with high mercury concentrations and loading, power plant waste in the form of fly ash, bottom ash, activated mercury sorbent, etc. contains concentrated levels of contaminants like arsenic, chromium and cadmium that can damage the nervous systems and other organs, especially in children. Further, in many locations nationwide, these wastes have degraded our public ground and surface waters impacting many uses including consumptive, agricultural, industrial and environmental. Studies have also documented multiple developmental, physiological and behavioral abnormalities in many species of amphibians and reptiles inhabiting wetlands near coal ash disposal sites.

Finally, several other coal-fired electric generating stations in the Midwest sell their coal combustion waste to be used as beneficial by-products. Examples include use as fill material on construction projects or use by asphalt and roof shingle companies. Consideration of reduction of ash material to be sluiced and ultimately discharged to the Illinois River was not discussed in the antidegradation assessment. Examination of local markets for beneficial reuse of coal ash and promotion of such reuse should be explored as part of this permit application and antidegradation assessment. Not only would this cost nothing for Dynegy Midwest Generation, it would actually generate funding for other projects at the facility, possibly appropriate mercury treatment technology.

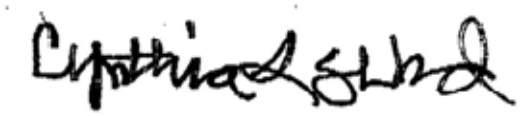
* * * * *

Enclosed, please find a petition with 19 signatures of Havana citizens "requesting the Illinois Environmental Protection Agency hold a public hearing in Havana, IL, regarding the renewal of the state water pollution permit for the Havana power plant." Each signatory is "concerned about mercury and other pollutants going into the Illinois River." A public hearing will allow citizens to share their experiences and concerns with living near ash ponds and how more pollution of the Illinois River will impact their lives. There is substantial interest in the ongoing operation of the Havana Power Station and many citizens have questions regarding what is proposed to be modified with this NPDES permit. Thank you for considering our requests for a public hearing.

Sincerely,



Traci Barkley
Water Resources Scientist
Prairie Rivers Network

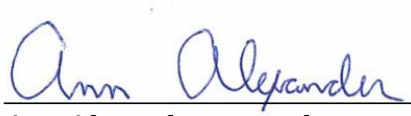


Dr. Cynthia Skrukrud
Clean Water Advocate
Illinois Chapter of the Sierra Club

cc: Dynegy Midwest Generation, Inc.
Havana Power Station
15260 North State Rte. 78
Havana, Illinois 62644

CERTIFICATE OF SERVICE

I, Ann Alexander, the undersigned attorney, hereby certify that I have served via electronic mail the attached **Petition for Appeal of a Decision by the Illinois Environmental Protection Agency** upon the persons listed in the foregoing Notice of Filing, by depositing said documents in the United States Mail, postage prepaid, from 2 N. Riverside Plaza, Suite 2250, Chicago, IL 60606, before the hour of 5:00 p.m., on this 18th day of October, 2012.



Ann Alexander, Natural Resources Defense Council