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**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**  
**JUN 18 2003**

STATE OF ILLINOIS  
*Pollution Control Board*

**DYNEGY MIDWEST GENERATION, INC.,** )  
**(BALDWIN POWER STATION)** )  
) )  
) **Petitioner,** )  
) )  
) **v.** )  
) )  
**ILLINOIS ENVIRONMENTAL** )  
**PROTECTION AGENCY,** )  
) )  
) **Respondent.** )

**PCB 03- 234**  
**(Provisional Variance)**

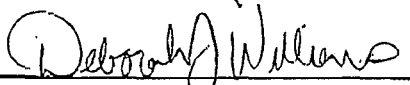
**NOTICE**

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

Brett J. Marshall  
Water Programs Group Leader  
Dynegy Midwest Generation, Inc.  
2828 North Monroe Street  
Decatur, Illinois 62526-3269

Please take notice that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the original and nine (9) copies of the **PROVISIONAL VARIANCE RECOMMENDATION** of the Illinois Environmental Protection Agency, a copy of which is served upon you.

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

By:   
Deborah J. Williams  
Assistant Counsel  
Division of Legal Counsel

Date: June 18, 2003  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276  
217/782-5544

**THIS FILING IS SUBMITTED ON RECYCLED PAPER**

*93-5*

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD** **RECEIVED**  
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JUN 18 2003

**DYNEGY MIDWEST GENERATION, INC.,** )  
**(BALDWIN POWER STATION)** )

STATE OF ILLINOIS  
*Pollution Control Board*

**Petitioner,** )

v. )

PCB 03- 234  
**(Provisional Variance)**

**ILLINOIS ENVIRONMENTAL** )  
**PROTECTION AGENCY,** )

**Respondent.** )

**ILLINOIS EPA RECOMMENDATION**

The Illinois Environmental Protection Agency ("Illinois EPA") recommends that the requested provisional variance be granted subject to the conditions set forth in paragraph ten (10) below. ACTION MUST BE TAKEN BY THE ILLINOIS POLLUTION CONTROL BOARD ("BOARD") WITHIN 2 DAYS OF NOTIFICATION OF THIS RECOMMENDATION FROM THE ILLINOIS EPA.

1. On June 12, 2003, the Illinois EPA received a request for a provisional variance from Dynegy Midwest Generation-Baldwin Power Station ("Petitioner"). The provisional variance request letter is attached and incorporated as Exhibit A. Petitioner is requesting a provisional variance to allow temporary relief from the total suspended solids ("TSS") effluent concentration limits of Outfall 001 during the dredging of the secondary cell of the ash pond system.

2. Petitioner owns and operates a coal-fired generating station located near Baldwin, Illinois in St. Clair and Randolph Counties. The station is designed to provide a maximum generating capacity of 1800 megawatts. Petitioner describes the ash pond

wastewater treatment system as, "The ash pond system discharges approximately 20.6 million gallons of wastewater (average flow) per day. Of this total, approximately 60 percent consists of fly ash sluice water and 40 percent bottom ash sluice water. Each discharge is routed to its separate ash disposal cell before combining in the secondary pond. The mixed fly and bottom ash waters then enter a final clarification (tertiary) pond prior to entering a channel, which discharges to the Kaskaskia River." Exhibit A at 2. Petitioner is presently required by its National Pollutant Discharge Elimination System ("NPDES") Permit No. IL0000043 to meet TSS effluent limits of 15 mg/l (monthly average) and 30 mg/l (daily maximum).

3. In describing the need for provisional variance, Petitioner states, "[I]nitially it was believed that higher than average flows through the ash pond were causing the TSS exceedences. It wasn't until after the flows returned to normal and the exceedences continued, that it was discovered that only 1-2 feet of water was available for settling, which is not sufficient for ash clarification." Exhibit A at 1. The Petitioner further states, "[B]aldwin Power Station believes that immediate dredging of the secondary pond must be initiated before flows through the ponds increase again, which would re-suspend even more ash, resulting in higher TSS concentrations at the ash pond discharge." Exhibit A at 2.

4. Petitioner addresses three alternative methods for compliance. The first two alternatives of storing wastewater on-site and filtration are technically not feasible. The third alternative of ceasing plant operations would be extremely burdensome. The Illinois EPA agrees with the Petitioner that no other technically feasible and economically reasonable alternative is known that can insure compliance with the NPDES permit while repairs are

being completed.

5. The Petitioner has indicated, and the Illinois EPA concurs, that denial of the provisional variance request would impose an arbitrary and unreasonable hardship on the Petitioner.

6. The environmental impact on the receiving stream caused by this variance request is expected to be minimal.

7. There are no federal laws that would preclude the granting of this provisional variance.

8. The Illinois EPA believes that no public water supply will be adversely affected by granting this provisional variance.

9. The Petitioner has submitted no provisional variance requests to the Illinois EPA in calendar year 2003. Baldwin Power Station was granted a 45-day provisional variance for TSS effluent limitations from the ash pond system on September 2, 2002 (PCB 03-27).

10. The Illinois EPA recommends that the Petitioner be granted a variance from 35 Ill. Adm. Code 304.141(a) and the effluent limits in NPDES Permit No. IL000004 as they apply to total suspended solids for Outfall 001, subject to the following conditions:

a. This variance shall begin June 16, 2003, and continue for forty-five (45) days from that date or until completion of the project, whichever occurs earlier.

b. During the variance period, the Petitioner shall meet the monthly average effluent concentration limits of 50 mg/l for TSS.

c. Petitioner shall complete the dredging and repair related work on the

secondary cell of its ash pond system as expeditiously as possible. During the provisional variance period, the Petitioner shall operate the facility in such a manner so as to produce the best effluent possible.

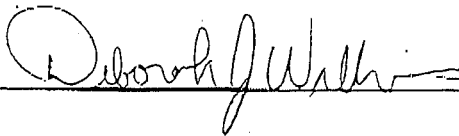
d. Petitioner shall continue to monitor and maintain compliance with all other parameters and conditions specified in NPDES Permit No. IL0022403.

e. Petitioner shall notify Barb Conner of the Illinois EPA by telephone at 217/782-9720, when repairs on the wastewater treatment system are completed. Written confirmation shall be sent within five (5) days to the following address:

Illinois Environmental Protection Agency  
Bureau of Water, Compliance Assurance Section  
1021 North Grand Ave. East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
Attn: Barb Conner

f. Within ten (10) days of the date of the Board's order, the Petitioner shall execute a Certificate of Acceptance and agreement which shall be sent to Barb Conner at the address indicated above.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: 

Deborah J. Williams  
Assistant Counsel  
Division of Legal Counsel

Date: June 18, 2003

1021 North Grand Ave. East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544

# Exhibit A

Dynegy Midwest Generation, Inc.  
2828 North Monroe Street  
Decatur, Illinois 62526-3269

RECEIVED  
JUN 16 2003  
IEPA

June 12, 2003

Mr. Mike Garretson, Manager  
Compliance Assurance Section  
Division of Water Pollution control  
Illinois Environmental Protection Agency  
P.O. Box 19276  
Springfield, IL 62794-9276



Re: Baldwin Power Plant  
NPDES Permit No. IL0000043  
Provisional Variance Request

Dear Mr. Garretson:

I. Currently Applicable Regulations and Permit Requirements

In accordance with Title IX, Section 35, Subsection (b) of the Illinois Environmental Protection Act; Part 180, Chapter 2, Subtitle A, Title 35 of the IAC; Procedures and Criteria for Reviewing Applications for Provisional Variances; and Title 40 of the Code of Federal Regulations, Protection of the Environment, Part 122.41 (n), Dynegy Midwest Generation (DMG) requests that a provisional variance be granted from the daily maximum and monthly average total suspended solids (TSS) effluent limitations for the ash pond discharge (outfall 001) at Baldwin Power Station. The power plant is authorized to discharge wastewaters under the authority of NPDES Permit No. IL0000043, which was issued on January 2, 1998.

The purpose of the provisional variance is to provide temporary relief from the TSS effluent limits to allow internal maintenance-related work to be conducted in the secondary cell of Baldwin Power Station's ash pond system. Over the past several months, the ash pond system at Baldwin Power Station has had difficulty meeting TSS effluent limitations. In an attempt to solve this problem, a portion of the secondary pond will be dredged immediately and settling capacity will be restored.

Initially it was believed that higher than average flows through the ash pond were causing the TSS exceedences. It wasn't until after the flows returned to normal and the exceedences continued, that it was discovered that only 1-2 feet of water was available for settling, which is not sufficient for ash clarification. Additional TSS samples were collected from the bottom ash field, the fly ash field, the secondary pond (fly ash and bottom ash combine at this point), and the tertiary pond. Through this sampling program, it was discovered the effluent from the fly ash pond and the effluent from the bottom ash field would meet effluent limitations if the compliance sampling points were located in these individual cells. However, when the two effluents combine in the

## Page Two

secondary pond the TSS concentrations increase. The reason for the TSS increase is because flow through the secondary pond is re-suspending previously deposited ash and carrying it into the tertiary pond. Baldwin Power Station believes that immediate dredging of the secondary pond must be initiated before flows through the ponds increase again, which would re-suspend even more ash, resulting in higher TSS concentrations at the ash pond discharge.

During the period of the provisional variance, DMG is requesting that the current effluent limitations for total suspended solids of 15 mg/l for a 30-day monthly average be raised to 50 mg/l and the daily maximum limit be eliminated. The provisional variance is needed to allow dredging to be completed in the southern-most portion of the secondary pond. Prior experience from dredging operations has shown that Baldwin Power Station will need the requested provisional variance concentrations to ensure compliance.

### II. Description of Business Activity

The Baldwin Power Station is a coal-fired generating station located near Baldwin, Illinois in St Clair and Randolph counties. Three generating units provide a maximum capacity of 1680 megawatts.

### III. Current Wastewater Flows, Pollutant Loads, and Treated Effluent Quality

The ash pond system discharges approximately 20.6 million gallons of wastewater (average flow) per day. Of this total, approximately 60 percent consists of fly ash sluice water and 40 percent bottom ash sluice water. Each discharge is routed to its separate ash disposal cell before combining in the secondary pond. The mixed fly and bottom ash waters then enter a final clarification (tertiary) pond prior to entering a channel which discharges to the Kaskaskia River (Attachments 1).

### IV. Environmental Impact Assessment

DMG believes that the impact of the somewhat elevated TSS concentrations to the Kaskaskia will be negligible due to the relatively low ratio of discharge from the ash pond system (31.9 cfs) compared to current river flows. According to the Illinois State Water Survey, estimated flows at the Venedy gauging station above Baldwin Power Station's river intake are 2130 cfs.

### V. Potential Hardship

No immediate, readily-implementable alternative for complying with the ash pond outfall TSS limitations is available, other than ceasing plant operations. Ceasing plant operations would impose an arbitrary and unreasonable hardship on the station and DMG. The purpose of the dredging is to immediately restore compliance in the ash pond system and to prevent future TSS violations from occurring. This provisional variance would allow expedited dredging while maintaining station operation. Baldwin Power Station is very committed to returning the ash pond system to compliance as soon as possible.



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### VI. Proposal

According to the results of the ash pond depth survey and the additional TSS samples that were collected in the individual cells, the secondary pond is the probable source of elevated TSS. This proposed maintenance-related work activity will begin during the third week of June and is estimated to be completed around late July or early August.

### VII. Alternate Methods of Maintaining Compliance with Permit Limits During Period of Provisional Variance

DMG has considered, and rejected, the following alternative means for maintaining compliance with the Plant's NPDES permit during this project:

#### A. Ceasing Plant Operations

This option would entail shutting down the plant entirely, which obviously cannot be done due to the need for generating electricity during the summer months. The cost to the company to shut down the plant would be extremely burdensome, as it would be necessary to purchase electricity from other utilities.

#### B. Storing Wastewater On-site

It is possible to store some ash sluice water for a number of days, however, it is not possible to store wastewater for the entire projected time period.

#### C. Filtration

The plant is not aware of any portable filtration equipment that could be brought on-site to handle almost 20 MGD. Smaller filtration equipment would clog quickly and not be able to handle the significant volume.

### VIII. Variance Period

A provisional variance authorizing the release of ash pond effluents in excess of the TSS limit is requested for June, 2003 and extending for 45 days.

### IX. Other Variances

Baldwin Power Station was granted a 45-day Provisional Variance (PCB 03-27) for TSS effluent limitations from the ash pond system. This provisional variance was issued September 2, 2002 and allowed dredging of the ash pond system to be performed.

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X. Current NPDES Permit Status

The existing NPDES permit for the plant was issued January 2, 1998 and has an expiration date of January 31, 2003. An application for renewing the NPDES permit was submitted on July 31, 2002 and a final permit is expected later this year.

XI. Activities before the Illinois Pollution Control Board

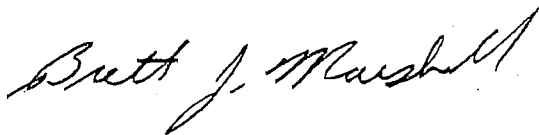
At this time, DMG has no other requests before the Pollution Control Board, nor does the IPCB have any orders pending at this plant.

XII. Conclusion

Baldwin Power Station is committed to minimizing any adverse environmental effects during the provisional variance period by efficiently managing the remaining ash pond cells still in operation. DMG believes that should the provisional variance not be granted, the result would be TSS noncompliance in the ash pond effluent during the period work, which is occurring in the secondary pond. The Baldwin Power Station believes it is critically important that the dredging begin immediately to prevent ash from carrying through the secondary cell and accumulating in the tertiary cell, elevating TSS concentrations even more.

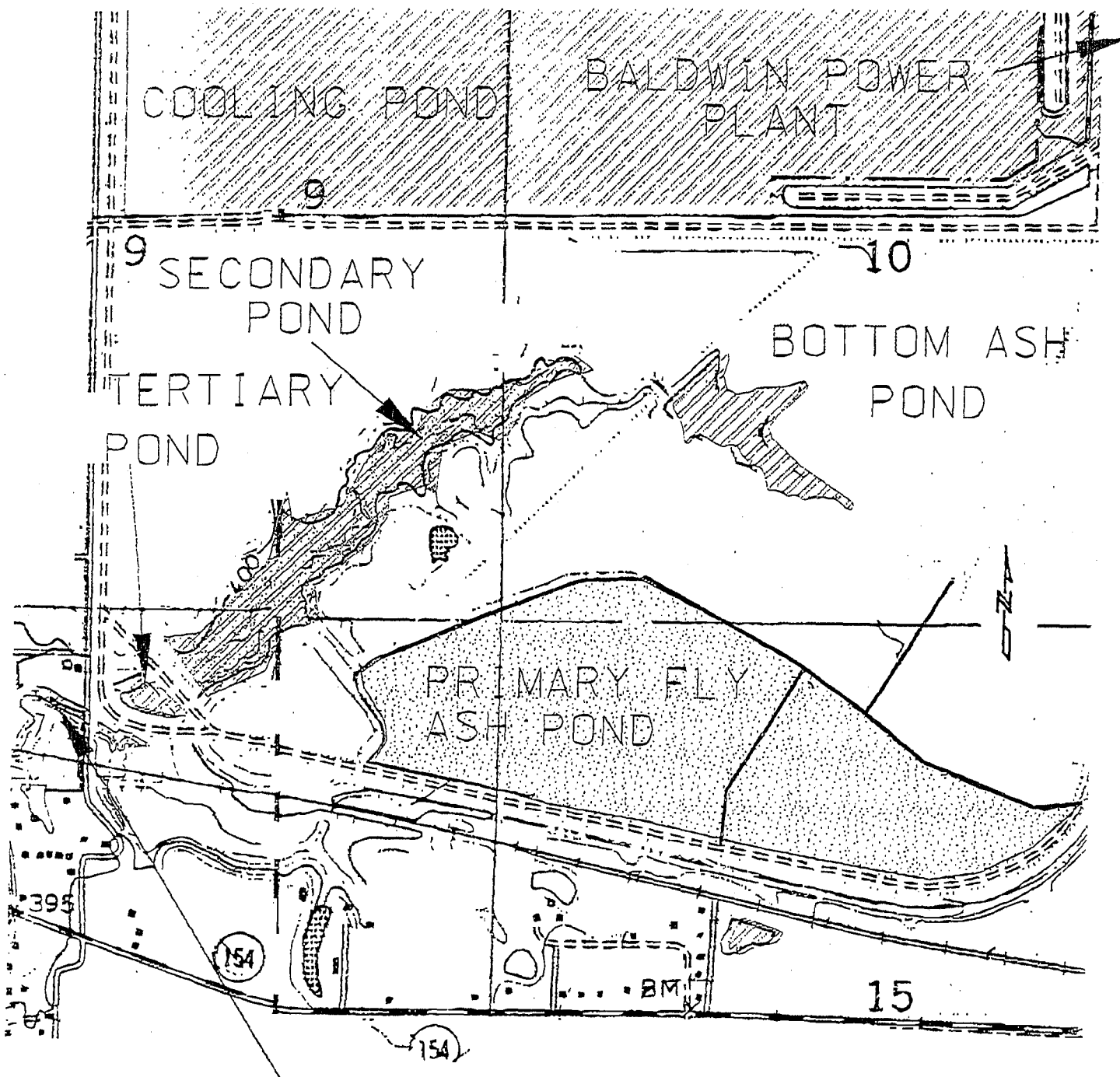
Should you need additional information regarding this provisional variance request, please contact me at 217/876-3934.

Sincerely,






Brett J. Marshall  
Water Programs Group Leader

Attachment



DISCHARGE TO  
KASKASKIA  
RIVER

**LEGEND**

-  FLY ASH
-  BOTTOM ASH
-  COMBINED  
BOTTOM & FLY ASH

Baldwin Power Plant Ash Pond System.

**RECEIVED**

CLERK'S OFFICE

JUN 18 2003

STATE OF ILLINOIS  
Pollution Control Board

STATE OF ILLINOIS )  
 )  
COUNTY OF SANGAMON )

**PROOF OF SERVICE**

I, the undersigned, on oath state that I have served the attached **PROVISIONAL VARIANCE** upon the persons to whom it is directed, by placing a copy in an envelope addressed to:

Ms. Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph St. Suite 11-500  
Chicago, Illinois 60601  
**(FAX and OVERNIGHT MAIL)**

Brett J. Marshall  
Water Programs Group Leader  
Dynegy Midwest Generation, Inc.  
2828 North Monroe Street  
Decatur, Illinois 62526-3269  
**(FIRST CLASS MAIL)**

and mailing it from Springfield, Illinois on June 18, 2003, with sufficient postage affixed as indicated above.

*Deborah J. Wallin*

**SUBSCRIBED AND SWORN TO BEFORE ME**

this 18<sup>th</sup> day of June, 2003

*Brenda Boehner*  
Notary Public



**THIS FILING IS SUBMITTED ON RECYCLED PAPER**