

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

NATURAL RESOURCE DEFENSE COUNCIL, )  
PRAIRIE RIVERS NETWORK and SIERRA )  
CLUB, )

Petitioners, )

v. )

ILLINOIS ENVIRONMENTAL PROTECTION )  
AGENCY and DYNEGY MIDWEST )  
GENERATION, INC., )

Respondents. )

PCB No. 13-17  
(Third-Party NPDES Permit Appeal)

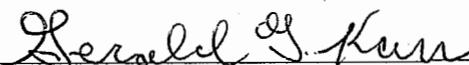
**NOTICE OF ELECTRONIC FILING**

TO: Attached Service List

PLEASE TAKE NOTICE that on February 24, 2014, I electronically filed with the Clerk of the Illinois Pollution Control Board, Respondent's, Illinois Environmental Protection Agency, Additional Appearance, Cross-Motion for Summary Judgment and Combined Memorandum of Law in Response to Petitioners' Motion for Summary Judgment and in Support of Respondent's Cross-Motion for Summary Judgment, a copy of which is attached and served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: 

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Dated: February 24, 2014

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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GENERATION, INC., )

Respondents. )

**RESPONDENT ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S CROSS-MOTION FOR SUMMARY JUDGMENT**

NOW COMES, Respondent, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, ("Illinois EPA" or "Agency"), by and through, Lisa Madigan, Attorney General of the State of Illinois, and, pursuant to 35 Ill. Adm. Code 101.500, 101.508 and 101.516, hereby respectfully moves the Illinois Pollution Control Board ("Board") to enter summary judgment in favor of the Illinois EPA and against the Petitioners, NATURAL RESOURCE DEFENSE COUNCIL, PRAIRIE REVIERS NETWORK and SIERRA CLUB ("Petitioners") in that there exist herein no genuine issues of material fact and that the Petitioners have failed to sustain their burden of proving that the NPDES permit, as issued, would violate the Act or Board regulations. Therefore, Illinois EPA is entitled to judgment as a matter of law and the NPDES permit should be upheld. In support of this cross-motion for summary judgment and in response to the Petitioners' motion for

summary judgment, the Agency had filed a combined memorandum of law.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
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**AGENCY'S COMBINED MEMORANDUM IN RESPONSE TO PETITIONERS'  
MOTION FOR SUMMARY JUDGMENT AND IN SUPPORT OF ITS CROSS-MOTION  
FOR SUMMARY JUDGMENT**

NOW COMES, Respondent, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, ("Illinois EPA" or "Agency"), by and through, Lisa Madigan, Attorney General of the State of Illinois, and, pursuant to 35 Ill. Adm. Code §101.500, §101.508 and §101.516, hereby respectfully moves the Illinois Pollution Control Board ("Board") to enter summary judgment in favor of the Illinois EPA and against the Petitioners, NATURAL RESOURCE DEFENSE COUNCIL, PRAIRIE RIVERS NETWORK and SIERRA CLUB ("Petitioners") in that there exist herein no genuine issues of material fact and that the Petitioners have failed to sustain their burden of proving that the NPDES permit, as issued, would violate the Act or Board regulations. Therefore, Illinois EPA is entitled to judgment as a matter of law and the NPDES permit should be upheld. In response to Petitioners' motion for summary judgment and in support of said cross-motion for summary judgment, the Illinois EPA states as follows:

## I. INTRODUCTION

Petitioners have filed a Petition for Review with the Board seeking review of a decision by the Illinois EPA to renew National Pollutant Discharge Elimination System (“NPDES”) Permit No. IL0001571 (“Permit”) for Dynegy Midwest Generation Inc.’s (“Dynegy”) Havana Power Station (“Havana Facility”). Subsequently, Petitioners have filed a Motion for Summary Judgment arguing that there are no genuine issues of fact and that the Permit should be remanded to the Agency for further review and analysis. The Agency, today, has filed a Cross-Motion for Summary Judgment, agreeing that there are no genuine issues of fact, but that the Agency’s Administrative Record filed in this proceeding demonstrates that the Agency conducted the appropriate review and analysis needed to issue the Permit. Petitioners have failed to sustain the burden needed to allow the Board to remand the Permit to the Agency. The Agency respectfully request that the Board enter an Order denying Petitioners’ Motion for Summary Judgment, granting the Agency’s Cross-Motion for Summary Judgment and uphold the Permit.

## II. REGULATORY FRAMEWORK/BURDEN OF PROOF

Petitioners’ permit appeal was brought pursuant to a statutory provision which authorizes interested third-parties to appeal NPDES permits to the Board. See 415 ILCS 5/40(e) (2012).

Section 40(e) of the Act provides:

1. If the Agency grants or denies a permit under subsection (b) of Section 39 of this Act, a third party, other than the permit applicant or Agency, may petition the Board within 35 days from the date of issuance of the Agency’s decision, for a hearing to contest the decision of the Agency.
2. A petitioner shall include the following within a petition submitted under subdivision (1) of this subsection:
  - A. a demonstration that the petitioner raised the issues contained within the petition during the public notice period or during the public hearing on the NPDES permit application, if a public hearing was held; and

- B. a demonstration that the petitioner is so situated as to be affected by the permitted facility.
3. If the Board determines that the petition is not duplicitous or frivolous and contains a satisfactory demonstration under subdivision (2) of this subsection, the Board shall hear the petition (i) in accordance with the terms of subsection (a) of this Section and its procedural rules governing permit denial appeals and (ii) exclusively on the basis of the record before the Agency. The burden of proof shall be on the petitioner. The Agency and permit applicant shall be named co-respondents. 415 ILCS 5/40(e) (2012).

Section 40(e)(3) of the Act provides that the burden of proof shall be on the petitioner in third-party NPDES permit appeals such as this. 415 ILCS 5/40(e)(3) (2012). The Board has consistently applied this same statutory burden in other permit appeals brought under Section 40 of the Act, 415 ILCS 5/40 (2012). See, *e.g.*, *Panhandle Eastern Pipe Line Company v. IEPA* (January 21, 1999), PCB 98-102.

The Board has unfailingly held that Section 40(e)(3) of the Act unequivocally places the burden of proof on the petitioner, regardless of whether the petitioner is a permit applicant or a third-party. See 415 ILCS 5/40(e)(3) (2012). See, *e.g.*, *Prairie Rivers Networks v. IEPA and Black Beauty Coal Company* (August 9, 2001), PCB 01-112. In the case of a permit issued with conditions, the Board must determine that as a matter of law the application as submitted to the IEPA demonstrates that no violations of the Act or Board rules will occur if the requested permit is issued. *Jersey Sanitation v. IEPA*, PCB 00-82 (June 21, 2002) *aff'd* *IEPA v. Jersey Sanitation and PCB*, 336 Ill. App. 3d 582, 784 N.E.2d 867 (4th Dist. 2003). In the context of a third party appeal, the Board is reviewing the issuance of a permit. Thus, this review is similar to a review of contested conditions. Therefore, the Board will look at the language of the permit and the entire record to determine if the permit as issued violates the Act or Board regulations. The Board will not limit the review of the IEPA's decision to reasoning articulated in one document in the record. To limit the Board's review in such a manner ignores the substantial case law, which establishes that the

Board reviews the IEPA's decision based on the record before the IEPA. *See e.g., Jersey Sanitation* PCB 00-82; *Browning-Ferris Industries of Illinois, Inc. v. PCB*, 179 Ill. App. 3d 598, 534 N.E. 2d 616, (2nd Dist. 1989); *John Sexton Contractors Company v. Illinois (Sexton)*, PCB 88-139 (Feb. 23, 1989). *Des Plaines River Watershed Alliance, et al. v. IEPA and the Village of New Lenox*, PCB 04-88, pg. 14-15, April 19, 2007.

Summary judgment is appropriate when the pleadings, depositions, admissions on file, and affidavits disclose that there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. *Dowd & Dowd, Ltd. v. Gleason*, 181 Ill. 2d 460, 483, 693 N.E.2d 358, 370 (1998). In ruling on a motion for summary judgment, the Board "must consider the pleadings, depositions, and affidavits strictly against the movant and in favor of the opposing party." *Id.* Summary judgment "is a drastic means of disposing of litigation," and therefore it should be granted only when the movant's right to the relief "is clear and free from doubt." *Id., citing Purtill v. Hess*, 111 Ill. 2d 299, 240, 489 N.E.2d 867, 871 (1986). However, a party opposing a motion for summary judgment may not rest on its pleadings, but must "present a factual basis which would arguably entitle [it] to a judgment." *Gauthier v. Westfall*, 266 Ill. App. 3d 213, 219, 639 N.E.2d 994, 999 (2d Dist. 1994).

Summary judgment may also be appropriate in a permit appeal when the Agency record demonstrates that there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. *Clayton Chemical Acquisition, LLC v. IEPA*, PCB 98-113 at 3. (March 1, 2001) (*citing Outboard Marine Corporation v. Liberty Mutual Ins. Co.*, 154 Ill. 2d 90, 180 Ill. Dec. 691, 607 N.E.2d 1204 (1992)).

In the instant case, the record establishes "that there is no genuine issue of material fact" regarding Petitioners' challenge to the NDPEs permit issued to Dynegy by the Agency and the

Agency record supports the Permit as issued. Accordingly, summary judgment is an appropriate means of upholding the Agency's decision to renew Dynegey's NPDES Permit.

### III. STATEMENT OF FACTS

The Agency received Dynegey's NPDES permit renewal application on November 3, 2006. (R.5-404)<sup>1</sup>. As part of the renewal process Dynegey set out certain modifications to its Facility that it was seeking to include in the renewed Permit. (R. 6-10). One modification involved the construction and installation of a dry scrubber and baghouse and an activated carbon mercury sorbent injection system. (R. 9). The Permit renewal application stated that after operation of this system begins, approximately 260 tons of fly ash and sorbent residue from the baghouse will be discharged daily to the east ash pond system. (R. 9). The majority of this discharge will be fly ash with only 2.6 tons daily consisting of sorbent residue. (R. 9). Dynegey's Permit renewal application posits that the total mass of mercury adsorbed on the fly ash/ sorbent residue mixture and vitrified in the bottom ash to be discharged to the east ash pond will range from 0.0 to 0.6 pounds daily under normal operating conditions. (R. 10). Dynegey's belief is that virtually all of this entire mass of mercury will remain in the east ash pond. (R. 10).

On or about May 11, 2011, the Agency published notice and an associated draft permit stating that, it had made a determination to issue an NPDES permit to Dynegey. (R. 599-617). This public notice/fact sheet contained the Agency's draft antidegradation assessment. (R. 602-603). The Agency held a Public Informational Hearing on November 8, 2011 in Havana, Illinois. (R. 719- 812). Agency personnel were present at the Hearing to provide an overview of the NPDES permit process and specifics of Dynegey's permit request. (R. 675). At the Hearing comments and questions were received from the audience and the hearing record remained open

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<sup>1</sup> Reference to the Agency Administrative Record filed in this matter will be as follows: (R. \_\_\_).

until December 8, 2011. (R. 675). Subsequently, the Agency published a Responsive Summary to comments received in response to the draft permit and during the public informational hearing. (R. 672-691). Thereafter, on September 14, 2012, the Agency granted a reissued NPDES permit to Dynegy. (R. 697- 716). Added to the Permit after the public notice was a modified Special Condition 8 which provided for quarterly mercury monitoring throughout the life of the Permit. (R. 706).

On October 18, 2012, the Petitioners initiated the instant proceeding with the filing of their Petition for Review. Thereafter on December 18, 2013, Petitioners filed their Motion for Summary Judgment and supporting memorandum.

#### IV. ARGUMENT

##### A. Legal Standard for Summary Judgment

Section 101.516 of the Board's Procedural Rules provides, in pertinent part, as follows:

- (b) If the record, including pleadings, depositions and admissions on file, together with any affidavits, shows that there is no genuine issue of material fact, and that the moving party is entitled to judgment as a matter of law, the Board will enter summary judgment.

35 Ill. Adm. Code Section 101.516(b).

“A motion for summary judgment should be granted when the pleadings, depositions, and affidavits reveal that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” *Balla v. Gambro, Inc.*, 145 Ill. 2d 492, 508 (Ill. 1991). Furthermore, “[T]he summary judgment procedure is to be encouraged as an aid in the expeditious disposition of a lawsuit . . . .” *Bagnola v. SmithKline Beecham Clinical Labs.*, 333 Ill. App. 3d 711, 716-17 (1st Dist. 2002) (citing *Purtill v. Hess*, 111 Ill. 2d 229, 240 (1986)). “Although plaintiff is not required to prove his case at the summary judgment stage, he must

present evidentiary facts to support the elements of his cause of action.” *Richardson v. Bond Drug Co. of Illinois*, 387 Ill.App.3d 881, 885, 901 N.E.2d 973, 976 (1 Dist. 2009).

In the instant case, the record establishes “that there is no genuine issue of material fact” regarding Petitioners’ challenge to the NPDES permit issued to Dynegy by the Agency and the Agency record supports the Permit as issued. Petitioners have failed to meet their burden. Accordingly, summary judgment is an appropriate means of upholding the Agency’s decision to renew Dynegy’s NPDES Permit.

**B. Reasonable Potential to Exceed; Monitoring is Appropriate**

The first of Petitioners three arguments for remand of the Permit to the Agency is that, the Agency failed to perform an analysis to determine whether the proposed discharge has a reasonable potential to cause or contribute to an exceedance of Illinois’ water quality standards. (Pet. Memo, Pg. 15)<sup>2</sup>. The Agency in reviewing the whole permit record before it was fully cognizant of the prohibition against discharges that cause or contribute to a water quality standard exceedance. The Agency is also aware that as the Petitioners state that, First, for any discharge, new or existing, the CWA and the NPDES permitting provisions of the Illinois Act set forth a mandatory duty on IEPA to ensure that a permitted discharge does not contribute to a violation of water quality standards, stating, “In establishing the terms and conditions of each issued NPDES Permit, the Agency shall apply and ensure compliance with ... [a]ny more stringent limitation . . . necessary to meet water quality standards.” 35 Ill. Adm. Code §309.141(d)(1). Similarly, 35 Ill. Adm. Code §304.105 provides that “no effluent shall, alone or in combination with other sources, cause a violation of any applicable water quality standard.” (Pet. Memo, Pg. 15).

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<sup>2</sup> Reference to the Petitioners Memorandum of Law filed in this matter will be as follows: (Pet. Memo, Pg. \_\_\_\_).

There are two important parts missing from this statement of the Boards Regulations; one, the regulations provide that, "In establishing the terms and conditions of each issued NPDES Permit, the Agency shall apply and ensure compliance with all of the following, whenever applicable:" 35 Ill. Adm. Code §309.141 and two, a reasonable potential to exceed analysis contemplates the existence of data. 35 Ill. Adm. Code §309.141(h)(3). In the instant case no such data existed at the time of permitting. (R. 683). For this reason the Agency placed Special Condition 8 in Dynegey's renewed permit. (R. 706). In fact this condition was modified after publication of the draft permit. (R. 674). The modification requires quarterly sampling for mercury throughout the life of the permit as opposed to twelve sampling events. (R. 674, 706).

The Agency has consistently held the position that in order to conduct a potential to exceed analysis data is needed. In fact in a Responsiveness Summary for a prior NPDES permit application that Agency stated that:

The Agency did not perform a reasonable potential analysis. A reasonable potential analysis can only be performed when actual data from the discharge is collected. Special Condition 8 requires monthly monitoring for 1 year after the facility starts placing material in the landfill and quarterly thereafter. The Agency will use this data to conduct a reasonable potential analysis when the NPDES permit is renewed.

(See the Met-South, Inc. Responsive Summary, Response 20, dated June 18, 2010, attached hereto as Attachment 1). A check of the docket with the Clerk of the Board shows that no challenge to this permit was filed.

The Petitioners cite to the Administrative Record for the argument that the Agency acknowledges that there will be increase discharges to the Illinois River and a "potential to exceed" analysis should have been done. (Pet Memo, Pg. 17). Contrary to these arguments the Agency's Responsiveness Summary is quite clear that "All water quality standards will continue to be met in the Illinois River." (R. 678).

Further, Petitioners argument that the e-mail exchange contained in the Agency Administrative Record evidences awareness that there is a strong potential for mercury discharges is disingenuous. (Pet. Memo, Pg. 18, R. 692-693). The exchange references one known situation for a water quality standard exceedance, but it also makes the case for monitoring in the face of the lack of data. (R. 692).

In the absence of data it was reasonable for the Agency to impose a monitoring requirement upon Dynegey. Without the data it was not possible to do the "potential to exceed" analysis. For this reason the Petitioners; first argument for remand must fail. The Administrative Record supports the Agency's decision, Petitioners have failed to meet their burden that granting of this permit would result in a violation of the Act or the Board's regulations. As such denial of the Petitioners' summary judgment and the granting of the Agency's cross-motion for summary judgment is appropriate. The Agency's grant of Dynegey's NPDES permit should be upheld

**C. The Agency's Antidegradation Analysis Was Adequately Performed**

The second of Petitioners three arguments for remand of the Permit to the Agency is that, the Agency's antidegradation analysis was fatally flawed. (Pet. Memo, Pg. 20). The fatal flaw is in the Petitioners' argument. In order to conduct the antidegradation analysis required by 35 Ill. Adm. Code §302.105(f) there needs to be an increased loading of pollutants. Further, this assessment must be made on a case-by-case basis. 35 Ill. Adm. Code §302.105(c)(2). In conducting this case-by-case analysis the Agency is to look to the following information:

- C) Utilize the following information sources, when available:
  - i) Information, data or reports available to the Agency from its own sources;
  - ii) Information, data or reports supplied by the applicant;

- iii) Agency experience with factually similar permitting scenarios; and
- iv) Any other valid information available to the Agency.

35 Ill. Adm. Code §302.105(c)(2)(C). As this regulation points out there is a qualifier on the information, “when available”. As set out in the prior section of this memorandum there is a dearth of actual data, hence the monitoring requirement in the permit. Without this data it was appropriate and allowed under the regulations for the Agency to rely on information submitted by the permit applicant. 35 Ill. Adm. Code §302.105(c)(2)(C)(ii).

The Petitioners place great reliance on the Board's opinion in *Des Plaines River Watershed Alliance, et al. v. IEPA and the Village of New Lenox*, PCB 04-88, April 19, 2007. In the *New Lenox* matter, due to the nature of the potential pollution loading the Board concluded the Agency needed to conduct a robust antidegradation analysis. Such is not the case in this matter and thus *New Lenox* is not applicable. In fact during the rulemaking process the Board recognized that the antidegradation analysis could be implemented on a sliding scale. In its opinion and order the Board stated in part:

At first notice the Board recognized that all proposed increases in pollutant loadings should not require the same level of review to demonstrate compliance with the antidegradation standard. The Board indicated that implementation procedures for antidegradation reviews should allow the Agency to decide on a case-specific basis what level of review is appropriate. Furthermore, the Board indicated that antidegradation implementation procedures should not limit the Agency's ability to ensure compliance with the antidegradation standard's main objective of identifying and implementing alternatives that reduce or eliminate the increased loadings.

In the Matter of: Revisions to the Antidegradation Rules, PCB R01-13, at Pg. 3, February 21, 2002. That is exactly what took place here. The Agency found that, “Whatever low levels that are discharged from the ash pond represent a decrease loading to the environment. (R. 602).

The applicant as part of the permitting process submitted to the Agency information to be utilized for an antidegradation analysis. (R. 528-533). This analysis relies on a report prepared by the Electric Power Research Institute ("EPRI") entitled, "Activated Carbon: Effect on Simulated Fly Ash Sluice Water". This report is part of the Agency's Administrative Record. (R. 990-1019). The reason this is relevant is that due to modifications that the applicant was making to the Havana Facility to comply with a federal consent order, it would now be discharging a mercury sorbent material (activated carbon) to its east ash pond system. (R. 529). The total mass of mercury to be discharged to the east ash pond is estimated to be 0.0 to 0.6 pounds per day. (R. 529).

Now the question is, will the mercury loading to the east ash pond as lead to an increase loading of mercury to the Illinois River. The Agency's conclusion, based on the information available to it at the time of permit issuance was no. (R. 602). In fact the EPRI report, which it was appropriate for the Agency to rely on concluded that, "mercury captured from the flue gas by the carbon is generally stable and does not leach out during the simulated sluicing process". (R. 1007). The EPRI report further stated that, mercury is strongly retained by the coal combustion residue and unlikely to be leached at levels of environmental concern. (R. 1007).

In considering this information, the Agency determined that the mercury that was removed from the air emissions through the activated carbon, is mercury that otherwise would have been deposited in the Illinois River and other water bodies by air deposition. (R. 545). For this reason the Agency determined that there is an "anticipated benefit from this proposed activity" in that the removal of the mercury from the air emissions will remove an existing source of mercury from downwind water bodies and local and regional airsheds will benefit from the reduction in pollutants. (R. 545-546).

The Agency after review of all information available to it at the time of permitting concluded:

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technical and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated in the proposed activity; and that this activity will benefit the community at large by allowing the continued operation of the power plant and reduction of mercury and other pollutants in the atmosphere.

(R. 546). The Agency also stated that it would consider public comments prior to a final decision. This is exactly what the Agency did when it increased the level of monitoring required under the permit as a means of confirming its prior antidegradation conclusion.

For this reason the Petitioners' second argument for remand must also fail. The Administrative Record supports the Agency's decision, Petitioners have failed to meet their burden that granting of this permit would result in a violation of the Act or the Board's regulations. As such denial of the Petitioners' summary judgment and the granting of the Agency's cross-motion for summary judgment is appropriate. The Agency's grant of Dynegey's NPDES permit should be upheld.

**D. Agency Exercised Best Professional Judgment**

The third of Petitioners three arguments for remand of the Permit to the Agency is that, the Agency failed to comply with requirements to establish a technology bases effluent limit ("TBEL") base on best available technology ("BAT"). (Pet. Memo, Pg. 33). One matter from the outset that needs to be dealt with is any reference to the USEPA's Proposed Rule entitled, Effluent Limitations Guidelines and Standards for Steam Electric Power Generating Point

Source Category found at 78 Fed. Reg. 34431, et seq., June 7, 2013. This proposed rule was published approximately nine months after the Agency issued Dynegey its NPDES permit. Petitioners continually refer to the rule and its requirement of zero discharge for the scrubber and activated carbon waste streams at issue in this case and references to dry ash landfilling. This is an attempt to introduce matters that are not of record and did not exist at the time of permitting. Accordingly, all such references to this proposed rule should be disregarded.

Petitioners reference a case in their memorandum, Kentucky Waterways Alliance, et al v. Energy and Environment Cabinet, et al, No. 11-C1-1613 (Franklin County Circuit Court, September 10, 2013), as supportive of the position that the Agency was obligated to engage in a Best Professional Judgment (“BPJ”) analysis to establish TBEL for Dynegey’s discharge based on BAT. This opinion is not controlling, though it may be persuasive authority, however just as persuasive is a recent order of the State of Tennessee Board of Water Quality, Oil and Gas. (See the Final Order in Tennessee Clean Water Network, et al. v. Tennessee Department of Environment and Conservation, et al. Case No. WPC 10-0116, December 4, 2013, attached hereto as Attachment 2). Similar to this matter and the Kentucky Waterways alliance matter the Tennessee case involved a challenge to the grant of an NPDES permit. Similarly the Petitioners challenged the lack of exercise of BPJ to establish TBELs for the discharge. In response to this challenge the Board held:

Federal and State regulations give TDEC's permit writers discretion to determine whether and when to develop additional limits for pollutants that are not covered by ELGs applicable to an industry waste category. TDEC was afforded such discretion when it concluded that additional effluent limits were unnecessary, because the pollutants in Bull Run's wastewater were not being discharged at levels likely to cause toxic effects. Therefore, TDEC had complete discretion to choose whether or not to impose BP J limits in the Bull Run Permit.

Tennessee Clean Water Network, et al. v. Tennessee Department of Environment and Conservation, et al. Case No. WPC 10-0116, Pg. 6, December 4, 2013.

Contrary to Petitioners position that the Agency failed to use its BPJ to set BAT limits for these discharges, such technology based limits do exist in Illinois and such limits are contained in the Board's effluent limits found at 35 Ill. Adm. Code, Part 304. In fact the effluent limit for mercury is 0.5 µg/l. 35 Ill. Adm. Code §304.126(a). This limit is significantly higher than the water quality standard for mercury, which is set at 0.012 µg/l. 35 Ill. Adm. Code §302.208(f).

The Agency concluded, based on information in the Administrative Record that mercury is not anticipated to increase in concentration in the discharged effluent and due to the permits monitoring requirement the Agency will be alerted to concentration increases above the water quality standard. (R. 684). As pointed out above, the water quality standard is significantly lower than the effluent limit. Thus, the Agency's BPJ was to include a monitoring requirement in the permit to determine if the discharge violated the state wide technology based effluent limits as well as state wide water quality standards contained in the Board's regulations. In fact with the limited monitoring, prior to the revision of changing the monitoring to the life of the permit, USEPA stated that it would not object to the permit as drafted. (R. 634).

Additionally, Petitioners argue that the Agency, in its Responsiveness Summary failed to adequately respond to their comments on this issue. (Pet. Memo, Pg. 42). Regulations provide for the contents of the Responsiveness Summary as follows:

Section 166.192 Contents of Responsiveness Summary

- a) Responsiveness summary shall be prepared by the Agency. The responsiveness summary shall include:
  - 1) An identification of the public participation activity conducted;
  - 2) Description of the matter on which the public was consulted;
  - 3) An estimate of the number of persons present at the hearing;

- 4) A summary of all the views, significant comments, criticisms, and suggestions, whether written or oral, submitted at the hearing or during the time the hearing record was open;
- 5) The Agency's specific response to all significant comments, criticisms, and suggestions; and
- 6) A statement of Agency action, including when applicable the issuance or denial of the permit or closure plan.

35 Ill. Adm. Code §166.192(a).

It should be pointed out that this regulation was promulgated by the Agency pursuant to the implementing and authorizing provisions of Section 4 of the Act, 415 ILCS 5/4 (2012). The Petitioners do not cite to any authority that would allow the Board to review the Agency's implementation of its own rule. Additionally, the Responsiveness Summary is part of the Informational Hearing process, a hearing that by definition is not required by law. 35 Ill. Adm. Code §166.120(b).

However, that issue does not even have to be addressed as it is obvious that the Petitioners concern is that there is no numeric limitation in the Permit for Dynege's discharge. As set out above, the Agency did exercise BPJ and determined that monitoring the discharge was appropriate. Throughout the Responsiveness Summary the Agency explained why monitoring was appropriate and that water quality standards would be met at the end of the pipe. (See Responsiveness Summary responses No. 2, 7, 8, 9, 13, 14, 33 and 55; R. 677, 678, 679, 680, 684 and 688). Though these responses did not use specific words like BPJ, BAT and TBEL, it is very clear that the Agency was addressing the specific comments of the Petitioners regarding the discharge by Dynege. The responses explicitly explain that through monitoring the Agency will be able to determine if mercury concentrations increase above water quality standards. Thus the Agency did provide specific responses to the Petitioners' comments.

For this reason the Petitioners; third argument for remand must also fail. The

Administrative Record supports the Agency's decision, Petitioners have failed to meet their burden that granting of this permit would result in a violation of the Act or the Board's regulations. As such denial of the Petitioners' summary judgment and the granting of the Agency's cross-motion for summary judgment is appropriate. The Agency's grant of Dynegey's NPDES permit should be upheld.

**VI. CONCLUSION**

Illinois EPA asks the Board enter an order granting its Cross-Motion for Summary Judgment, denying Petitioners' Motion for Summary Judgment and in that there exist herein no genuine issues of material fact and that the Petitioners have failed to sustain their burden of proving that the NPDES permit, as issued, would violate the Act or Board regulations, Illinois EPA is entitled to judgment as a matter of law and the NPDES permit should be upheld.

Respectfully submitted.

ILLINOIS ENVIRONMENTAL PROTECTION  
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**ATTACHMENT 1**

**Met-South, Inc.  
Village of Joppa, Massac County, Illinois**

**National Pollutant Discharge Elimination System (NPDES) Permit  
Responsiveness Summary**

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**Final June 18, 2010**

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

Met-South, Inc  
Village of Joppa, Massac County, Illinois  
New NPDES Permit  
Permit Number IL0078751

**AGENCY PERMIT DECISION**

On June 18, 2010, the Illinois Environmental Protection Agency (Illinois EPA or IEPA or Agency) issued the new NPDES permit for Met-South, Inc.

The following changes were made to the draft permit.

- Special Condition 8 was revised – Sampling frequency was changed to require monthly monitoring for 1 year after the facility starts placing material in the landfill and quarterly thereafter.
- Special Condition 9 was added – Prior to scrubber sludge being placed in the landfill the permittee must notify the Agency.

## PRE-HEARING PUBLIC OUTREACH

The entire public hearing notice was published on October 21, 28 and November 4, 2009, in the *Metropolis Planet*. Beginning October 22, 2009, the public hearing notice was mailed or emailed to persons on a hearing service list maintained by the Illinois EPA. The notice was sent to local state legislators, Massac County officers, Village of Joppa officials, the Kentucky Department for Environmental Protection and the Ohio River Valley Water Sanitation Commission (ORSANCO). The public hearing notice was posted in the Illinois EPA Marion regional office and on the Illinois EPA website, <http://www.epa.state.il.us/public-notices/2009/met-south-coal/index.pdf>. Prairie Rivers Network (PRN) and the Illinois Chapter of the Sierra Club issued a press release, distributed flyers near the facility and PRN posted the flyer on their website. The hearing was also announced in the *Metropolis Planet* on December 2 and in the *Southern Illinoisan* on December 3.

## December 7, 2009, PUBLIC HEARING

Illinois EPA Hearing Officer Dean Studer opened the hearing at 6 p.m. in the Joppa Community Center in Massac County, Illinois.

Illinois EPA Permit Engineer Leslie Lowry explained the draft NPDES permit.

Bill Sheppard, President of Electric Energy, Inc., made an opening statement.

Comments and questions were received from the audience.

Hearing Officer Dean Studer closed the hearing at 8:15 p.m. on December 7, 2009.

Illinois EPA personnel were available before and after the hearing to meet with elected officials, news media and concerned citizens.

Forty-five persons representing local residents, Village of Joppa, City of Metropolis, Massac County, Shawnee Community College, Joppa-Maple Grove School District, Sierra Club, Prairie Rivers Network and Electric Energy Inc., participated at and/or attended the hearing. Two local TV stations, Channel 3 WSIL Carterville and Channel 6 WPSD Paducah Kentucky, filmed at the hearing.

WPSD TV aired a feature on December 7 and also posted a report on their website. WSIL TV aired a report on December 8. WKMS radio in Kentucky interviewed Hearing Officer Dean Studer on December 14. The *Metropolis Planet* published an article on December 16, 2009. A court reporter prepared a transcript of the public hearing which was posted on the Illinois EPA website on December 23, 2009.

The hearing record closed on January 6, 2010.

## BACKGROUND INFORMATION

The IEPA Bureau of Water prepared a draft National Pollutant Discharge Elimination System (NPDES) permit for Met-South, Inc. The address of the applicant is: P.O. Box 181, Joppa, Illinois and the facility address is 2100 Portland Road, Joppa, Massac County, Illinois 62060.

The facility applied for an NPDES permit for a discharge from a proposed Coal Combustion Waste (CCW) Management Facility to be located northwest of the Electric Energy, Inc. (EEI) Joppa Generating Station. The CCW Management Facility is owned by EEI and operated by Met-South, Inc., a subsidiary of EEI. The CCW Management Facility will include a landfill cell encompassing about 23 acres that will accept CCW solely from the Joppa Generating Station. The CCW includes fly ash, bottom ash and scrubber by-product material generated by a flue gas desulfurization system.

Stormwater will flow into a permitted lined retention basin for sediment control prior to discharging to an unnamed tributary leading to the Ohio River. The proposed landfill will have an exit for trucks and equipment that is equipped with a truck/equipment wash. Trucks and equipment will be washed down as necessary to prevent tracking of CCW materials onto the public roadway. No soap or detergents will be used in the wash area. Excess wash water and generated solids will be returned to the waste disposal area.

The facility proposes to discharge to an unnamed tributary of the Ohio River. The unnamed tributary and the Ohio River are classified as General Use Waters. The unnamed tributary and the Ohio River are not listed as biologically significant streams in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are they given an integrity rating in that document. The unnamed tributary of the Ohio River, tributary to Waterbody Segment, A 920-981, is not listed on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006 or the partially approved 2008 List. However, the Ohio River itself, Waterbody Segment, A 920-981, is listed on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006 as impaired for fish consumption use with causes given as dioxin, mercury and polychlorinated biphenyls. The partially approved 2008 Illinois Integrated Water Quality Report and Section 303(d) List is identical except that public and food processing use has been added with the cause given as phenols. The IDNR WIRT system indicates that threatened or endangered species [Crayfish (*Orconectes Sp.2*), Ebony Shell (*Fusconaia ebena*), Spectaclecase (*Cumberlandia monodonta*) and Black Sandshell (*Ligumia recta*)] of aquatic life may be present.

The IEPA has made a determination to issue this five-year NPDES permit for discharge into waters of the state in accordance with 35 Illinois Administrative Code Subtitle C (*Water Pollution*), the Illinois Environmental Protection Act and the federal Clean Water Act.

Comments, questions and concerns in regular print  
Agency responses in bold

## **Responses to Comments, Questions, and Concerns**

### **NPDES Related Issues**

#### **NPDES Permit**

1. There is concern about selenium leaching out of this ash. There have been studies on birth defects in fish, ducks and geese. What can you tell us about any selenium that might be in these discharges? (T-52)

**Based on the information that was provided with the permit application and data from EEI's existing ash ponds, the Agency determined that there is no need to regulate selenium at this time. The Agency included monthly monitoring in Special Condition 8 for one year and quarterly thereafter for selenium. This initial round of monthly sampling will give the Agency additional data points, not only for selenium but the other metals as well. This data will be used to verify the initial findings that Met-South had on their discharge. If there's a reasonable potential to exceed the water quality standards based on the additional sampling results, the permit will be modified accordingly, to add additional limitations.**

2. The Illinois limits for the amount of selenium is one milligram per liter and the USEPA standard is five micrograms per liter. Why is the Illinois limit 200 times greater than what is allowed by the federal standards? The federal standard is to protect wildlife. (T-54)

**The Illinois EPA has not adopted the Federal National Criteria document for selenium. USEPA is currently in the process of changing this criteria.**

3. Has the Army Corps of Engineers been consulted about this permit? (T-79)

**The Corps of Engineers was contacted during the 15-day notice period. They were sent a copy of the public notice fact sheet and draft permit and were given the opportunity to comment on the draft permit at that time. The Agency did not receive any comments from the Corps of Engineers.**

4. USEPA published a 2006 report on CCW where they note that increased toxicity of waste is generated by coal-fired power plants using activated carbon injection. EEI began using activated carbon on July 1, 2009. When the modified shake test was done on the waste, was it done on the waste before activated carbon injection was started or after? If the test was done prior to activated carbon injection, that test should be redone to adequately analyze the CCW. (T-94) (E-3)

The shake test was performed using bottom ash, fly ash, and fly ash with carbon. The fly ash with carbon sample came from a full scale carbon injection test that was performed in 2007 and this data was submitted to the Agency in 2008. The facility started continuous carbon injection on July 1, 2009.

5. USEPA states that the short-term leaching test that was used to characterize this waste will not reliably indicate leaching potential of power plant waste. Were additional leach tests conducted? (T-92)

This short-term leaching test is a test that places a sample of the ash with 20 times its weight in distilled water and then agitated for 18 hours. The short-term leaching test was used to determine what the characteristics of the runoff would be. Note, the antidegradation assessment did not use this leaching test to characterize the leachate. Stormwater will encounter ash in the landfill that has not yet been covered with soil. Since runoff will only be in contact with the ash for a short period of time, the Agency believes that this test was appropriate. The average contact time for runoff from a 2-year, 24-hour precipitation event is 6.3 minutes.

The facility recently conducted an additional shake testing utilizing ASTM D3988-85 on fly ash with carbon samples representative of what would be seen in the landfill. The fly ash with carbon that was used for the sample was generated in December 2009. The leachate from these samples was very similar to the results submitted to the Agency in 2008. Mercury analysis on the recent samples were below the detection limit of 0.0002 ppm and lower than the value used in the discharge analysis provided in January 2009.

The sample test that was originally conducted was in accordance with ASTM D3987-83. This test is approvable pursuant to Illinois Environmental Protection Act 415 ILCS 5/3.135(a)(9)(b), which specifies that ASTM D3987-83 be used to determine if leachate from ash meets the applicable groundwater standards.

6. What is a shake test? (T-85)

**A shake test is a laboratory procedure described in ASTM D3987-87 for determining material that leach from solid waste. It is performed by adding slightly acidic water to the sample and shaking for 18 hours. The water phase is filtered and analyzed for various constituents.**

7. Why were permit limits not established for arsenic, cadmium, chromium, copper, dissolved iron, manganese, nickel, radium-226, strontium-90, selenium, sulfate, total dissolved solids and zinc, in line with Code of Federal Regulations B, Section 302? At a minimum, why aren't all these pollutants listed in the quarterly monitoring requirement under Special Condition 8? (T-94) (E-3)

**Arsenic, cadmium, chromium, copper, iron (dissolved), manganese, nickel, selenium, and zinc are included in Special Condition 8. Radium, strontium, sulfate, and TDS were not included in this condition. There is no water quality standard for TDS so monitoring for TDS is not necessary. Limits were not included for radium, strontium, and sulfate based on the information that was provided with the permit application and what the Agency has seen at EEI's existing ash ponds. The Agency determined that there is no need to regulate these parameters at this time. If there's a reasonable potential to exceed the water quality standards based on the additional sampling results, IEPA will modify the permit accordingly and add additional limitations.**

**Coal is largely composed of organic matter, but some trace elements in coal are naturally radioactive. These radioactive elements include uranium, thorium, and their numerous decay products, including radium and radon. During the coal combustion process most radionuclides end up in the ash where their initial concentration is increased by a factor of 10, equivalent to coal to ash ratio in the coal. In evaluating any potential hazard, the issue of concern is not the total quantity of radionuclides; rather, it is the respective concentration. Containing this material in a disposal cell will adequately isolate it from the environment and be protective of human health. Additionally, IEMA has jurisdiction for radium-226 and strontium-90.**

8. The applicant and IEPA have developed the proposed plan and draft permit in advance of the forthcoming USEPA rule on CCW disposal in surface impoundments and landfills, which will specifically address the activities proposed in this permit and whether the waste should be reclassified as hazardous. The Agency should defer judgment on this permit until after those regulations are published so that the permit is in accordance with the new regulations. Therefore, the Agency should deny this draft NPDES permit. (T-103) (E-6)

**The Agency has reviewed the application and drafted a permit that is protective of water quality based on the existing regulations. The IEPA is not in a position to know what regulations USEPA may or may not propose at a**

future date. It is also not possible to know what these regulations may or may not contain. As the applicant has shown that the proposed activity will not cause a violation of the Act or Pollution Control Board (PCB) regulations, consistent with Section 39(a) of the Illinois Environmental Protection Act mandate, the Agency must issue the permit.

9. What about the material that's being carried back and forth from the trucks that falls off from the tires and mud flaps? (T-40)

The site will be equipped with truck/equipment wash facility, which is designed to clean the vehicles and equipment to avoid any material being tracked on to the roadway. Washwater from the facility will discharge to the retention basin to settle out the solids prior to discharging via outfall 001.

### **Antidegradation Statement**

10. The National Wetlands Inventory indicates that there are wetlands on this site. In your analysis, will wetlands be impacted? (T-79)

**The antidegradation assessment for this NPDES permit does not address any impacts other than impacts caused by the NPDES permitted activity. If there are impacts to a wetland, a Section 404 Corps permit may be required. If such 404 permit is sought by the applicant, the Agency may consider the impacts to wetlands under the 401 certification process.**

11. IDNR has looked at potential impact on three endangered threatened mussels and the state threatened crayfish, terminated the consultation process on October 14, 2008 and determined and concluded that adverse effects are unlikely. We believe that the assessment may be flawed and should be redone for the following reasons: 1) No specific surveys or studies were conducted in the stream segments of interest to identify potential protected resources and 2) IEPA's information regarding the volume and quality of the discharges to the tributary of the Ohio River and ultimately the Ohio River may have been insufficient to make a determination of potential impacts to the protected resources. A complete characterization of the proposed pollutant load was not completed. Under Illinois antidegradation regulations, existing uses of the affected water body must be established. Without a mussel and crayfish survey on the receiving stream, the applicant has not met its burden under Illinois' antidegradation regulations. We are requesting that a mussel and crayfish survey be completed on the unnamed tributary and the segment receiving this waste on the Ohio River. Those are existing uses that must be protected as per the antidegradation regulations. (T- 78, 94) (E-3, 6)

**The Agency does not believe that IDNR needs to redo their analysis which resulted in the termination of the consultation process on October 14, 2008. IDNR did not ask for any surveys of the unnamed tributary of the Ohio River or the Ohio River itself. The Agency believes that the wastewater was properly characterized. As per question 20, the leachate that is used for fugitive dust control will only be used on the landfill. Any extra water that is used for fugitive dust control will be collected as leachate. The use of the leachate for dust control on the fly ash in the landfill will not increase the pollutant loading to the stream over what is currently proposed.**

12. Under antidegradation, there is a section that requires an analysis of alternatives to minimize pollutant loading to waters of the US and waters of the state. One of the alternatives that was looked at was pumping some of this stormwater and equipment wash water back to Joppa, but that was rejected because it would have taken a prohibitively large pipe, the cost and the mile and a half distance. But I understand the leachate that will be collected from this landfill will be pumped back to the site. So I guess I would like to know on what was the basis of why that

alternative was rejected since it is being used. That pipe was already being laid for transferring that wastewater. (T-97)

**The volume of stormwater runoff will be much greater than the volume of leachate. The leachate will be stored on-site until such time that it is trucked back to EEI's ash pond. There are no plans to install piping from the landfill to EEI's ash pond.**

13. Did the applicant submit the estimated discharge volume and associated cost estimates for Outfall 001? How far did they take that analysis? If that information and the cost benefit analysis were conducted, would that be part of this NPDES file? (T-98)

**The applicant estimated that the peak discharge from the retention basin would be 50.2 cfs. The applicant provided a cost estimate for the alternative of pumping the effluent to the EEI ash pond and a cost estimate of the alternative gravity drain to the Ohio River via e-mail on February 26, 2010. The cost of the gravity drain to the Ohio River was approximately \$6.1 million and the cost of pumping the effluent to the EEI ash pond was approximately \$32.6 million.**

**The applicant provided additional information to satisfy 35 Ill. Adm. Code 302.105(c)(1) in its April 12, 2010 letter. The applicant noted that there is an environmental benefit of the new flue gas mercury removal system, which captures and removes mercury from the flue gas. The applicant also notes that EEI has over 250 employees and provides direct and indirect monetary and other benefits into the local economy.**

14. Issuance of this permit does not address cumulative impacts of previous stream conditions and the proposed discharge in waters listed as "impaired." This permit will allow the expansion of discharges to waterways identified as "impaired" in Illinois EPA's 2008 Illinois 303(d) list of impaired waters. As written in the permit's antidegradation assessment: "The subject facility proposed to discharge to an unnamed tributary of the Ohio River at a point where 0cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions....The Ohio River itself, Waterbody Segment, A920-981, is listed on the Illinois integrated Water Quality Report and Section 303(d) List-2006 as impaired for fish consumption use with causes given as dioxin, mercury and PCBs." The proposed discharge through Outfall 001 will contain a certain level of mercury. Requiring the discharged mercury concentration to be met only as an annual average is unacceptable, especially considering the bioaccumulative nature of mercury and its potential to for both acute and chronic toxicity. Per 35 Ill. Adm. Code 302.208(a) and (b), acute and chronic standards must be met in the receiving stream. Considering that the discharge will empty at a point in the receiving stream where 0 cfs of flow exists upstream of the outfall, the permit must include limits for daily maximum and 30-day monthly average that will ensure that these acute and chronic water quality

standards for mercury will not be exceeded in the receiving stream. (E-3)

**The Agency is regulating mercury at the most stringent water quality standard applicable. Mercury will be regulated at 0.012 ug/L. The acute water quality standard of 2.2 ug/L and the chronic water quality standard of 1.1 ug/L are approximately 100 times less stringent than the human health water quality standard of 0.012 ug/L located at 35 Ill. Adm. Code 302.208(f).**

15. Illinois Antidegradation Rule, 35 Ill. Adm. Code 302.105 has not been satisfactory addressed in the identification of proposed pollutant load increases. Among the hazardous constituents contained in power plant waste are 17 toxic chemicals including arsenic, mercury, cadmium, chromium, selenium, aluminum, antimony, barium, beryllium, boron, copper, lead, manganese, molybdenum, nickel, vanadium and zinc. These contaminants have been shown to cause birth defects, cancer and neurological damage in humans, and similar damage to wildlife. 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. (E-3)

**Barium, chromium (hexavalent), boron, and mercury have been given permit limits set at the water quality standards. The NPDES permit also contains a monitoring condition for arsenic, cadmium, chromium, copper, lead, manganese, nickel, selenium, and zinc. The Agency believes that this is an adequate number of parameters to determine if water quality standards will be met or if there is a need for additional monitoring or permit limits.**

**The permit does not require monitoring for aluminum, antimony, beryllium, molybdenum, and vanadium. Limits were not included for the parameters based on the information that was provided with the permit application. At this time, the Agency does not have effluent standards, water quality standards, or derived criteria, with the exception of antimony, for these parameters. Antimony was not regulated, since the data indicate that it is not present in a measurable amount.**

**Special Condition 8 in the draft permit requires quarterly monitoring for 2 years, which only gives the Agency 8 samples. Special Condition 8 has been revised to require monthly monitoring for 1 year after the facility starts placing material in the landfill and quarterly thereafter. The permit also includes a re-opener clause. When new data becomes available, the Agency can re-open the permit if new data shows that a limit or monitoring is necessary, and modify it accordingly.**

16. Illinois' Antidegradation Rule requires the IEPA to assess the net economic benefit in the area to be gained from activities for which it issues NPDES permits. 35 Ill. Adm. Code 302.105(c)(1). Thus, in addition to its obligation to protect the waters of the state from unnecessary pollution, IEPA must consider any potential environmental harm that may occur from the disposal of coal combustion waste that might lessen the net benefits to be obtained from the project. These negative economic effects must be weighed against any social or economic development benefits anticipated from the proposed activities which require the NPDES permits. The antidegradation analysis that has been created by IEPA is deficient, among other reasons, for its failure to weigh the net economic damage to the area that may be caused by contamination of groundwater and other resources. A proper analysis of the net economic benefits of the project may find them to be negative or unimportant. (E-3)

**The applicant provided additional information to satisfy 35 Ill. Adm. Code 302.105(c)(1) in its April 12, 2010 letter. The applicant noted that there is an environmental benefit of the new flue gas mercury removal system, which captures and removes mercury from the flue gas. The applicant also notes that EEI has over 250 employees and provides direct and indirect monetary and other benefits into the local economy.**

17. How can the CCB material be described as "non-hazardous" in the second paragraph of the antidegradation assessment when the first paragraph states that the mercury-laden spent activated carbon collected with the fly ash will make "the fly ash unsuitable for many beneficial uses?" (E-3)

**The antidegradation assessment noted that the waste was "non-hazardous" in terms that the Federal regulations for hazardous waste does not include fly ash, bottom ash and scrubber by-product material generated by a flue gas desulfurization system. Specifically, the antidegradation assessment states: "EEI has no guarantee that beneficial use markets will continue to be available, especially with the addition of activated carbon (this makes the fly ash unsuitable for use in the cement manufacturing process)." This statement was intended to indicate that the activated carbon made the fly ash unusable in the cement manufacturing process.**

18. 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). Although it is the Agency's position that only stormwater runoff from the coal combustion landfill and truck and equipment washing water is within the scope of the Agency's NPDES permit review, additional contaminants from the landfill will ultimately enter the receiving stream. For instance, runoff from areas treated with leachate for fugitive dust control will contribute additional pollutant loadings to the receiving stream. Additionally, only the fly ash and bottom ash to be disposed of in the landfill were considered, omitting pollutants from the scrubber sludge also to be disposed of in

the landfill cell(s). Both of these additional wastestreams will contain mercury and other metals that have not been identified or quantified in accordance with antidegradation rules. Identification and quantification of these additional loadings must be completed as part of the agency's antidegradation assessment. Most importantly, the agency must also analyze the potential impacts of these pollutant loadings on the affected waters, including the fate and effect of each pollutant, to ensure full compliance with water quality standards and protection of existing uses. Failure to do so is a direct violation of the regulations and grounds for appeal. (E-6)

**The NPDES Permit authorizes the discharge of stormwater runoff collected from the landfill and truck/equipment washwater via Outfall 001.**

The leachate applied to the landfill will only be the amount necessary for fugitive dust control. Any excess water that is used for fugitive dust control will be collected in the leachate collection system. The leachate that is applied to the landfill is not part of this NPDES Permit, therefore is not subject to this NPDES permit requirements.

Scrubber sludge was not quantified since the facility has not made the decision as to what type of scrubber will be used (wet, dry, or another technology). Since the scrubber sludge cannot be quantified at this time, the Agency is adding a special condition to the NPDES permit that no scrubber sludge can be added to the landfill until such time that the sludge is quantified and the Agency approves of placement in the landfill.

## Water Quality

19. What effect will the water runoff from this landfill have on the river and its inhabitants such as fish? (T-20)

**This discharge will not adversely impact the Ohio River or the aquatic life in the Ohio River. The permit as issued ensures compliance with state water quality standards at the discharge point. The water quality standards were developed to be protective of designated water body uses and of aquatic life.**

20. When you were looking at the reasonable potential to exceed water quality standards in drafting this permit and determining what permit limits to set, were you supplied with an estimate of the volume of leachate that would be applied on site that might be contributing pollutants to the collection system? (T-69)

**The volume of leachate applied to the landfill will only be the amount necessary for dust control. Any excess water that is used for fugitive dust control will be collected in the leachate collection system. The volume of leachate that is applied to the landfill is not part of this NPDES Permit, therefore is not subject to the NPDES permitting requirements.**

**The Agency did not perform a reasonable potential analysis. A reasonable potential analysis can only be performed when actual data from the discharge is collected. Special Condition 8 requires monthly monitoring for 1 year after the facility starts placing material in the landfill and quarterly thereafter. The Agency will use this data to conduct a reasonable potential analysis when the NPDES permit is renewed.**

21. If selenium were to be found in the retention pond, does the agency have anything in place to protect birds that might use the pond? (T-75)

**The retention basin at the site, like any treatment lagoon is not considered waters of the state. Therefore water quality standards do not apply to water in the retention basin. Any discharge from the basin would be required to meet water quality standards. Special Condition 8 requires the effluent be monitored for selenium. The permit also includes a re-opener clause. When new data becomes available, the Agency can re-open the permit if new data shows that a limit or monitoring is necessary, and modify it accordingly.**

22. Special Condition 8 is a monitoring requirement. The Agency has stated that you don't expect there to be any exceedences of the water quality standards; therefore, there's no limits in the permit. On what were those assumptions based on? (T-83)

**A decision on what limits to include in the permit was based on the data that was provided in their permit application as well as what is expected from ash-pond-type discharges. The Agency has data on the EEI ash pond. The**

characteristics of that discharge are known and this is the same ash that will be disposed of in the proposed landfill. This information along with the data they provided for their shake tests combined with our best professional judgment in determining what limits are necessary initially. If further sampling indicates a reasonable potential to exceed a water quality standards exists, the Agency will modify the permit accordingly.

23. At the public hearing, Mr. Scott Twait of the IEPA's BOW Water Quality Standards Unit confirmed (p.84, hearing transcript) that a reasonable potential analysis was not completed. Apparently the agency has performed a modified shake test in lieu of performing a reasonable potential analysis. Although the modified shake test was conducted in order to approximate the constituents in the landfill leachate, the test was not performed adequately and cannot substitute for a reasonable potential analysis. (T-84) (E-6)

The Agency reviewed the analysis from the modified shake test. Until actual data from the discharge is obtained, the Agency cannot perform a reasonable potential analysis. Reasonable potential analyses are conducted on data from existing effluents where the number of samples measured and the results of those samples are evaluated using a statistical process. A prediction of attainment of water quality standards is the end result of the reasonable potential analysis. In the case of the new Outfall 001, no effluent has yet been discharged and no effluent chemical analysis may be conducted, therefore, no reasonable potential analysis is possible. The decision to regulate chemical and physical parameters for a proposed effluent is based on knowledge of the future effluent's constituents based on information on the process involved. This may include knowledge based on effluent data from similar processes at other facilities. Boron is a key indicator because boron is abundant in coal ash and is soluble in water. As these constituents are found at very low levels, confirming expectations that the minimal stormwater contact time would not result in higher concentrations, other ash constituents will behave accordingly. Therefore, the other constituents of coal ash, including metals, will also not be present in this effluent at levels of concern. As a precaution, a boron limit set at the current water quality standard of 1 mg/L has been included. Monthly monitoring and reporting are required. If the boron concentration is higher than expected, and therefore other substances are potentially higher than expected, this condition will be immediately known. Permit exceedances for boron will trigger investigation of the effluent as a whole. Further, three other substances will be monitored, mercury, barium, and chromium (hexavalent). This is another avenue by which any unexpected unique characteristics of the Met-South ash landfill stormwater discharge will be evaluated and regulated.

24. The applicant does a leach test and provides data that supports the premise that there is not reasonable potential and you base your draft permit on their report? (T-85)

The information that the facility provided is not a full reasonable potential analysis. At this time the Agency does not have actual data on the discharge to perform a reasonable potential analysis. For new permits the Agency is basing its decision on engineering estimates, engineering analysis, data from other sites, and best professional judgment on any new discharge because there's no facility related data. Once the facility is operational, the Agency can gather additional data to determine if effluent characteristics were overestimated or underestimated. This new data can be used to do the full reasonable potential analysis. The permit also includes a re-opener clause. When new data becomes available, the Agency can re-open the permit if new data shows that a limit or monitoring is necessary, and modify it accordingly.

25. According to the antidegradation assessment, "Several samples of fly ash and bottom ash from the Joppa Generating Station have been analyzed..." As such, the shake test did not include scrubber sludge from the EEI Joppa Generating Station that will also be disposed of in the landfill and will contribute pollutants to the leachate and eventually the permitted discharge. Furthermore, the shake test was done prior to the use of injected activated carbon in the plant's scrubbers, underestimating the concentrations of pollutants in the coal combustion waste. Without consideration of the complete pollutant loading, IEPA cannot reasonably assure that aquatic life will be protected in the receiving stream. (E-6)

**See response to comments 4, 5, and 56.**

26. Special Condition 8 requires quarterly reports for two years. We are requesting that Special Condition 8 be amended to require monthly reports so that the Agency will get the data quicker and be able to do a reasonable potential analysis. (T-86)

**Special Condition 8 in the draft NPDES permit required quarterly monitoring for 2 years, which only gives the Agency 8 samples. However, Special Condition 8 has been revised to require monthly monitoring for 1 year after the facility starts placing material in the landfill and quarterly thereafter.**

27. The mercury concentration limit is set at the human health standard and it's allowed to be met at the human health standard on average over an entire year. I would like to know how setting that as an annual average will allow that water quality standards will be met in the receiving stream, and specifically how the agency can justify an annual average when the Ohio River itself is listed as being impaired due to mercury? (T-90) (E-3)

**The mercury standard located at Section 302.208(f) of the Board regulations, 0.012 ug/L is required to be applied as an annual average as per Section 302.208(c).**

28. At what intervals is mercury monitoring required? (T-92)

**Mercury will be monitored on a monthly basis.**

29. Because the existing uses and present water quality of the receiving streams have not been studied adequately, the discharges allowed by the permit may cause or contribute to a violation of state water quality standards in violation of 40 CFR §§122.4, 122.44(d) and 35 Ill. Adm. Code 302.105(c)(2)(B)(i),(ii), 304.105, 309.141(d) and 309.142. (E-3) (E-6)

**The Agency has reviewed the application and drafted a permit that is protective of water quality based on the regulations as they currently exist. As the applicant has shown that the proposed activity will not cause a violation of the Act or PCB regulations, consistent with Section 39(a) mandate, the Agency is issuing the permit. Additionally, the antidegradation assessment concluded that all water quality standards would be attained and that all existing uses will be fully protected.**

## Ohio River

30. Will the one million gallons per day discharge be monitored before the water gets mixed in with the Ohio River? (T-41)

**The discharge will be monitored prior to discharging into the unnamed tributary. The facility is required to monitor at the outfall location prior to the discharge leaving their property and prior to the discharge mixing in the unnamed tributary.**

31. At present, there are discharges from TBA across the river, EEI, Honeywell, and Cook Coal Terminal into the Ohio River. How will these new discharges from Met-South affect the Ohio River? (T-41)

**The permit is written to ensure compliance with Illinois water quality standards and effluent limitations at the point of discharge. Since the effluent discharges to an unnamed tributary, no mixing is allowed.**

32. Have you considered downstream water supply users such as in Cairo and Mounds City? What are closest public water supply intakes on the Kentucky side of the Ohio River? (T-51) (T-61) (E-3)

**The closest public water supply intake is approximately 24.5 miles downstream at Illinois American Water Company in Cairo. Kentucky Natural Resources & Environmental Protection Cabinet was notified during the 30-day public notice and was sent a copy of the public notice factsheet and draft permit. They were given the opportunity to comment on the draft permit at that time and voice any concerns they might have with the discharge affecting any public water supply intakes. The Agency did not receive any comments from Kentucky. The water quality standards will be met at the discharge point.**

33. Was the State of Kentucky notified of these discharges to the Ohio River? (T-88)

**See response to comment 32.**

### **Unnamed Tributary**

34. Describe the unnamed tributary that will receive this discharge. (T-21)

**The stream flows from the proposed landfill site and travels about a mile to the Ohio River. The unnamed tributary is a small receiving stream with a watershed of two and a half square miles. The receiving stream is a headwater stream with a 7Q1.1 flow of zero. This headwater stream has characteristics that would support little or no aquatic life community, and therefore has been characterized sufficiently for the purpose of 35 Ill. Adm. Code 302.105(f)(1)(A). This stream has a small watershed and will fit the concept of 7Q1.1 zero flow streams. These are streams that will have at least seven days of continuous zero flow nine out of ten years. In southern Illinois, these streams have a watershed of five square miles or less. The Illinois State Water Survey may define 7Q1.1 zero flow streams more specifically in the future. Streams meeting this definition will not have developed aquatic life communities due to the lack of flow, and in most cases, complete drying of the stream bed, severely limits the establishment of aquatic organisms.**

35. The water discharges to the unnamed tributary will soak into the ground. Will the groundwater be contaminated? Will this discharge contaminate my well water? Is there any way for this discharge water to contaminate the groundwater? (T-21, 23, 25)

**The discharge from the retention basin is an overflow structure which will most likely discharge during or after storm events. Little, if any, water will have an opportunity to percolate into the ground during one of these events due to the ground being saturated.**

**The landfill will be required to meet the groundwater requirements found in 35 Ill. Adm. Code 811 Subpart C.**

36. The information provided states that there could be a daily discharge of a million gallons of water. Will this discharge cause erosion problems in the unnamed tributary? (T-38)

**The water collected in the retention basin will consist of stormwater runoff collected from the landfill and truck/equipment washwater. The retention basin will equalize stormwater flows, and reduce any solids in the runoff, but it will not result in any higher volume of water being discharged from the site than what would naturally occur without the presence of the landfill.**

37. Will this discharge of water cause flooding at the bridge during periods of heavy precipitation? (T-39)

**The Agency does not regulate flooding issues, however, any additional runoff that may be caused due to the presence of the project should be mitigated by the retention basin.**

## Leachate

38. Leachate used on site for dust control and will contribute to the stormwater discharge covered by this permit. What analysis was done to determine that that was an acceptable use for that leachate and that water quality standards in the unnamed tributary and the Ohio River would be met and existing uses would be protected? Under antidegradation regulations, you have to identify and characterize the proposed pollutant loadings that will be discharging at Outfall 001 to the unnamed tributary. If you haven't looked at the volume of leachate to be applied on site and what pollutants are in there, then IEPA has not done their duty according to the antidegradation regulations under 302.105. (T-73) (E-3)

**The volume of leachate applied to the landfill will only be the amount necessary for fugitive dust control. Any excess water that is used for fugitive dust control will be collected in the leachate collection system. The use of the leachate for dust control on the fly ash in the landfill will not increase the pollutant loading to the stream over what is currently proposed. The volume of leachate applied is not part of this NPDES Permit and therefore not subject to NPDES permitting requirements or antidegradation regulations.**

39. How do the IEPA permits handle water that falls on the landfill and water that soaks into the landfill? (T-66)

**When precipitation falls on the landfill, some of the water soaks into the landfill and some runs off the landfill. The water that soaks into the landfill is leachate. This leachate will be collected and conveyed back to an ash pond on EEI property and discharged from the EEI ash pond under a separate NPDES permit. The water that quickly runs off of the landfill is stormwater runoff that will be collected in the retention basin. The discharge from this retention basin will be via outfall 001.**

40. Is the stormwater runoff that flows down the side of the landfill ever in contact with the coal combustion waste material? (T-67)

**Yes, assuming that this question is referring to the stormwater that flows across the landfill and into the retention basin.**

41. Why is the Agency permitting the applicant to use pollutant-laden leachate from the proposed landfill for dust control rather than water from the detention pond used for sediment control? (E-3)

**This permit does not restrict the use of leachate for dust control. See response to comment 38.**

## Other Issues

### Beneficial Reuse Site

42. Concern was expressed about an active ash disposal site located about a mile north of Lafarge. They have bought a 160-acre farm on which they are digging huge pits to bury fly ash. (T-29)

**There is a land beneficial use project that is being done by a third-party. The company is mixing CCB material with water, compacting it and using it to fill low-lying areas of topography. The material will then be covered with approximately 3 feet of soil. Some uses of ash as a coal combustion byproduct in an engineering application are allowed by Illinois Environmental Protection Act 415 ILCS 5/3.135 without Agency approval or permits. The Agency Bureau of Land Field Operations Section will be monitoring this site for compliance with applicable laws and regulations.**

43. At the reuse site, ash is just dumped on bare ground; it should be water monitored just as it will be at the Met-South site. (T-33)

**See response to comment 42.**

44. Will IEPA test this ash or do they rely on independent people to test it? (T-34)

**The beneficial reuse program as well as the NPDES program is a self monitoring program by practice. The Agency only requires that approved test methods be used, and that any beneficial reuse be in accordance with Illinois Environmental Protection Act 415 ILCS 5/3.135.**

45. How do we obtain information about the beneficial reuse site? Who do we need to contact? (T-46)

**Illinois Environmental Protection Act 415 ILCS 5/3.135 allows ash as a coal combustion byproduct in engineering applications. You may contact the IEPA Bureau of Land, Disposal Alternatives Unit for further information regarding any beneficial reuse project at telephone number (217) 524-3300.**

46. Coal combustion waste reused under Sec 3.315 is classified as coal combustion byproducts (CCB) and is exempt from the solid waste regulations applied to CCW. Besides the obvious benefit to the applicant of skirting additional regulations, can you please explain how burying power plant waste in a landfill can be considered a beneficial reuse? [E-3]

**The Agency recognizes the use of the term CCB in the place of CCW in the draft permit and public hearing notice. At the public hearing, the Agency clarified that the landfill was a CCW facility and will be regulated as such.**

## Groundwater

47. Will there be any provisions to test the wells around the retention pond to make sure there's no groundwater contamination? (T-24)

**A state construction and operating permit was issued on June 12, 2009, 2009-EA-2145, included a special condition that outlines the groundwater monitoring requirements for the retention basin.**

48. The draft permit makes no mention of groundwater monitoring in the vicinity of the proposed disposal site. Illinois regulations require "a network of monitoring points shall be established at sufficient locations downgradient with respect to groundwater flow and not excluding the downward direction, to detect any discharge of contaminants from any part of a potential source of discharge." per 35 IAC 811.318(b)(1). (E-3)

**This NDPES permit does not specify the design aspects of the disposal cell (ie. landfill). The landfill design and associated groundwater monitoring requirements are specified in 35 Ill. Adm. Code 811.318 and 811.319.**

49. Are there any provisions for testing private wells? (T-24)

**No, the conditions in the construction permit are specifically for testing the monitoring wells around the retention basin. If the monitoring data indicates any problems at the site, the facility should correct the problem before it migrates off-site. They are required to meet Class 1 groundwater quality standards, which are found in 35 Ill. Adm. Code 620.440. The class 1 groundwater standards require that the groundwater meet the standards, no farther than 25 ft. from the edge of the retention basin. The purpose of the monitoring wells around that settling basin is to assure that Class 1 standards are met.**

50. If the lined retention pond leaks and the monitoring wells show contamination, what is the IEPA going to do? (T-42)

**In most cases, the migration of a contaminant in the groundwater is slow. In a site like this where there is a retention basin that is lined; the Agency requires a groundwater monitoring system to be in place prior to the operation of the facility. 35 Ill. Adm. Code 620.505 and 620.240(e)(1) require the facility to be in compliance with groundwater standards within 25 feet of the edge of the berm of the basin. If there is an exceedance of a groundwater quality standard due to the operation of the facility it could be addressed by establishing a groundwater management zone pursuant to 35 Ill. Adm. Code 620.250. The groundwater management zone requires that an adequate corrective action be taken in a timely and appropriate manner.**

### **Met-South Ash Landfill**

51. One of the types of waste that will be landfilled is scrubber sludge. Is the scrubber sludge coming to the site as a solid, liquid or both? (T-70)

**At this time the facility is still in the process of selecting an air pollution control technology and have not determined how the waste material would be transported to the site but the scrubber sludge would be coming to the site as a solid. See response to number 19.**

52. Can you tell us what part of the IEPA and what type of permitting and public notice process will cover the landfill issues? (T-70) (E-6)

**There are two possibilities. One is that the site will need to be permitted by the IEPA's Bureau of Land as a solid waste landfill. In this case, Met-South will be required to send the Agency a permit application that: 1) demonstrates that the landfill meets all the location standards, 2) provides the design specifications for the liner, the leachate collection system, and the final cover system, and 3) describes the closure and post-closure care processes. The Bureau of Land will review the application and will not issue the permit until the permit application satisfies all the environmental statutory and regulatory requirements for solid waste landfills.**

**The other possibility is that the landfill will be determined to be exempt from the Bureau of Land permitting process. If so, Met-South will still have to submit a document to the Bureau of Land demonstrating compliance with all the environmental statutory and regulatory requirements. However, instead of being reviewed as a permit application and ultimately approved as a permit, the document would come to the BOL, before any waste is disposed of in the landfill, as an initial facility report.**

**Regardless of whether the site is permitted as solid waste landfill or is permit exempt, Met-South will to have to submit a document demonstrating compliance with all the regulatory requirements for solid waste landfills which include location standards, liner and leachate collection systems, final cover, closure and post closure care.**

53. How can the public find out what's going on and voice their concerns on the Met-South ash landfill? (T-72) (E-6)

**In the landfill permit process, even though the regulations do not specifically call for public notice, we require the permit applications to include documentation that the local officials were notified. For initial facility reports, there are no public notice requirements.**

54. Will a buffer or setback be provided during construction to protect the tributary that bisects the proposed facility from erosion and runoff? (T-80)

**A NPDES Stormwater Construction Site Activities permit was issued on May 8, 2009, ILR10L313, which addresses runoff controls and sediment controls during the construction period.**

55. Do you know how big the buffer will be? How wide it will be? (T-81)

**The facility is required to write a stormwater pollution prevention plan (SWPPP) as part of their general permit requirements for construction site activities. This information would be outlined in SWPPP.**

56. When does EEI expect to be sending scrubber sludge to this landfill so that we can anticipate a permit for reviewing the cumulative impact on the leachate coming off of this landfill that will be going back to the Electric Energy facility for disposal? (T-101)

**The facility's current plan is to have the scrubbers in service on three units by January 1, 2015. They are currently in the engineering phase and have not started construction on this project.**

57. Are there residential wells located within 2500 feet of the boundaries of the proposed disposal site? If so, are they upgradient or downgradient of the proposed disposal site? (E-3)

**There are residential wells located within 2500 feet of the boundaries of the disposal cell but none of the wells are directly downgradient from the site.**

58. Generally, permeability and reactive qualities of power plant waste are unknown. Has the agency conducted modeling to determine if the potential exists for contaminant leaching and groundwater contamination? (E-3) (E-6)

**At this time the Agency has not conducted any groundwater modeling. Groundwater monitoring is not part of the scope of the NDPES permit. See response to comments 47, 50, and 66.**

59. Has the Agency investigated whether the location of the CCW landfill is proposed for an area that is likely to serve as an aquifer recharge area? This is a serious issue that needs to be explored and addressed by IEPA staff as mandated in CFR 405.106(d): "The refuse area shall not be located in an area of natural springs or an aquifer recharge area or intercept a drainage course unless special provisions have been made to protect such. The burden of proof shall be on the Agency to show that an area is an aquifer recharge area." (E-3)

**The construction and design of the proposed landfill is not subject to the NPDES permit. Refer to 35 Ill. Adm. Code 811.302(b) for regulations in regard to landfill location as it is related to aquifer recharge areas.**

60. Did the applicant provide to the Agency the required reclamation plan for the power plant waste site? Is longwall mining proposed under the power plant waste landfill? (E-3, 6)

**There is no longwall mining under the proposal landfill site. There are no coal reserves in the county and consequently no coal mines in the area. To the Agency's knowledge, there are no plans to perform any mining under the site, therefore no reclamation plan is required.**

61. Will the Met-South ash landfill have an appropriate liner? (E-3, 6)

**The landfill liner design is covered by 35 Ill. Adm. Code 811.306. See response to comment 52.**

62. In Illinois, county or city governments have the responsibility of approving the location of pollution control facilities such as landfills. Was the siting process detailed in 415 ILCS 5/1 et seq, in Sections 3.330, 39, 39.2 and 40.1 followed for the Met-South, Inc. CCW Management Facility? (E-3)

**Ameren Inc. controls both the Electric Energy plant where the CCW is generated and the Met-South site of the proposed landfill in which the CCW will be disposed. Therefore, the proposed landfill is not a "pollution control facility", per Subsection 3.330(a)(3), and thus is not subject to the siting process. Local siting approval will not be required, even if a determination is made that the landfill must be permitted by Illinois EPA's Bureau of Land.**

63. There is concern that this area is subject to seismic activity from the New Madrid fault. A 2008 FEMA report warns that the New Madrid Fault poses grave dangers to Missouri and Southern Illinois. Precautions should be taken to protect the groundwater and aquifer from even slight movement under the power plant waste landfill. (E-3)

**The design of the landfill is subject to 35 Ill. Adm. Code 811.304(c), 811.304(d), and 811.306(b) to protect the groundwater from movement under the landfill.**

64. There are concerns regarding the process for permitting power plant waste facilities such as this one. This facility requires no landfill permit, regardless of its function as a landfill for toxic power plant waste. As seen by the inadequate liner requirements for this facility, and the lack of groundwater protection measures, it is obvious that the denial of a landfill permitting process puts local groundwater supplies at risk of contamination. We respectfully request that this facility also be permitted through the more stringent and wholly appropriate landfill permitting process.. (E-3)

**See response to comment 52.**

65. The map contained in the public notice does not indicate the location of the proposed landfill. (E-3)

**The NPDES permit only regulates the discharges from Outfall 001 therefore the map only shows the location of the outfall. The NPDES permit does not regulate the disposal cell, therefore it was not shown on the map included in the NPDES permit.**

66. Please explain the site characterization process that was conducted in order to determine that the location for the proposed landfill was appropriate and would be protective of water quality standards and existing uses in the receiving stream and underlying groundwater resources. (E-3) (E-6)

**Met-South will be required to do the modeling that is needed to show that the landfill meets the requirements of the "Groundwater Impact Assessment", required by 35 Ill. Adm. Code 811.317. In performing these assessments, computer modeling is used to take into account the landfill's design, the type of waste that will be disposed in the landfill, and the hydrogeology. To meet the requirements of the Groundwater Impact Assessment, the modeling must show that, 100 years after the landfill is closed, the groundwater 100 feet downgradient from the landfill will not have been impacted by leachate from the landfill.**

## Blowing Ash

67. There is concern about ash blowing off site. (T-37)

**The NPDES permit does not regulate fugitive dust. Landfill regulations 35 Ill. Adm. Code 811.107(g) requires landfill operators to control dust to prevent wind dispersal of particulate matter. Dust problems caused by the landfill can be reported to the IEPA Marion Field Office. The Illinois EPA's Bureau of Air (217) 782-2113 may also regulate fugitive dust emissions from the landfill.**

68. Fugitive dust control at coal combustion disposal sites at either active or abandoned mines is part of a permit. Will the NPDES permit regulate fugitive dust control so that less coal ash constituents will be transported to the stormwater pond? (T-68)

**See response to comment 67.**

69. What is the source of the leachate that will be used for dust control on the site? (T-69)

**The leachate that will be used for dust control by definition is the stormwater that infiltrates the ash and is collected in the leachate collection system at the bottom of the landfill. The facility has the option of conveying the leachate to an ash pond at EEI or spraying the leachate on top of the landfill for dust control, which will leach back down through the landfill contents for potential reuse or discharge to the ash pond at EEI.**

### **Stormwater Retention Basin**

70. Will there be a cover on the settling pond? (T-48)

**No, there will not be any cover on the retention basin.**

71. In 2009, southern Illinois had 15 inches more rain than average. Climate change is happening. What rainfall event did you consider in the sizing of the sediment ponds? Will this be adequate? (T-55)

**The retention basin was designed to have a normal pool storage capacity equivalent to a 100 year 24-hour storm event, which is typical for such a facility.**

72. Due to the proximity of this site to the Ohio River, wetlands and floodplains, was any kind of site characterization done by Illinois EPA regarding the choice of this site for the sedimentation pond? (T-57)

**The Agency does not perform any site characterization for site selecting. Project owners or their consultants undertake this responsibility. The Agency would require the treatment works to be operational in a 25-year floodplain and protected from structural damage in the 100-year floodplain. This requirement is found in 35 Ill. Adm. Code 370.500.**

73. The coal that's being used in this facility could have the potential for high sulfate content and possibly boron, and these can leach pretty easily through clay. Has the agency considered requiring something more than a clay liner, such as a plastic liner? (T-58)

**The retention basin will be lined with a 60 mil geomembrane liner. The design of the landfill liner is subject to 35 Ill. Adm. Code 811.306.**

74. Where can we obtain information about this geomembrane liner at the retention pond? (T-59)

**That information is available under the Freedom of Information Act (FOIA). You may request a copy of construction and operating permit 2009-EA-2145, that was issued on June 12, 2009. You may also request a copy of the engineering review notes, and a copy of the permit application.**

75. In IEPA's file for this facility there is mention of a dam for the retention pond. Was the stream impounded to create the pond or has the pond been dug. (T-102)

**No, the retention basin was excavated. Any man-made bermed retention basin may also be subject to a dam safety permit under the Department of Natural Resources regulations.**

76. What is the 2009 state construction-operating permit for? (T-63)

**The state construction and operating permit was issued to Met-South, Inc. for the construction and operation of the retention basin.**

77. The 500-year floodplain is located within this boundary. Will there be construction within that floodplain? (T-80)

**The construction site is not within the 500 year floodplain as listed on the FEMA floodplain maps.**

### **Additional Issues**

78. There is concern about the difficulty in obtaining information on the multiplicity of IEPA permits at a facility such as Met-South. Some of the permits were issued to EEI and some of the permits issued to Met-South. There were NPDES permits and now possibly landfill permits. There is no system in place at IEPA for checking on other permits issued or needed by any one facility. The files reviewed under FOIA did not provide information about the other permits. (T-63) (E-6)

**The Agency is subject to FOIA regulations and will provide any information on any permits or other information when requested. Files for the BOW and BOL are available under FOIA with using the proper facility name, current facility name, facility address, or permit number.**

79. There may be a landfill permit, there's this NPDES permit for stormwater runoff and truck and equipment wash water, the state operating permit, but is the agency looking at potential cumulative impact from these activities? What about additional generation of power plant waste, including what might come through the liner at the landfill, the leachate going back to the power plant and some of that going out into the Ohio River, the stormwater and equipment washing from this. Seems like there's potential for a cumulative impact spread over three different permits. Who at the agency will be evaluating the overall impact of the additional power plant waste from this particular site on waters of the US and more specifically the Ohio River? (T-99)

**Each permitting program is developed to regulate an activity in accordance with a specific part of the Illinois Pollution Control Board regulations. The NPDES Stormwater Construction Site Activities permit and the construction permit are short term impacts. The long term impacts to surface waters were evaluated during the antidegradation analysis.**

**The NPDES permit program was developed to regulate point source discharges to surface waters of the State. The facility's NPDES Permit authorizes the discharge of stormwater runoff collected from the landfill and truck/equipment washwater via Outfall 001.**

**The facility's NPDES Stormwater Construction Site Activities permit addresses runoff controls and sediment controls during the construction period.**

**The facility's construction and operating permit governs the construction of the retention basin and operation of the groundwater monitoring requirements for the retention basin. This permit regulates activities governed by 35 Ill. Adm. Code 309 Subpart B, and 35 Ill. Adm. Code 620. The above permits are administered by the Agency's Bureau of Water.**

**The design and operation of the landfill is subject to 35 Ill. Adm. Code 811, which is administered by the Agency's Bureau of Land.**

## Acronyms and Initials

BOL	Bureau of Land
BOW	Bureau of Water
CCB	Coal Combustion Byproduct
CCW	Coal Combustion Waste
cfs	Cubic Feet Per Second (measure of stream flow)
DMR	Discharge Monitoring Report
EEI	Electric Energy Incorporated
FEMA	Federal Emergency Management Agency
FOIA	Freedom of Information Act
FOS	Field Operations Section
IDNR	Illinois Department of Natural Resources
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
ILCS	Illinois Compiled Statutes
Ill. Adm. Code	Illinois Administrative Code
mg/L	Milligrams per Liter
MGD	Million Gallons per Day
NPDES	National Pollutant Discharge Elimination System
PCB	Pollution Control Board
pH	A measure of acidity or alkalinity of a solution
SWPPP	Stormwater Pollution Prevention Plan
TDS	Total Dissolved Solids

TSS	Total Suspended Solids
303(d)	Section of federal Clean Water Act dealing with impaired waters
7Q10	Lowest continuous seven-day flow during a 10-year period

## DISTRIBUTION OF RESPONSIVENESS SUMMARY

An announcement, that the NPDES permit decision and accompanying responsiveness summary is available on the Agency website, was mailed to all who registered at the hearing and to all who sent in written comments. Printed copies of this responsiveness summary are available from Illinois EPA Hearing Officer Dean Studer, 217-556-8680, e-mail: [Dean.Studer@illinois.gov](mailto:Dean.Studer@illinois.gov).

## WHO CAN ANSWER YOUR QUESTIONS

### Illinois EPA NPDES Permit:

Illinois EPA NPDES technical decisions .....	Leslie Lowry .....	217-782-0610
Legal questions .....	Joey Logan-Wilkey...	217-782-5544
Surface water quality issues .....	Scott Twait .....	217-782-3362
Public hearing of December 7, 2009 .....	Dean Studer.....	217-558-8280

### Illinois EPA Bureau of Land

Landfill Issues.....	Chris Liebman .....	217-524-3294
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The public hearing notice, the hearing transcript, the NPDES permit and the responsiveness summary are available on the Illinois EPA website:

<http://www.epa.state.il.us/public-notices/2009/npdes-notices.html#met-south-coal>

J/Responsiveness Summary/Met-South NPDES Responsiveness Summarydaa.docx

**ATTACHMENT 2**

2013 OCT 17 PM 1:57

STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

IN THE MATTER OF:	)	BEFORE THE BOARD OF
	)	WATER QUALITY, OIL, AND
	)	GAS
TENNESSEE CLEAN WATER NETWORK	)	
and SOUTHERN ALLIANCE FOR	)	
CLEAN ENERGY,	)	
Petitioners,	)	CASE NO. WPC10-0116
	)	
v.	)	DOCKET NO. 04.30-110315A
	)	
TENNESSEE DEPARTMENT OF	)	
ENVIRONMENT AND CONSERVATION,	)	
Respondent,	)	
	)	
and	)	
	)	
TENNESSEE VALLEY AUTHORITY,	)	
Intervenor.	)	

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**FINAL BOARD ORDER**

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This matter came to be heard before the Board of Water Quality, Oil and Gas upon the National Pollutant Discharge Elimination System (NPDES) permit appeal petition filed by the Tennessee Clean Water Network (TCWN) and Southern Alliance for Clean Energy (SACE) at an open public meeting of the Board on October 15th through 17th, 2013, at which a quorum was present. Petitioners TCWN and SACE were represented by Mary Whittle and Bridget Lee of Earthjustice and Stephanie Matheny of TCWN. The Tennessee Department of Environment and Conservation (TDEC) was represented by Patrick Parker and Austin Payne with the Office of General Counsel. The Intervenor Tennessee Valley Authority (TVA) was represented by Michael Stagg, Ed Callaway, Luran Sturm, and Chris Hayes with the law firm of Waller Lansden Dortch and Davis, LLP. The Board read the stipulation of the parties, heard testimony,

reviewed exhibits, and listened to the argument of the parties. The Board considered the evidence introduced by the parties. At the close of Petitioners' case-in-chief, TDEC and TVA moved, pursuant to Tennessee Rule of Civil Procedure 41.02, for involuntary dismissal. The Board heard argument from all parties on the motion, and the Board also received the instructions of an Administrative Judge from the Office of the Secretary of State. After deliberation, the Board voted to adopt the following findings of fact, conclusions of law, reasons for decision, and order.

#### FINDINGS OF FACT

1. TDEC issued a renewal of NPDES permit TN0005410 on September 30, 2010, with an effective date of November 1, 2010 (Permit), Exhibit 1, authorizing the discharge of wastewater from TVA's Bull Run Fossil Plant into the Melton Hill Reservoir of the Clinch River.

2. Petitioners TCWN and SACE timely filed their petition for statutory appeal of the Permit with the Board on November 1, 2010, within thirty days of receiving public notice of the decision. Exhibit 2; Stipulation 21. The petition states that TDEC violated the Clean Water Act (CWA) and the Tennessee Water Quality Control Act (TWQCA) by issuing an NPDES permit to TVA that does not include any numeric technology-based effluent limitations for metals, Total Dissolved Solids (TDS) and other parameters aside from pH, Total Suspended Solids (TSS), and Oil and Grease. Exhibit 2.

3. Bull Run is a coal-fired power plant which began operation in 1967 with a capacity of approximately 950 megawatts. Stipulation 2.

4. To curb air emissions and achieve compliance with new federal and state air pollution standards, including the Tennessee Air Quality Act, TVA recently constructed and installed at Bull Run a flue gas desulfurization (FGD) system or scrubber. The scrubber became operational in December of 2008. Stipulation 6.

5. The discharge from Outfall 001 is comprised of FGD wastewaters, bottom ash sluicing waters, coal pile runoff, and other miscellaneous wastewater streams. Stipulation 9.

6. TVA operates a pond treatment system that abuts the Melton Hill Reservoir. The pond system includes a bottom ash disposal area, a gypsum disposal area, a sluice channel, a settling pond, and a stilling basin. All of these various wastewaters are eventually collected in the settling pond and, from there, flow into the stilling basin from which they are discharged through Outfall 001.

7. The current Environmental Protection Agency (EPA) Effluent Limitations Guidelines (ELGs) and standards — for the Steam Electric Power Generating Category that apply to low volume waste and ash transport waters were promulgated in 1982 and limit the following parameters: (1) pH and PCBs; (2) TSS; and (3) oil and grease. 40 C.F.R. § 423.12. Other toxic pollutants were considered but “excluded” from the regulation as they were “present in amounts too small to be effectively reduced by technologies known to the Administrator.” Exhibit 75: 47 Fed. Reg. 52,290, 52,303 (Nov. 19, 1982).

8. EPA establishes national effluent guidelines for particular pollutants discharged at certain categories of the industry dischargers, thus relieving the agency from conducting these case-by-case determinations.

9. EPA's 1996 NPDES Permit Writers' Manual states: "It should be noted that prior to establishing [Best Professional Judgment] BPJ-based limits for a pollutant not regulated in an effluent guideline, the permit writer should ensure that the pollutant was not considered by EPA while developing the ELGs (i.e., BPJ-based effluent limits are not required for pollutants that were considered by EPA for regulation under the effluent guidelines, but for which EPA determined that no ELG was necessary)." Exhibit 76: US EPA NPDES Permit Writers' Manual, Chapter 5, pages 69-70 (Dec. 1996).

10. EPA's 2010 NPDES Permit Writers' Manual states, "[C]ase-by-case TBELs are established in situations where EPA promulgated effluent guidelines are inapplicable. That includes situations such as the following: . . . . When effluent guidelines are available for the industry category, but no effluent guidelines requirements are available for the pollutant of concern (e.g., a facility is regulated by the effluent guidelines for Pesticide Chemicals [Part 455] but discharges a pesticide that is not regulated by these effluent guidelines). The permit writer should make sure that the pollutant of concern is not already controlled by the effluent guidelines and was not considered by EPA when the Agency developed the effluent guidelines." Exhibit 79: US EPA NPDES Permit Writers' Manual, Chapter 5, pages 5-45 to 5-46 (Sept. 2010).

11. On March 3<sup>rd</sup>, 2010, the EPA issued a letter approving the Bull Run Permit. Exhibit 6.

CONCLUSIONS OF LAW

1. The Petitioners have the burden of proof to show by a preponderance of the evidence that the Permit does not comply with the TWQCA. *See* Tenn. Code Ann. §§ 69-3-101, 69-3-105(i).

2. The existing 1982 ELG for power plants applied to Bull Run and established the discharge limits required to be set in the Permit. Because the 1982 ELG for power plants governs, a Best Professional Judgment (BPJ) analysis was not required.

3. In drafting the existing and applicable ELGs, EPA considered setting numeric limits for the metals identified in the petition but "excluded [these metals] from national regulation because they are present in amounts too small to be effectively reduced by technologies known to the Administrator." Therefore, TDEC was not legally required to conduct a BPJ analysis in issuing the Bull Run Permit.

4. Because TDEC issued the Permit in full compliance with the TWQCA and the CWA, there is no basis for Petitioners' claims. It was legally impossible for TDEC to have violated the law by voluntarily conducting a discretionary BPJ analysis. Tennessee Code Annotated Section 69-3-105(i) dictates that a permitting decision may be reversed or modified only "upon finding that it does not comply with any provisions of this part [of the Act]."

5. Federal and State regulations give TDEC's permit writers discretion to determine whether and when to develop additional limits for pollutants that are not covered by BLGs applicable to an industry waste category. TDEC was afforded such discretion when it concluded that additional effluent limits were unnecessary, because the pollutants in Bull Run's wastewater were not being discharged at levels likely to cause toxic effects. Therefore, TDEC had complete discretion to choose whether or not to impose BPJ limits in the Bull Run Permit.

6. In Tennessee, TDEC's permit writers' discretion also stems from the specific provisions contained in the TWQCA and implementing regulations. Specifically, Tennessee Code Annotated Section 69-3-108(g)(1) and Tennessee Rules 1200-04-05-.04(1)(f) and 1200-04-05-.08(1)(a) contemplate the permit writer being afforded discretion to impose additional effluent limitations, consistent with the CWA.

**RELIEF GRANTED**

The Motion to Dismiss filed by TDEC and TVA is granted.

**REASONS FOR DECISION**

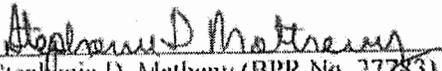
The Board takes this action consistent with Tennessee law and regulations and consistent with its mission to protect waters of the state.

**FOR THE TENNESSEE WATER QUALITY, OIL AND GAS BOARD:**

James W. Camrout  
Chairperson

DATE: Dec. 4, 2013

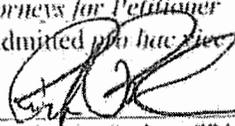
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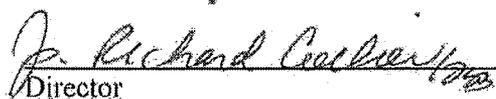
**RIGHTS OF APPEAL**

The Parties are hereby notified and advised of their right to administrative and judicial review of this FINAL ORDER, pursuant to the Tennessee Uniform Administrative Procedures Act, Tennessee Code Annotated Sections 4-5-317 and 4-5-322, and the Tennessee Water Quality Control Act, Tennessee Code Annotated Section 69-3-101 *et seq.*

Tennessee Code Annotated Section 4-5-317 gives any party the right to file a Petition for Reconsideration within ten (10) days after the entry of a FINAL ORDER, stating specific grounds upon which relief is requested.

Tennessee Code Annotated Section 4-5-322 and Section 69-3-101 *et seq.* provide any party the right to judicial review by filing a Petition in the Chancery Court of Davidson County within sixty (60) days of this FINAL ORDER becoming effective. A copy of this FINAL ORDER shall be served upon the Parties by certified mail, return receipt requested. This FINAL ORDER shall become effective upon entry.

Entered in the office of the Secretary of State, Administrative Procedures Division, this the 17th day of December, 2013.

  
\_\_\_\_\_  
Director  
Administrative Procedures Division

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

NATURAL RESOURCE DEFENSE COUNCIL, )  
PRAIRIE RIVERS NETWORK and SIERRA )  
CLUB, )

Petitioners, )

v. )

ILLINOIS ENVIRONMENTAL PROTECTION )  
AGENCY and DYNEGY MIDWEST )  
GENERATION, INC., )

Respondents. )

PCB No. 13-17  
(Third-Party NPDES Permit Appeal)

**ADDITIONAL APPEARANCE**

I hereby enter my additional appearance in this proceeding on behalf of the Respondent,  
The Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: Gerald T. Karr

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**(NRDC, et al. v. IEPA, et al. PCB 13-17)**

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**CERTIFICATE OF SERVICE**

I, GERALD T. KARR, an Assistant Attorney General in this case, do certify that on this 24th day of February, 2014, I caused to be served electronically the attached Additional Appearance, Cross-Motion for Summary Judgment and Memorandum of Law in Response to Petitioners' Motion for Summary Judgment and in Support of Respondent's Cross-Motion for Summary Judgment, upon the following persons:

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Carol Webb, Hearing Officer  
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James R. Thompson Center  
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and electronically and by first class mail, postage affixed, upon:

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