**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

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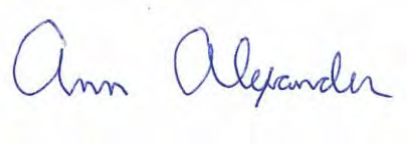
| **NATURAL RESOURCES DEFENSE COUNCIL**<br>**PRAIRIE RIVERS NETWORK, and**<br>**SIERRA CLUB,** | ) | |
| **Petitioners,** | ) | |
| v. | ) | |
| | ) | **PCB 13 - 017**<br>**(PERMIT APPEAL)** |
| **ILLINOIS ENVIRONMENTAL PROTECTION AGENCY and DYNEGY MIDWEST GENERATION, INC.,** | ) | |
| **Respondents** | ) | |

To:

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

Persons on the attached service list

Please take notice that today I filed with the office of the Clerk of the Pollution Control Board the **Petitioners' Motion for Summary Judgment** and **Memorandum of Law in Support of Petitioners' Motion for Summary Judgment** on behalf of the Natural Resources Defense Council, Prairie Rivers Network, and Sierra Club, a copy of which is hereby served on you.



By: _____
Ann Alexander, Natural Resources Defense Council

Dated: December 18, 2013

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## MOTION FOR SUMMARY JUDGMENT

PLEASE TAKE NOTICE that up the accompanying Memorandum of Law and all documents in the Administrative Record in this matter, Petitioners Natural Resources Defense Council, Prairie Rivers Network, and the Sierra Club move the Illinois Pollution Control Board for summary judgment and remand of the subject permit to defendant Illinois Environmental Protection Agency pursuant to ILL. ADMIN. CODE tit. 35 § 101.516.

Respectfully submitted this 18th day of December, 2013 by:

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| **GENERATION, INC.,** | ) | |
| | ) | |
| **Respondents** | ) | |

**MEMORANDUM OF LAW IN SUPPORT OF**
**PETITIONERS' MOTION FOR SUMMARY JUDGMENT**

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## Introduction

Petitioners Natural Resources Defense Council (NRDC), Prairie Rivers Network (PRN), and the Sierra Club (collectively, Petitioners) submit this memorandum in support of their Motion for Summary Judgment and remand of the subject permit to defendant Illinois Environmental Protection Agency (IEPA or Agency). Despite acknowledging the defendant Dynegy Midwest Generation (Dynegy) will discharge up to .6 pounds of highly toxic mercury per day to the ash ponds at its Havana power plant (Facility) in connection with its new air pollution control equipment, that the ash ponds discharge to the Illinois River, and that the River is already violating mercury standards, IEPA improperly allowed the increased loading after failing to conduct the required scrutiny of the resulting discharge and its potential impact.

Consequently, the permit contains no limit on mercury and other toxic pollutants despite IEPA's acknowledgement that pollutant discharges will increase above current levels – effectively allowing Dynegy to simply shift its pollution from air to water. This failure to address and limit discharge of toxins to the Illinois River violates, as a matter of law, the Clean Water Act (CWA) and Illinois law in multiple respects.

First, the record is plain that IEPA did not do the work necessary to ensure compliance with water quality standards as required at both ILL. ADMIN. CODE tit. 35 §§ 304.105, 309.141 and 309.143 (NPDES permitting regulations) and ILL. ADMIN. CODE tit. 35 § 302.105 (antidegradation regulations), but on the contrary allowed a discharge without properly determining whether there was a reasonable potential that it would cause or contribute to a violation of water quality standards. Indeed, the record reflects that IEPA knew that a similar mercury discharge had caused standards exceedances elsewhere, but declined to further consider the matter before issuing the permit. Given that the water is already impaired by mercury, it is

clear that allowing any increased mercury pollution contributes to the problem. Moreover, IEPA performed no assessment concerning other toxins known to be associated with the Facility's pollution control equipment. This failure to assure that water quality standards are not exceeded requires that the permit be remanded to the IEPA for reconsideration.

Second, IEPA failed to conduct proper antidegradation analysis. The antidegradation regulations require *both* a showing that water quality standards will not be exceeded (as described above) *and* that, even if standards will be met, the new or increased discharge is necessary, i.e., there is no good alternative to it. In addition to not meaningfully addressing water quality standards, Respondents' antidegradation analysis fell far short of the standards for such analysis set by the Illinois Pollution Control Board (IPCB or Board) based upon applicable regulations and guidance. *See* ILL. ADMIN. CODE tit. 35 § 302.105(c)(2); *Des Plaines River Watershed Alliance v. IEPA* (*New Lenox*), PCB 04-88 (April 19, 2007), *aff'd sub nom. IEPA v. IPCB*, 896 N.E.2d 479 (Ill. App. Ct. 3d. 2007). The Agency did not look closely at characteristics of the metals-laden waste stream, and hence evaluated only mercury and not the other toxic metals (e.g., arsenic and selenium) known to be associated with ACI waste. It furthermore did not meaningfully consider alternatives to Dynegy's extraordinarily low-tech method of dumping mercury-laden waste into a wet ash impoundment – even though the United States Environmental Protection Agency (USEPA) has clearly stated that more protective measures exist.

Third, IEPA failed to comply with CWA requirements that, in the absence of a USEPA effluent limitation guideline (ELG) for the type of air pollution control waste at issue, the Agency use its best professional judgment (BPJ) to determine best available technology (BAT) for controlling the discharge and set a numeric technology-based effluent limitation (TBEL)

accordingly. What is more, IEPA violated the notice and comment requirements of Illinois law by failing to respond at all to Petitioners' comments concerning this issue.

These failures are particularly problematic in view of USEPA's recent promulgation of a draft ELG for coal-fired power plants. The draft ELG sets forth extensive analysis by USEPA supporting a proposed zero-discharge standard for the waste at issue here, which directly contravenes the meager basis provided by Dynegy and IEPA for allowing Dynegy to continue operating its antiquated ash pond system. Indeed, the draft rule (in which USEPA considered the documents relied upon by Respondents) states in no uncertain terms that dry handling of the waste – a solution rejected out of hand by Dynegy and IEPA – is not only far superior technologically but in use at a large majority of coal-fired power plants using the mercury control technology at issue here.

While the analysis that should have been conducted is fact-intensive (which is why careful Agency analysis is necessary), there is no genuine issue of material fact as to IEPA's failure to conduct it. Accordingly, summary judgment should be granted and the permit remanded to IEPA with instructions that it be reconsidered in compliance with the law. Specifically, any permit must be based on appropriate analyses of antidegradation, best available technology, and reasonable potential to exceed, and must establish numeric pollutant limits based on these analyses.

## Statement of Facts

### Dynegy Permit Application

Dynegy submitted an application to IEPA for renewal of its National Pollution Discharge Elimination System (NPDES) permit in November 2006, prior to expiration of its then-current

permit. R. 5 *et seq.* (Application).[1] The Application included a number of new and increased discharges, including, among others, discharges associated with air pollution control equipment that Dynegy planned to install at the Facility to comply with its 2005 consent decree with USEPA. Specifically, the application stated that Dynegy would be installing a dry scrubber as well as an activated carbon injection (ACI) system to remove mercury from the Facility's air emissions. Application at 5-6, R. 9-10. Dynegy estimated that after installation of the equipment, the Facility would discharge up to 260 tons daily of combined fly ash and sorbent residue to the Facility's east ash pond. Dynegy estimated that up to 2.6 tons of the combined material sent to the east ash pond would be mercury sorbent residue, and that the total mercury contained in the sorbent residue would range up to 0.6 pounds daily. *Id.* The east ash pond discharges to the Illinois River via Outfall 005. *Id.*

In connection with these anticipated discharge increases, Dynegy submitted an antidegradation assessment to IEPA in July 2010 purporting to address the antidegradation analysis requirements set forth in ILL. ADMIN. CODE tit. 35 § 302.105(f)(1). R. 528 *et seq.* (Antidegradation Assessment). In characterizing the Illinois River, Dynegy's analysis stated, "The stream is listed as impaired for fish consumption and primary contact uses on the Illinois Integrated Water Quality Report and Section 303(d) List – 2006," and "[t]he potential causes of impairment are given as mercury and PCBs for the fish consumption use." R. 530. Dynegy's characterization of the waste stream associated with the ACI (required pursuant to ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(B)) consisted of the following statement:

> The ACI system will result in a daily mercury loading, to the east ash pond system, of approximately 0.0 to 0.6 pounds. Field studies of activated carbon injection have been conducted. More specifically, the Electric Power Research Institute (EPRI), as discussed in the *Activated Carbon Injection: Effect on Simulated Fly Ash Sluice Water,* revised March 2007, concludes that "mercury

[1] Page citations to the administrative record will be referenced as R. __.

> captured from the flue gas by the carbon is generally stable and does not leach out during the simulated sluicing process". This EPRI report further states that "Mercury is strongly retained by the coal combustion residues and unlikely to be leached at levels of environmental concern."

R. 531 (citing Electric Power Research Institute, *Activated Carbon Injection: Effect on Simulated Fly Ash Sluice Water* (March 2007) (EPRI Study). With respect to the scrubber waste, Dynegy provided data from its Baldwin facility concerning the constituents in scrubber waste but not ACI waste. R. 534 *et seq*. With respect to the ACI waste, the analysis of alternatives to minimize or eliminate the associated discharge to the River (required pursuant to ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(D)) consisted in its entirety of the following:

> The mercury, adsorbed onto the activated carbon, cannot be segregated from the SDA residue and, therefore, must be disposed of with the SDA residue.
>
> Disposal of SDA residue on-site is environmentally acceptable, when compared to disposal off-site. Also, on-site disposal would reduce costs and possible adverse impacts, associated with transportation.
>
> It should be noted that the east ash pond system is lined.
>
> Other treatment or disposal alternatives, that would offer technical or economic advantages, do not exist.

R. 532.

Dynegy's Application did not purport to address the CWA requirement[2] that, in the absence of an ELG defining best available technology and associated limits for toxic pollutants, such limits must be established through case-by-case best professional judgment analysis to develop a technology-based effluent limitation. It also did not purport to supply information necessary to perform reasonable potential analysis pursuant to ILL. ADMIN. CODE tit. 35 § 309.143(a), i.e., analysis to determine whether the proposed discharge had a reasonable potential to cause or contribute to an excursion above water quality standards in the receiving waters.

[2] 33 U.S.C.A. §§ 1311(b)(2)(A)(i) and 1342(a)(1), and 40 C.F.R. § 125.3. *See infra* Point III.

**IEPA's Analysis of the Proposed Discharge**

In September 2010, IEPA's Bob Mosher sent a memorandum to permit writer Mark Liska setting forth the Agency's antidegradation analysis. R. 544 *et seq.* (Mosher Memorandum). The waste stream characterization in the Mosher Memorandum reiterated the reference in Dynegy's Antidegradation Assessment to the EPRI Study without providing additional data or analysis. It concluded that the mercury was "expected" to stay in the ACI sorbent discharged into the ash pond system, and that, in any event, "[w]hatever low levels that are discharged from the ash pond represent a decrease in loading to the environment" since the mercury had been removed from air emissions. R. 545. With respect to the increased fly ash loading to the ash pond overall, the Mosher Memorandum concluded that the additional contaminated ash "will result in some loading increase of the constituents of fly ash including metals," but stated, without citation or reference, "[t]his increase is also anticipated to be relatively small and will have no impact on aquatic life in the river." *Id.*

Although the Mosher Memorandum contained a bare conclusion that "the proposed activity will result in the attainment of water quality standards," and that "all existing uses of the receiving stream will be maintained," R. 546, there is no evidence in the record that IEPA took the necessary steps to determine whether the increased discharge from the Facility's pollution control equipment had reasonable potential to cause or contribute to an exceedance of water quality standards.[3]

Regarding alternatives to discharging the fly ash and sorbent residue directly into the ash pond without treatment, the entire analysis in the Mosher Memorandum consisted of the following:

[3] These steps are set forth in a USEPA technical support document (TSD), *see infra* note 9.

> Disposal of the mercury containing sorbent with the fly ash is necessary given that the mercury sorbent is mixed in with the other ash. Converting the power plant to a dry ash handling system is an alternative that was considered by the applicant. However, the existing lined East ash pond system has considerable useful life remaining as an ash storage facility. Dynegy estimates that several years of capacity remains to accept sluiced ash. Abandoning this considerable existing investment is not a reasonable alternative. When the ash pond system becomes full, Dynegy will consider the alternatives for ash disposal available at that future time and dry ash landfilling will be a topic of discussion. Therefore, no feasible alternatives exist for the changes proposed.

R. 546.

**IEPA Permit Issuance and Petitioners' Comments**

IEPA issued the draft renewed NPDES permit for the Facility (Draft Permit) on May 11, 2011. R. 599 *et seq.* (Draft Permit and Fact Sheet). The Draft Permit contained a quarterly monitoring requirement for mercury, but no limit for mercury or any other metals. The Fact Sheet reiterated, essentially word for word, the conclusions of the Mosher Memorandum concerning antidegradation. Neither the Draft Permit nor the Fact Sheet reflected a reasonable potential analysis or BAT/BPJ analysis for the discharge from the east ash pond via Outfall 005.

Petitioners PRN and Sierra Club submitted initial comments concerning the draft permit on June 10, 2011. R. 625 *et seq.* (PRN Initial Comments). IEPA subsequently held a hearing concerning the Draft Permit on November 7, 2011, at which representatives of PRN and Sierra Club appeared and spoke, and PRN submitted written testimony. R. 720 *et seq*. Following the hearing, all three Petitioners submitted two separate sets of comments, with PRN and NRDC as separate lead authors. R. 972 *et seq.* and 891 *et seq.* (PRN Comments and NRDC Comments, respectively).

In their collective comments (Comments), Petitioners submitted documentation showing that coal combustion waste is laden with both mercury and other co-collected metals such as arsenic and selenium. They cited to information concerning the extreme toxicity of mercury and potential

for harm to human health, including the statewide advisory on fish consumption due to mercury contamination in Illinois waters. PRN Comments at 3, 13, R. 974, 984. Petitioners cited the USEPA study that would subsequently serve as part of the basis for USEPA's 2013 revised ELG proposal concerning the ecological threat associated with such waste. NRDC Comments at 6 n.5, R. 897 (citing USEPA, *Steam Electric Power Generating Point Source Category: Final Detailed Study Report (*821-R-09-008) 169 (Oct. 2009) (*USEPA 2009 Report*).

Petitioners noted that the EPRI Study that was referenced by both Respondents in cursory fashion to support their supposition that captured mercury is "unlikely to be leached at levels of environmental concern" was industry-sponsored, inconclusive (mercury is "generally" stable and "unlikely" to leach), and based on laboratory-scale analysis that was by its own terms very preliminary. Specifically, Petitioners noted that the EPRI Study itself states up front as follows:

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

NRDC Comments at 8, R. 899 (emphasis added) (quoting *EPRI Study*, *supra*, at v). Petitioners also pointed out how Dynegy's cursory analysis adopted by IEPA had cherry-picked a line from a preliminary and mostly non-relevant USEPA report – which specifically addressed only leaching to groundwater from wet ash ponds, not discharge to surface water, and was based on laboratory analysis only. *Id.* (citing USEPA, *Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control* (EPA-600/r-06/008) (Feb. 2006)) (*USEPA Characterization*). *See also* Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 78 Fed. Reg. 34431, 34456 (June 7, 2013) (to be codified at 40 C.F.R. pt. 423) (Draft ELG)[4]

[4] This is the Draft ELG discussed at more length *infra.*

(regarding USEPA's proposed adoption of an effluent limitation guideline requiring zero discharge for ACI sorbent residue contaminants based on availability of dry handling technology to eliminate threat of leaching).

Finally, Petitioners' Comments cited documents demonstrating that settling ponds are not an effective means of controlling discharge of pollutants associated with scrubbers, and that better technology exists. Petitioners pointed to USEPA's guidance document concluding that, "[f]or metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction," and "[t]echnologies more advanced than settling ponds are available." Memorandum from James A. Hanlon of EPA's Office of Water to EPA Water Division Directors, Attachment A at 3-4 (June 7, 2010) (Hanlon Memo) (*quoted in* NRDC Comments at 7, R. 898).[5] The Hanlon Memo concludes,

> Technologies more advanced than settling ponds are available and more effective at removing both soluble and particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids. Therefore, although each permit is case-specific, EPA expects as a general matter that settling ponds are unlikely to represent the BAT for control of pollutants in FGD wastewater, given that more effective treatment technologies have been demonstrated to reduce pollutants in FGD wastewater.

NRDC Comments at 11, R. 902 (quoting Hanlon Memo, *supra*, Attachment A at 3-4).[6] Along these same lines, Petitioners cited the USEPA 2009 Report concluding that "settling ponds are not

[5] The Hanlon Memo was incorporated by reference in Petitioners' Comments, with a web link provided. NRDC Comments at 7 n.6, R. 898.

[6] The Hanlon Memo addresses flue gas desulfurization (FGD), i.e., scrubber wastewater, a related pollutant stream that contains essentially the same pollutants as scrubber fly ash. The settling ponds at issue here rely on gravity to remove the harmful constituents of scrubber and ACI waste, in the same way the ponds referenced in the Hanlon Memo use gravity to remove the same harmful constituents from FGD wastewater. *See* Hanlon Memo Attachment A at 3 (*cited in* NRDC Comments at 6-7, R. 897-98). In its Draft ELG issued in June, 2013 recommending a zero discharge standard for ACI waste, USEPA specifically identified the presence of the dissolved form of pollutants in that waste as a basis for the conclusion that wet ash ponds are an insufficient form of control, stating, "Although surface impoundments can effectively remove particulate forms of metals and other pollutants, they are not designed for nor are they effective at removing other pollutants of concern such as dissolved metals and nutrients. Effluent limits based on dry handling would completely eliminate the discharge of pollutants in FGMC wastewater." USEPA Draft ELG, 78 Fed.Reg. at 34464 (June 7, 2013) (*see infra* Point II). (FGMC – flue gas mercury control – includes ACI systems.)

designed to reduce the amount of dissolved metals" in wastewater associated with scrubbers, and that "[t]hese dissolved metals are likely discharged largely unremoved from FGD wastewater settling ponds." *USEPA 2009 Report*, *supra*, at 99 (*cited in* NRDC Comments at 6-7 n.5, R. 897-98).

Based on these observations, Petitioners raised the following specific legal issues in one or more of their comment submissions:

1. *Reasonable potential analysis.* Dynegy failed to provide IEPA with sufficient basis to evaluate whether the increased discharge of mercury and other pollutants associated with the ACI and scrubber waste had a reasonable potential to cause or contribute to an exceedance of water quality standards in the Illinois River, and IEPA failed to perform such analysis, as required by 40 C.F.R. § 122.44(d)(1) and ILL. ADMIN. CODE tit. 35 §§ 309.141(d), 309.143 and 302.105. *See* PRN Initial Comments at 2-3, R. 626-27; PRN Comments at 8-10, R. 963-65.
2. *Antidegradation*. While both Dynegy and IEPA acknowledged that an increased discharge of pollutants into the Illinois River from Outfall 005 would result from discharge of the fly ash mixed with ACI sorbent waste to the east ash pond, neither Dynegy nor IEPA conducted adequate antidegradation analysis pursuant to ILL. ADMIN. CODE tit. 35 § 302.105. Aside from their failure to assure that water quality standards would be met, they also failed to (i) identify and quantify the proposed load increases for the applicable parameters and the potential impacts of the proposed activity on the affected waters, or (ii) assess the cost and feasibility of alternatives to proposed increases in pollutant loading, including additional treatment levels, discharge to different locations, and pollution prevention measures. *See* NRDC Comments at 2-12, R. 893-903; PRN Comments at 4-8, 9-15, R. 959-63, 964-70.

3. *BAT/BPJ analysis to establish TBELs.* Dynegy failed to provide IEPA with sufficient basis to perform BPJ analysis to establish a TBEL for Outfall 005 that reflects BAT for mercury, and IEPA failed to perform such analysis, as required by 33 U.S.C.A. § 1311, 40 C.F.R. §§ 125.3(a) and 122.21(e) and ILL. ADM. CODE tit. 35 § 309.141(a). *See* NRDC Comments at 14-20, R. 905-11.

IEPA issued the final permit (Permit) to Dynegy on September 14, 2012, R. 696 *et seq.*, accompanied by a Responsiveness Summary (RS), R. 672 *et seq.* Immediately prior to issuance of the Permit, IEPA Bureau of Water Chief Marcia Willhite expressed concern to permit writer Bob Mosher as to whether IEPA had sufficient basis to assume that mercury discharge would not increase, particularly in view of data available from another coal-fired plant in Illinois employing mercury removal equipment at which ash pond effluent exceeded applicable water quality standards. Their exchange via email reads as follows:

> WILLHITE: Is Ameren Newton the only ash pond where we have seen mercury in the pond effluent that exceeds the WQS?
>
> MOSHER: It's the only one I know of. Given the timing of the decision to place mercury monitoring conditions in industrial permits (approx 7 years ago or so) we have not reviewed very much data in the course of WQ analysis at permit renewal. The other thing is that the operations at Newton were ahead of most plants regarding mercury removal in the air emissions.
>
> WILLHITE: Hmmm. Perhaps monitoring data from coal ash ponds should be reviewed outside of renewal, just to evaluate what the data are telling us.
>
> MOSHER: I'll consider this an assignment.
>
> WILLHITE: I would not want us to continue to assume that no or very little mercury is being discharged if we have monitoring data in house that says differently.

R. 692-93 (Sept. 5, 2012 exchange). Whatever analysis of mercury discharge may or may not have been performed "outside of renewal," the Permit record does not reflect that any further steps were taken to review data from the referenced Newton plant or any facility using such equipment in other

states; or to otherwise evaluate and quantify the increased mercury discharge associated with the Facility's ACI.

The Permit made no changes to the Draft Permit based on Petitioners' comments. The RS repeatedly acknowledged that the increased discharge of scrubber and ACI waste to the east ash pond would result in an increase in pollutant loading to the Illinois River via Outfall 005, while downplaying the magnitude and significance of that increased loading. *See* RS at 6, R. 677 ("no significant amount of metals" expected to discharge to the River); RS at 7-8, R. 678-79 (repeatedly stating that additional loading from permit modifications is "minimal" and that "almost all" mercury will remain in the ash pond). Additionally, the Agency took the position that it was not required to perform analysis of dry ash handling as an alternative to the ash pond system because Dynegy was not proposing to use a new system, but only to increase loading to the existing system. RS at 8 ¶ 12, R. 679. Finally, it stated, without further explanation,

> Any sorbent that does discharge will settle in the Illinois River. Mercury is strongly attracted to sediments where it can be transformed into methyl mercury by bacteria. Mercury would remain in the sediments or become methylated. Mercury discharging in the permitted low parts per trillion range will not result in the contamination of sediments.

RS at 13 ¶ 34, R. 684.[7]

**Post-Permit Procedural History**

Petitioners timely filed this Appeal on October 18, 2012. Petitioners subsequently filed an enforcement action concerning the Permit, *NRDC v. IEPA*, PCB 13-65 (May 15, 2013), requesting modification of the Permit in view of post-issuance sampling results showing discharges to the Illinois River with mercury levels that consistently exceeded the human health standard of 12 nanograms per liter applicable to the Illinois River under ILL. ADMIN. CODE tit. 35

[7] As explained in Point III *infra*, methyl mercury is actually the more toxic form that accumulates in fish tissue; and dilution is of no benefit with respect to bioaccumulative contaminants such as mercury.

§ 302.208. The Board dismissed the complaint on jurisdictional grounds on September 5, 2013. *NRDC v. IEPA,* PCB 13-65 (Sept. 5, 2013).

Also following issuance of the Permit, USEPA issued its Draft ELG, 78 Fed. Reg. 34431 (June 7, 2013) (to be codified at 40 C.F.R. pt. 423). The Draft ELG revises the 1982 ELG applicable to coal-fired power plants, in which USEPA had expressly declined to address waste streams from scrubbers or ACI equipment. The Draft ELG proposes a zero-discharge limit for ACI waste as BAT based on the availability of dry ash handling technology. Draft ELG, 78 Fed. Reg. at 34456. The comment period closed on September 20, 2013, and no final rule has yet been issued.

**Standard of Review**

Although a third-party permit appellant bears the burden of proof that the Permit as issued will violate the Environmental Protection Act (Illinois Act) or Board regulations, IEPA's decision to issue the Permit is not awarded any special deference by the Board. 415 ILL. COMP. STAT. 5/40(a)(1); *New Lenox,* PCB 04-88 at 11 ("The Board reviews the entirety of the record to determine (1) if the record supports the IEPA's decision, and (2) that the procedures used by the IEPA are consistent with the Act and Board regulations. The Board does not affirm the IEPA's decision on the permit unless the record supports the decision.") (citing *IEPA v. PCB,* 115 Ill. 2d 65, 70; 503 N.E.2d 343, 345 (1986)).

Summary judgment is appropriate, in a permit appeal or other matter, when there is no genuine issue of material fact and the record before the Board, including the pleadings, exhibits, discovery documents, and affidavits, demonstrates a clear right to judgment as a matter of law. ILL. ADM. CODE tit. 35 § 101.516(b); *Clayton Chemical Acquisition L.L.C. v. IEPA,* PCB 98-113 at 2 (March 1, 2001) (citing *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 154 Ill. 2d 90, 180

Ill. Dec. 691, 607 N.E.2d 1204 (1992)). Any opposition to summary judgment must "clearly identify disputed issues of fact," and "the opponent cannot sit quietly by but is required to raise any defenses and produce evidence tending to show a question of fact exists." *City of Quincy v. IEPA*, PCB 08-86 at 23 (June 17, 2010) (citing *Sexton Envtl. Sys., Inc. v. IEPA*, PCB 91-4, slip op. at 1 (Feb. 28, 1991) and *Warren v. Darnell*, 164 Ill. App. 3d 273, 283, 517 N.E.2d 636, 643 (Ill. App. Ct. 5th 1987)). The Board has observed that the language of ILL. ADM. CODE tit. 35 § 101.516(b) makes summary judgment mandatory where there are no genuine issues of material fact. *City of Quincy*, PCB 08-86 at 26.

There are no disputed issues of fact relevant to this motion. The appeal is on the administrative record pursuant to the Board's rules. ILL. ADM. CODE tit. 35 § 105.214(a). Accordingly, there can be no genuine factual dispute as to what analysis was performed by IEPA in reaching its decision. The issues raised in the Petition and on this motion concern, rather, whether that analysis was sufficient as a matter of law. Specifically, Petitioners contend that (i) Respondents failed to perform a reasonable potential analysis as required by the CWA and the Board regulations, (ii) that Respondents' antidegradation analysis did not meet the standard established by law and (iii) that, in violation of the CWA and Board regulations, IEPA failed to establish TBELs, or even respond to public comments showing that TBELs were necessary. While the specific conclusion IEPA could or should reach as a result of those analyses is a fact-intensive question, the issue of whether IEPA ever performed those analyses in compliance with legal standards in issuing the Permit can be determined on the record as a matter of law. Since, under ILL. ADM. CODE tit. 35 § 105.214(a), no new facts beyond the record relevant to these questions could be established at hearing, a hearing would serve no purpose.

## Argument

## Point I

### IEPA FAILED TO PERFORM AN ANALYSIS TO DETERMINE WHETHER THE PROPOSED DISCHARGE HAS REASONABLE POTENTIAL TO CAUSE OR CONTRIBUTE TO EXCEEDANCE OF WATER QUALITY STANDARDS

The CWA and Illinois law strictly prohibit discharges that make a pollution problem worse. That is, NPDES permits may not allow a permitee to discharge a pollutant to a waterbody impaired for that pollutant if the discharge would cause or contribute to the exceedance. IEPA unlawfully failed to perform the analysis necessary to ensure that the Facility's discharge associated with the ACI equipment would not cause or contribute to impairment of the Illinois River, despite evident awareness of the potential problem. IEPA has thus made a decision to allow Dynegy to transfer its pollution from the air to the water, without basis in law or fact – and in doing so exacerbate impairment of the receiving waterbody.

#### A. The CWA and Illinois Law Prohibit Discharges that Cause or Contribute to Exceedance of Water Quality Standards

The prohibition against discharges that cause or contribute to a water quality standards exceedance is found in multiple places in the Board's regulations. 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." ILL. ADMIN. CODE tit. 35 § 309.141(d)(1) (emphasis added). Similarly, ILL. ADMIN. CODE tit. 35 § 304.105 provides that "no effluent shall, alone or in combination with other sources, cause a violation of any applicable water quality standard." The Board rules also specifically require IEPA to follow substantive

federal law in writing NPDES permits, and further require that a "reasonable potential" analysis be done to identify discharges that may cause or contribute to violations of standards. *See* 33 U.S.C.A. § 1312; 40 C.F.R. § 122.44(b) (CWA water quality-based effluent limitation requirements incorporated by reference in ILL. ADMIN. CODE tit. 35 § 309.141(d)(2)); ILL. ADMIN. CODE tit. 35 § 309.143 (requirement to perform analysis to determine whether a discharge has reasonable potential to cause or contribute to an exceedance of water quality standards, and to establish limits to prevent such exceedance); *see also Alabama Dep't of Envtl. Mgmt. v. Alabama Rivers Alliance, Inc.* (*Alabama Rivers*), 14 So. 3d 853, 856 (Ala. Civ. App. 2007) (upholding determination that "if the receiving waters are in such a degraded condition that they are already in violation of state water quality standards, then [the permitting agency] cannot issue a permit that would further contribute to that violation, i.e., further degrade the receiving waters.")

Additionally, as will be discussed in Point II, with respect to any new or increased discharge triggering antidegradation analysis, IEPA is required to "assure" that "[t]he applicable numeric or narrative water quality standard will not be exceeded as a result of the proposed activity." ILL. ADMIN. CODE tit. 35 § 302.105(c)(2)(B)(i).

### B. IEPA Failed to Assure that the Facility's Discharge Would not Cause or Contribute to Exceedance of the Mercury Water Quality Standard

In issuing the Permit to Dynegy, IEPA failed to comply with these requirements to assure that water quality standards will be met. This failure is especially of concern with respect to mercury, given that the Illinois River is listed on the Agency's section 303(d) list as potentially impaired for that pollutant. Mosher Memorandum, R. 544. *See Alabama Rivers*, 14 So. 3d at 864 ("The inclusion of the [subject waterbody] on the 303(d) list is prima facie evidence of [its] impairment.") In view of that impairment, any additional discharge of mercury would of

necessity cause or contribute to that impairment, except to the extent the concentration of mercury in the effluent were lower than the concentration in the River; and an effluent concentration limit would need to be imposed that is at least equal to the numeric water quality standard for mercury. ILL. ADMIN. CODE tit. 35 §§ 302.105(c)(2)(B)(i), 309.141(d)(1). *See id.* § 302.102(b)(9) ("No mixing is allowed where the water quality standard for the constituent in question is already violated in the receiving water.")

IEPA effectively acknowledged that at least some level of increased mercury discharge to the River would occur as a result of the up to .6 pounds a day of mercury from the ACI equipment being placed in the east ash pond. The Agency's analysis stated, based on the EPRI Study, that the mercury is "expected to stay" in the bottom of the ash pond. Mosher Memorandum, R. 545, but concluded, "*Whatever low levels that are discharged from the ash pond* represent a decrease in loading to the environment," because "[t]his is mercury that otherwise would have been deposited in the Illinois River or other water bodies by air deposition." *Id.* (emphasis added)[8] In the RS, IEPA was even more straightforward about the fact that some level of new discharge would occur as a result of the discharge of pollution control waste to the east ash pond, but still disclaimed – without plausible basis – any responsibility to perform an analysis of that discharge. The RS described that increase as "minimal," but in doing so acknowledged its existence. RS at 6-8, R. 677-79. Thus, the Agency expressly and repeatedly acknowledged that some level of discharge of mercury would occur – be it a "minimal" level or "whatever low levels" or "permitted" levels that are not actually found in the permit. RS at 6-8, 13, R. 677-79, 684.

[8] The IEPA analysis also cited the *USEPA Characterization*, R. 545. The Characterization was, like the EPRI Study, a preliminary laboratory study report, which initially concluded that release of mercury from ACI residues was likely to be minimal, but ultimately formed the basis for USEPA's draft regulation proposed this year requiring zero discharge of such waste. *See infra* Point II.

What is more, on the eve of issuing the final Permit, IEPA staff acknowledged internally both their awareness of the strong potential for mercury discharge associated with the ACI equipment and their refusal nonetheless to further evaluate it in the context of the Permit renewal. Bureau of Water Chief Marsha Willhite and permit writer Bob Mosher discussed monitoring results at the Ameren Newton coal-fired power plant showing exceedances of the applicable mercury water quality standard; and Willhite noted that she "would not want us to continue to assume that no or very little mercury is being discharged if we have monitoring data in house that says differently." R. 692-93. However, rather than further investigating the matter, and evaluating data from Newton and/or coal-fired power plants in other states before issuing the Permit, they made a decision to review such data only "outside of renewal." *Id.*

Nothing elsewhere in the administrative record can be construed as complying with these requirements to assess impact on water quality and impose permit limits as necessary. USEPA provides detailed guidance for agencies to use to determine whether a discharge has a reasonable potential to exceed water quality standards, such that discharge limits are necessary. *See U.S. EPA, Technical Support Document for Water Quality-Based Toxics Control* (March 1991) (*TSD*).[9] The Agency has acknowledged its reliance on federal guidance for calculating impacts on receiving waters when it conducts reasonable potential analysis. *New Lenox*, PCB No. 04-88 at 47. But IEPA declined to make any effort to gather data necessary for this type of analysis with respect to the mercury discharge associated with the ACI, instead resorting to generalizations that the discharge would be "minimal." RS at 6-8, R. 677-79. Such non-technical descriptions are meaningless in this context, particularly with respect to a potent toxin such as

[9] Petitioners request that the Board take official notice of the TSD pursuant to ILL. ADMIN. CODE tit. 35 § 101.630, as it is within the specialized knowledge and experience of the Board. The TSD is available at http://www.epa.gov/npdes/pubs/owm0264.pdf.

mercury. Most laypeople would likely say that a few parts per million is "minimal." But because of the extreme toxicity and bioaccumulation properties of mercury, a few parts per million is several orders of magnitude higher than the water quality standards, which regulate mercury in the parts per trillion. ILL. ADMIN. CODE tit. 35 § 302.208. A proper reasonable potential analysis compares the anticipated effluent quality with the water quality standard, and this cannot be accomplished with cursory, inconclusive, and subjective assurances that the increase is not of concern.

IEPA accompanied its unexplained refusal to conduct reasonable potential analysis with a bizarre misunderstanding of the basic properties of mercury and the nature of its toxicity. As discussed in Point I.A *supra*, the Agency stated in the RS, "Mercury is strongly attracted to sediments where it can be transformed into methyl mercury by bacteria. Mercury would remain in the sediments or become methylated." RS at 13 ¶ 34, R. 684. This statement makes no sense at all, since as discussed above, methyl mercury is the form that is most toxic, and that accumulates in fish tissue.

### C. IEPA Failed to Assure that the Facility's Discharge Would not Cause or Contribute to Exceedance of the Other Applicable Water Quality Standards

As documented in Petitioners' comments, based in part on documents cited by IEPA, ACI residue contains numerous toxic contaminants in addition to mercury. The USEPA Characterization relied upon by the Agency specifically identified arsenic and selenium as constituents of ACI waste, and leachate from wet ash ponds containing it. *See* NRDC Comments at 7, R. 898.

Neither Dynegy's nor IEPA's analysis addressed these non-mercury pollutants associated with the ACI equipment. Although the Illinois River is not listed as impaired for these non-mercury pollutants, it was IEPA's responsibility to assure that increased discharge of these

pollutants does not cause any new impairment. IEPA did not even acknowledge the existence of non-mercury pollutants associated with the ACI equipment, and certainly nothing in the record shows that the Agency did anything to assure that these pollutants would not cause an exceedance of applicable standards.

## Point II

## RESPONDENTS FAILED TO PERFORM ADEQUATE ANTI DEGRADATION ANALYSIS CONCERNING THE INCREASED DISCHARGE ASSOCIATED WITH DYNEGY'S AIR POLLUTION CONTROL EQUIPMENT

Respondents' antidegradation analysis was fatally flawed. Not only did IEPA fail to provide required assurances that water quality standards would be met, as required by the regulations, but Respondents performed at best cursory analysis of feasible alternatives to Dynegy's low-tech plan to dump mercury into an ash pond system. Basically, IEPA took Dynegy's word that anything else would cost more money than Dynegy wanted to spend. By repeatedly downplaying the size and significance of the new discharge of toxic metals, and excusing the gross deficiencies in its antidegradation analysis on that basis, IEPA appears to be taking the position that it is allowed to perform quick and dirty analysis of discharges it does not subjectively view as significant, rather than the full analysis required under applicable regulations. Nothing in the law supports that approach.

### A. Respondents Did Not Adequately Address All Four Criteria That Must Be Met Before a New or Increased Discharge May Be Permitted

The antidegradation regulations require that "waters of the State whose existing quality is better than any of the established standards of this Part" – i.e., "high quality" waterbodies – "must be maintained in their present high quality, unless the lowering of water quality is necessary to accommodate important economic or social development." ILL. ADMIN. CODE tit. 35

§ 302.105(c)(1). Although the Illinois River is impaired for mercury, it exceeds water quality standards for other pollutant parameters, and hence constitutes a "high quality" waterbody as to those parameters. ILL. ADMIN. CODE tit. 35 § 302.105(c)(2)(A).

In the case of new or increased loadings of pollutants for which the receiving water is meeting standards, the antidegradation regulations require that IEPA perform a parameter-by-parameter analysis to assure that each of the following four criteria are met with respect to the proposed activity:

i) The applicable numeric or narrative water quality standard will not be exceeded as a result of the proposed activity;

ii) All existing uses will be fully protected;

iii) All technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; *and*

iv) The activity that results in an increased pollutant loading will benefit the community at large.

ILL. ADMIN. CODE tit. 35 § 102.305(c)(2)(B) (emphasis added). Petitioners agree, of course, that getting mercury out of the air benefits the public and, thus, that requirement (iv) was satisfied. That does not, however, excuse failing to assure that the other requirements are met. The four requirements are framed conjunctively ("and"), and hence must each be met independently before a permit for a new or increased discharge may be permitted.

However, as discussed in Point I, Respondents essentially ignored requirements (i) and (ii), and jumped directly to discussing alternatives to the discharge. Indeed, Respondents touched on requirements (i) and (ii) only to inappropriately conflate them with requirement (iv), with the Mosher Memorandum essentially asserting that the overall environmental benefits of the air

pollution control equipment obviated the need for further analysis of its impact on the River. R. 545 ("Whatever low levels that are discharged from the ash pond represent a decrease in loading to the environment.") Then as to (iii), as discussed in the next subsection, the Agency analysis was totally deficient.

### B. Respondents' Antidegradation Analysis Was Not Sufficiently Thorough

Even aside from the fact that it largely failed to address at all two of the four criteria for allowing a new or increased discharge under ILL. ADMIN. CODE tit. 35 § 302.105, Respondents conducted essentially no meaningful antidegradation analysis at all. Certainly, the analysis comes nowhere close to meeting the standard established by the Board.

In order to assure that a proposed new or increased discharge is necessary to accommodate important social or economic development pursuant to ILL. ADMIN. CODE tit. 35 § 302.105(c)(1), the antidegradation regulations require that the applicant provide, and the agency consider, inter alia, both characterization of the proposed load increases and an assessment of alternatives to proposed increases in pollutant loading. ILL. ADMIN. CODE tit. 35 § 302.105(f)(1). The limited discussion in both Dynegy's Application and IEPA's antidegradation analysis provided none of this information in sufficient detail to support an antidegradation determination. While the proper outcome of such analysis, if performed, would depend upon a close scrutiny of the facts and the cost of alternatives – which is why it is necessary – there is no genuine issue as to whether the analysis was performed in the manner required by law. On the face of the administrative record, it was not.

#### 1. Respondents' Antidegradation Analysis Failed to Identify and Quantify the Increased Pollutant Loading

In support of a determination of impact on water quality, the applicant is required to provide for the Agency's consideration "[i]dentification and quantification of the proposed load

increases for the applicable parameters and of the potential impacts of the proposed activity on the affected waters." ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(B). As discussed in Point I, Respondents' antidegradation analysis assumes that there will be some increased pollutant discharge from Outfall 005 associated with the ACI equipment. Yet despite acknowledging internally that discharges associated with mercury removal had exceeded water quality standards at another plant in Illinois, R. 692-94, IEPA declined to identify and quantify the pollutant parameters in the discharge and consider that information in its assessment, as required under ILL. ADMIN. CODE tit. 35 § 302.105(f), based on vague conclusory statements that the pollution increase will not likely be large enough to be of concern.

Dynegy did provide data identifying polluting constituents in scrubber residue proposed to be discharged into the east ash pond. This submission was not, however, sufficient for antidegradation characterization purposes, as it did not address waste associated with ACI equipment, which is more heavily contaminated with metals (given that it is specifically designed to remove them). *See* Antidegradation Assessment, R. 529 (acknowledging that ACI waste is the source of the anticipated 0 to .6 pounds of mercury per day being discharged to the east ash pond).

What is more, as discussed in Point I.C., the very brief discussion of the discharge to the Illinois River that Respondents did offer referenced solely mercury, and not the other polluting constituents known to be associated with scrubber and ACI waste. The Agency thus lacked a complete basis to evaluate the impact of the discharge on the Illinois River for antidegradation purposes.

Section 302.105 plainly requires more. It calls for analysis to identify *all* polluting constituents constituting a new or increased discharge. ILL. ADMIN. CODE tit. 35 §

302.105(f)(1)(B) (requiring "[i]dentification and quantification of the proposed load increases *for the applicable parameters* and of the potential impacts of the proposed activity on the affected waters.") (emphasis added) It articulates no *de minimis* exemption for any identified pollutant parameter, and does not excuse thorough antidegradation analysis requirements for discharges that the permit applicant and the Agency characterize as "minimal," or unlikely, or infrequent, or otherwise not a matter of particular concern to them.

IEPA's reliance on speculation as a basis for non-compliance with identification and quantification requirements is particularly problematic given that the stated bases for that speculation do not withstand even minimal scrutiny. The EPRI Study relied upon by both Dynegy and IEPA was not only industry-sponsored in origin, but by its own terms preliminary and inconclusive in its findings. As noted in Petitioners' Comments, the EPRI Study was based on laboratory research, not the study of actual wet ash ponds; and by its own terms was not intended to represent a final conclusion but rather "a preliminary review of a small number of samples intended to identify potential issues and guide future research." NRDC Comments at 8, R. 899 (quoting *EPRI Study*, *supra*, at v.) The USEPA Characterization referenced in the EPRI Study, from which IEPA extracted a snippet, is likewise preliminary by its own terms; moreover, it does not even address surface discharge from wet ash ponds, but rather underground leaching. *Id*. In any event, drawing the conclusion from this study that wet ash pond systems are sufficient to prevent discharge of pollution control residue was clearly inappropriate, given that this preliminary study forms part of the record for USEPA's decision this year to recommend a zero discharge standard for such waste based on use of dry handling technology. *See* Draft ELG, 78

Fed. Reg. at 34439 and 34487 (citing *USEPA 2009 Report, supra*, which in turn cites the *USEPA Characterization*).[10]

The RS failed to respond at all to Petitioners' comments concerning the preliminary nature and inapplicability of the research relied upon as an excuse to avoid compliance with the ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(B) identification and quantification requirements. It further failed to respond to Petitioners' comments documenting the presence of contaminants in addition to mercury in ACI residue. Moreover, the Agency's attempt in the RS to excuse its lack of analysis with the claim that "[m]ercury discharging in the permitted low parts per trillion range will not result in the contamination of sediments," RS at 13 ¶ 34, R. 684, makes no sense. The permit contains no such "permitted" level of mercury discharge, in the "low parts per trillion" or otherwise, as *there are no limits on mercury in the permit*. Indeed, discharge of the entire .6 pounds of mercury per day into the River would be technically legal under the Permit. Likewise, as discussed in Point I.B., the Agency proffered strange and unsupported claims that the mercury will be "transformed into methyl mercury by bacteria," *id*. – without apparent awareness that methyl mercury is actually the more toxic form of mercury that accumulates in fish tissue.[11] It further asserted, without analysis or factual support, that sediment from other sources (not named or quantified) "dilutes any low level of metals in an effluent" (again not quantified) "such that deposited sediment in rivers does not end up with metals concentrations considered 'contaminated.'" *Id*.

Finally, as discussed above, Respondents' refusal to characterize the increased waste discharge from Outfall 005 is not excused by the fact, cited by the Agency, that the air pollution

[10] *See USEPA 2009 Report, supra*, at 63; NRDC Comments at 6 n.5, R. 897.
[11] *See, e.g., In re Public Water Supplies*, R17-13 at 25 (January 3, 1975) (expert explaining that "mercury can become methylated when left in contact with bottom sediments and therefore a water quality standard must take into account the high toxicity and ease of absorption of methyl mercury in fish.")

controls creating that increased discharge are removing pollutants from the environment. While the "purpose and anticipated benefits" of the proposed activity may be considered in the overall determination of whether to allow the increased discharge under ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(C), the existence of a benefit does not create an exemption from the separate ILL. ADMIN. CODE tit. 35 § 302.105(f)(1)(B) requirement to characterize the increased loading. The Agency's position would defeat the purpose of not only the antidegradation regulations, but also requirements underlying installation of Dynegy's air pollution control equipment, as it would effectively allow operators to merely transfer pollution from air to water rather than removing it from the environment entirely.

**2. Respondents' Antidegradation Analysis Failed to Evaluate Alternatives in the Manner Required by Law**

The prohibition on any new or increased discharge that is not "necessary to accommodate important economic or social development" is at the heart of the antidegradation requirements. ILL. ADMIN. CODE tit. 35 § 302.105(c)(1). In order to ascertain whether the proposed discharge is "necessary," the antidegradation regulations state that the Agency "must … assure" that "[a]ll technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity." *Id.* § 302.105(c)(2)(B)(iii). In order to do that, applicants must supply and IEPA must consider "[a]ssessments of alternatives to proposed increases in pollutant loading . . . that result in less of a load increase, no load increase or minimal environmental degradation," including potentially "[a]dditional treatment levels, including no discharge alternatives." *Id.* § 302.105(f)(1)(D) and (f)(2).

On their face, these provisions require that the alternatives analysis include first, consideration of alternative treatment technologies to determine whether they are technically

reasonable – including, as appropriate, a zero discharge option; and second, financial analysis to determine whether those technologies are economically reasonable. Both the Board and USEPA have made clear that both of these types of analysis are required, and specified the mandatory elements of that analysis.

The Board held in its extensive discussion of antidegradation analysis requirements in *New Lenox* that the evaluation of treatment technology alternatives must be broad and thorough. Citing applicable federal guidance, the Board stated:

> The Board notes that USEPA Region 8's guidance on antidegradation implementation, which was part of the record considered by the Board in adopting the antidegradation rules, addresses the issue of evaluation of alternatives to lowering water quality. *This guidance sets forth that alternatives analysis must include substantive information pertaining to costs and environmental impacts associated with the alternatives considered for evaluation.* Further, USEPA guidance sets forth that alternatives analysis must address pollution prevention measures, reduction of scale of the project, water recycling or reuse, process change, *innovative treatment technology, advanced treatment technology,* seasonal discharge options, improved operation and maintenance, and alternative discharge locations.
>
> While all alternatives may not be applicable to a specific project, the Board believes that *those alternatives that are technically feasible must be considered for evaluation.*

*New Lenox*, PCB 04-88 at 35 (emphasis added). In addition to the Region 8 guidance, the Board also cited USEPA's Water Quality Standards Handbook, *id*. at 33, which provides further specificity concerning the required evaluation of alternative treatment technologies. The Handbook states antidegradation review must provide:

> assurance that the highest statutory and regulatory requirements for point sources, *including new source performance standards, and best management practices for nonpoint source pollutant controls are achieved* (this requirement ensures that the limited provision for lowering water quality of high-quality waters down to "fishable/swimmable" levels will not be used to undercut the Clean Water Act requirements for point source and Nonpoint source pollution control; furthermore, by ensuring compliance with such statutory and regulatory controls, there is less

> chance that a lowering of water quality will be sought to accommodate new economic and social development).

USEPA, *Water Quality Standards Handbook*, ch. 4 at 6 (EPA-823-B-12-002) (2d ed. March 2012)[12] (emphasis added) (*Handbook*); *see* NRDC Comments at 3-4, R. 894-95. The Handbook thus defines applicable new source performance standards (NSPS) as a benchmark for assessing whether a particular alternative control technology is technically and economically reasonable.

Additionally, the Board made clear in *New Lenox* that to the extent available pollution controls do not interfere with the proposed project, then the antidegradation inquiry is over, since the lowering of water quality is not "necessary" in that instance. It stated, citing USEPA Interim Economic Guidance for water quality standards,

> When performing an antidegradation review, the first question is whether the pollution controls needed to maintain the high-quality water will interfere with the proposed development. If not, then the lowering of water quality is not warranted. If, on the other hand, the pollution controls will interfere with development, then the review must show that the development would be an important economic and social one.

*New Lenox*, PCB 04-88 at 33 (citing USEPA, *Policy & Guidance: Interim Economic Guidance for Water Quality Standards*, ch. 5 para. 5) (*USEPA Economic Guidance*).[13] The Board then described, again citing USEPA's Economic Guidance, the extensive economic analysis that must be performed to determine whether such interference will occur. *New Lenox*, PCB 04-88 at 34. Petitioners quoted these analytical requirements from the Economic Guidance in their Comments, as follows:

> The following sections describe the steps involved in performing an economic impact analysis as part of an antidegradation review. These steps are outlined in Figure 5-1. The analytic approach presented here can be used for a variety of public-sector and private-sector entities, including POTWs, commercial, industrial, residential and recreational land uses, and for point and nonpoint sources of pollution. The guidance provided in this chapter, however, is not meant

[12] *Available at* http://water.epa.gov/scitech/swguidance/standards/handbook/.
[13] *Available at* http://water.epa.gov/scitech/swguidance/standards/economics/chaptr5.cfm.

> to be exhaustive. The State and/or EPA may require additional information or tests. In addition, the applicant should feel free to include any additional information they feel is relevant. The steps described in further detail in the rest of the chapter are:
>
> - **Verify Project Costs and Calculate the Annual Cost of the Pollution Control Project** - This section describes the factors considered when verifying that the proposed pollution control project is the most appropriate solution and the type of information that should be provided about the proposed project. It discusses how to annualize capital costs of the project and calculate total annual costs of the pollution control project.
> - **Determine if Requirements Would Interfere with Development (i.e., lower water quality is "necessary") -** This section describes the types of financial tests that should be used to determine if maintaining the high quality water would interfere with the development.
> - **Determine if Economic and Social Development Would be Important** - This section presents factors to be considered in determining whether the development would be important from an economic and social point of view.

NRDC Comments at 13, R. 904 (quoting *USEPA Economic Guidance*, *supra*).

It is clear from the record that IEPA essentially adopted Dynegy's cursory analysis wholesale, and none of the required steps were taken to assess alternatives so as to determine whether the proposed new discharge to the Illinois River is "necessary to accommodate important economic or social development" pursuant to ILL. ADMIN. CODE tit. 35 § 302.105(c)(1).

Specifically, as discussed *supra*, the alternatives analysis proffered by Dynegy to USEPA consisted in its entirety of the following:

> The mercury, adsorbed onto the activated carbon, cannot be segregated from the SDA residue and, therefore, must be disposed of with the SDA residue.
>
> Disposal of SDA residue on-site is environmentally acceptable, when compared to disposal off-site. Also, on-site disposal would reduce costs and possible adverse impacts, associated with transportation.
>
> It should be noted that the east ash pond system is lined.
>
> Other treatment or disposal alternatives, that would offer technical or economic advantages, do not exist.

Antidegradation Assessment, R. 532. IEPA's entire alternatives analysis, based on that submission, was as follows:

> Disposal of the mercury containing sorbent with the fly ash is necessary given that the mercury sorbent is mixed in with the other ash. Converting the power plant to a dry ash handling system is an alternative that was considered by the applicant. However, the existing lined East ash pond system has considerable useful life remaining as an ash storage facility. Dynegy estimates that several years of capacity remains to accept sluiced ash. Abandoning this considerable existing investment is not a reasonable alternative. When the ash pond system becomes full, Dynegy will consider the alternatives for ash disposal available at that future time and dry ash landfilling will be a topic of discussion. Therefore, no feasible alternatives exist for the changes proposed.

Mosher Memorandum, R. 546.

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

First, the one alternative even superficially considered – dry ash landfilling – is dismissed based on economic considerations without even providing a cost estimate or any other gesture toward the analyses described in *New Lenox* and the USEPA Economic Guidance it cites. Essentially, the "analysis" of dry ash landfilling provided by both Respondents amounts to a statement that Dynegy does not wish to pay for it. The only discussion of environmental impacts is Dynegy's unsupported, and ambiguous, one-sentence conclusion that "[d]isposal of SDA residue on-site is environmentally acceptable, when compared to disposal off-site." Antidegradation Assessment, R. 532.

No argument is even proffered – nor could it be – that dry ash landfilling is not feasible or "technically . . . reasonable" per ILL. ADMIN. CODE tit. 35 § 302.105(c)(2)(B)(iii). Indeed, IEPA acknowledges that dry ash landfilling is a viable option in suggesting that it be evaluated

after Dynegy's wet ash ponds are full. Moreover, a standard of zero discharge – achievable through dry ash landfilling, since it does not involve water – is the current NSPS for fly ash transport water (i.e., the mix of fly ash and pollution control residue and water in Dynegy's ash ponds). 40 C.F.R. § 423.15(g). In view of USEPA's position in the Handbook that antidegradation analysis must provide "assurance that the highest statutory and regulatory requirements for point sources, including new source performance standards" are met, *Handbook*, *supra*, ch. 4 at 6, dry ash landfilling should for that reason alone have been selected as a means to eliminate the increased loading.[14]

Petitioners note, in addition, that the analysis neglects to address at all USEPA's conclusion (recently reiterated in its proposed coal plant Draft ELG)[15] that wet ash pond systems are not an effective means of preventing discharge of pollutants from fly ash, and that many better means exist. *See* Hanlon Memo, *supra*, Attachment A (*cited in* NRDC Comments at 6-7, R. 897-98); *USEPA 2009 Report*, *supra*, ch. 4 (*cited in* NRDC Comments at 6 n.5, R. 897); NRDC Comments at 6, 11-12, R. 897, 902-3. The Hanlon Memo makes clear that discharge of air pollutant removal waste into settling ponds is neither the only nor the best method of controlling this waste stream. It states:

> Historically, power plants have relied on settling ponds to treat FGD wastewater because NPDES permits generally focused on controlling suspended solids for this waste stream. In recent years, physical/chemical treatment systems and other more advanced systems have become more widely employed as effluent limits for metals and other pollutants have been included in permits. . . . For metals present in both soluble and particulate forms (such as mercury), the settling pond will not effectively remove the dissolved fraction. Technologies more advanced than settling ponds are available and more effective at removing both soluble and

[14] In this regard, Petitioners note that USEPA's Draft ELG, which recommends a zero discharge standard as BAT for existing sources, is based in part on results of a national survey of coal-fired power plants that employ mercury control technologies including ACI showing that more than 90 percent currently use dry ash handling technology. Draft ELG, 78 Fed. Reg. at 34450; *see infra* Point III.

[15] *See supra* Point II.B.1 and *infra* Point III.

> particulate forms of metals, and for removing other pollutants such as nitrogen compounds and total dissolved solids.

Hanlon Memo, *supra*, Attachment A at 3 (*quoted in* NRDC Comments at 11, R. 902).

Moreover, Dynegy's statement that "[t]he mercury, adsorbed onto the activated carbon, cannot be segregated from the SDA residue" is, as Petitioners pointed out in comments, wrong in view of the clear description in Attachment A of methods to achieve precisely that:

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

*Id*. at 3-4 (*quoted in* NRDC Comments at 12, R. 903).

In the RS, IEPA did not respond to any of these substantive concerns regarding the substantive sufficiency of the alternatives analysis. Rather, it attempted to deflect those concerns with a contention that an analysis of alternatives to the existing ash pond system was not required (even though both Dynegy and IEPA evidently thought it was throughout the permitting process) given that the increased discharge is not being generated by a new facility or change in ash handling procedures. It stated,

> The Havana Plant has always used ash ponds as a means of ash disposal. The changes occurring at the plant resulting in an antidegradation assessment arose because of a new system of air emissions controls and other relatively minor changes in wastewater management. An antidegradation analysis of the existing ash handling system is thus not required under 35 Ill. Adm. Code 302.105. If the plant was starting anew or was proposing a major change in ash handling, the comparison of wet ash handling vs. dry would have been required.

RS at 8 ¶ 12, R. 679. Antidegradation, however, is designed to address new pollution loadings, not just new treatment systems. Nothing in ILL. ADMIN. CODE tit. 35 § 302.105 remotely suggests the novel limitation on the scope of antidegradation requirements claimed by IEPA here.

Antidegradation requirements are triggered by *any* "proposed increase in pollutant loading that necessitates a new, renewed, or modified NPDES permit." ILL. ADMIN. CODE tit. 35 § 302.105(c)(2). It does *not* specify that the *source* of that loading has to be a new or modified facility. Dynegy and IEPA clearly reached the right conclusion in the first instance that antidegradation alternatives analysis requirements apply. To the extent a technically or economically reasonable alternative to the discharge exists that renders the increased loading unnecessary, that alternative must be implemented. *Id*. § 302.105(c)(2)(B)(iii).

## Point III

## IEPA FAILED TO COMPLY WITH REQUIREMENTS TO ESTABLISH A TECHOLOGY-BASED EFFLUENT LIMIT BASED ON BEST AVAILABLE TECHNOLOGY

The CWA contains a clear requirement that NPDES permits include TBELs based on BAT for toxic pollutants, such as the metals contained in scrubber and ACI-related wastewater. Where USEPA has not issued a final ELG addressing those pollutants for the industry at issue, the permitting agency must conduct BPJ analysis to determine a numeric TBEL on a case-by-case basis, and the permit applicant is required to provide sufficient information to enable that analysis.

That requirement was wholly disregarded here, and no TBEL was included in the Permit for mercury or any of the other toxic pollutants associated with Dynegy's new proposed discharge. As pointed out by Petitioners, the 1982 ELG for the electric generating industry does not cover scrubber and ACI waste. The existence of the 2013 Draft ELG for the industry covering these pollutants in no way diminishes the requirement to do a proper case-by-case analysis, since it has not been made final; and, more importantly, it recommends zero discharge for the scrubber and ACI waste stream at issue here – i.e., the dry ash landfilling alternative that

IEPA rejected out of hand in the antidegradation alternatives analysis. Thus, as a matter of law – and regardless of the actual state of the technology available to control scrubber and ACI waste streams – Respondents have failed to comply with CWA TBEL requirements.

What is more, IEPA completely disregarded Petitioners' extensive arguments in their comments concerning the TBEL requirement, saying not a word about the issue in the RS. This failure to respond violated explicit requirements in the Illinois Act that IEPA respond to public comments.

### A. The Clean Water Act Required BPJ Analysis to Establish a TBEL for the Proposed Discharge of Toxic Scrubber and ACI Waste Based on BAT

Sections 301 and 402 of the CWA, 33 U.S.C.A. §§ 1311 and 1342 – with which IEPA is required to comply in issuing permits – unambiguously require establishment of TBELs for any anticipated toxic contaminant discharges before issuing any NPDES permit that authorizes such discharges. *See* 33 U.S.C.A. § 1311(b)(2)(A)(i) (point sources "shall" achieve "effluent limitations" that "shall require application of" BAT to reduce pollutant discharges to the maximum extent "technologically and economically achievable," including "elimination of discharges of all pollutants" if it is achievable); *id.*§ 1342(a)(1) (requiring that NPDES permits only be issued "upon condition that" they ensure that, inter alia, the requirements in 33 U.S.C. § 1311 are met); ILL. ADMIN. CODE tit. 35 § 309.141(a) (requiring compliance with CWA § 301); *See Ky. Waterways Alliance v. Energy and Env't Cabinet* (*Ky. Waterways Alliance*), No. 11-C1-1613 (Franklin Cnty. Cir. Ct. Sept. 10, 2013) (Kentucky court remanding NPDES permit for failure to conduct BPJ analysis to establish a BAT-based TBEL for scrubber wastewater) (attached to this Mem. as "Attachment 1").

Federal regulations promulgated by USEPA also require that "[t]echnology-based treatment requirements under section 301(b) of the [CWA] represent the minimum level of

control that *must be imposed*" in a NPDES permit. 40 C.F.R. § 125.3(a) (emphasis added). These requirements are the cornerstone of the Act, which "predicate[s] pollution control on the application of control technology" to individual dischargers, rather than on the water-quality-based standards that proved inadequate to control water pollution under predecessor statutes.[16] *Hooker Chems. & Plastics Corp. v. Train*, 537 F.2d 620, 623 (2d Cir. 1976).

BAT has been held to represent "a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges." *EPA v. Nat'l Crushed Stone Ass'n*, 449 U.S. 64, 74 (1980).[17] It is meant to set the bar at the best pollution removal results achieved within a particular industry. *Chem. Mfrs. Ass'n v. EPA*, 870 F.2d 177, 239 (5th Cir. 1989) (best available technology limits should be based on the "single best-performing plant in an industrial field"); *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985) ("In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible.") It reflects Congress' intent "to use the latest scientific research and technology in setting effluent limits, pushing industries toward the goal of zero discharge [of water pollution] as quickly as possible." *Kennecott*, 780 F.2d at 448. TBELs are "technology-forcing," meant "not only to stimulate but to press development of new, more efficient and effective technologies" for controlling pollution. *NRDC v. EPA*, 822 F.2d 104, 123-24 (D.C. Cir. 1987) (internal citations omitted).

[16] Under the Clean Water Act, water-quality-based limits accordingly may supplement, but cannot replace, technology-based limits. 33 U.S.C.A. § 1312(a); 40 C.F.R. § 125.3(a); *PUD No. 1 Jefferson Cnty v. Wash. Dep't of Ecology*, 511 U.S. 700, 704 (1994).

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

USEPA has established generally-applicable TBEL limits for many industries in ELGs. However, where it has not done so, USEPA regulations require IEPA to use BPJ to set BAT limits for these discharges on a case-by-case basis. 40 C.F.R. § 125.3(c)(2), (d) ("to the extent that EPA-promulgated effluent limitations are inapplicable," NPDES permit writers "*shall apply* the appropriate factors listed in § 125.3(d)" to set case-by-case technology-based effluent limitations based on BPJ) (emphasis added).[18]

Although USEPA established an ELG for the electric generating industry, which was last updated in 1982, that ELG expressly did *not* address wastewater from pollution control equipment such as scrubbers and ACIs. *Id*. § 423.15. This section establishes standards for pH, total suspended solids, and oil and grease, but expressly *excludes* from regulation mercury, selenium, and arsenic, three of the primary toxic pollutants associated with scrubber and ACI waste. Steam Electric Power Generating Point Source ELGs and Standards, 47 Fed. Reg. 52290, 52303 (Nov. 19, 1982). *See* Hanlon Memo, *supra*, Appendix A at 3 (*cited in* NRDC Comments at 6-7, R. 897-98) ("the 1982 rulemaking did not establish best available control technology economically achievable (BAT) limits for FGD wastewaters because EPA lacked the data necessary to characterize pollutant loadings from these systems"). USEPA confirmed in its Draft ELG issued in June 2013, "The current [ELG] regulations, which were last updated in 1982, do not adequately address the toxic pollutants discharged from the electric power industry, nor have they kept pace with process changes that have occurred over the last three decades." Draft ELG, 78 Fed. Reg. at 34435. As the court held in *Ky. Waterways Alliance*, the exclusion of toxic pollutants in the 1982 version of the ELG "indicates only that those pollutants named in

[18] The use of the word "shall" in both the federal statute and regulations does not leave IEPA with any discretion as to whether technology-based effluent limitations should be established. *See Bennett v. Spear*, 520 U.S. 154, 172, 175 (1997) (the imperative "shall" makes clear that the agency action specified is obligatory, not discretionary); *see also Alabama v. Bozeman*, 533 U.S. 146, 153 (2001) ("The word 'shall' is ordinarily the language of command.") (internal quotation and citation omitted).

Appendix A of the ELG were undetectable to the Administrator at that time, more than *thirty* years ago." *Ky. Waterways Alliance*, No. 11-C1-1613, slip op. at 9 (emphasis in original). Accordingly, NPDES permit writers are obligated to establish TBELs for toxic pollutants in scrubber and ACI wastewater based on case-by-case BPJ analysis.

**B. The Pendency of the Draft ELG is Not a Basis to Delay Establishment of a TBEL Based on BAT**

As the court held in *Ky. Waterways Alliance*, an analogous challenge to an agency's failure to include a BAT/BPJ-based TBEL in a NPDES permit, the pendency of the Draft ELG does not excuse permitting agencies from their obligation to set case-by-case TBELs. The court noted that its ruling "may be superseded by a forthcoming EPA ruling applicable to scrubber wastewater," but concluded, "this does not relieve the [agency] from complying with its obligations under the Clean Water Act." *Ky. Waterways Alliance*, No. 11-C1-1613, slip op. at 14.

Instead of implicitly relying on the fact that the Draft ELG is not yet final to ignore the requirement that it set TBELs, IEPA should have reviewed the factual research by USEPA reflected in the Draft ELG (which had been developed at the point the Permit was issued)[19] showing that settling ponds are antiquated and ineffective technology; and that zero discharge of pollution control waste is an achievable and appropriate standard. The Draft ELG documents that out of 120 plants with ACI or other flue gas mercury control (FGMC) systems surveyed, "[a]pproximately 90 percent of the currently operating FGMC systems are dry systems that do not generate or affect any wastewater streams." Draft ELG, 78 Fed. Reg. at 34450. Its preferred alternatives therefore recommend zero discharge for such systems. *Id*. at 34435-36.

[19] *See* Draft ELG, 78 Fed. Reg. at 34442 (survey on which Draft ELG conclusions were based conducted in 2010 concerning calendar year 2009).

### C. IEPA Failed to Comply with CWA Requirements to Establish TBELs for Toxic Scrubber and ACI Pollutants Based on BPJ

IEPA made no reference to BAT requirements or effort to establish a TBEL for the toxic metals discharge from Outfall 005 associated with the scrubber and ACI waste. Dynegy likewise made no reference to BPJ BAT analysis requirements in its permit application, and included no data or analysis to support a case-by-case BPJ determination, in violation of CWA application requirements.

The antidegradation analysis by Dynegy and IEPA, inadequate for antidegradation purposes as explained *supra* in Point II.B., does not come close to meeting CWA BPJ BAT analysis requirements. USEPA regulations expressly require that such analysis consider "the age of equipment and facilities involved," "the process employed," "engineering aspects of the application of various types of control techniques," "process changes," "the cost of achieving such effluent reduction," "non-water quality environmental impact (including energy requirements)," and "any unique factors relating to the applicant." 40 C.F.R. § 125.3(c)(2), (d)(3). To facilitate such analysis, an application for permission to commence a new discharge at an existing facility must provide information about the "[e]xpected treatment of [the] wastewater," *id.* § 122.21(k)(3), the anticipated "effluent characteristics," including "estimated daily maximum, daily average, and source of information" for a range of pollutants and parameters, *id.* § 122.21(k)(5), and "the existence of any technical evaluation concerning his wastewater treatment, along with the name and location of similar plants of which he has knowledge," *id.* § 122.21(k)(6).

None of this was done, by either Dynegy or IEPA – even if one were to take Respondents' antidegradation analysis and use it as a loose proxy for BPJ BAT analysis (which is not, in any event, actually allowed under the CWA). As explained in Point II.B., while Dynegy

provided – and IEPA reiterated – information concerning the contaminants in scrubber waste, neither of them characterized the anticipated flow of contaminants associated with scrubber and ACI waste from Outfall 005, except to say vaguely they would "generally" be "relatively small" or "minimal" and "unlikely" to pose a problem, based on a preliminary industry laboratory study. *See* Antidegradation Assessment, R. 531; Mosher Memorandum, R. 545; RS at 6-8, R. 677-79. The analysis of the one alternative considered, dry handling (i.e., the current NSPS and the Draft ELG preferred zero discharge alternative), acknowledged the technical feasibility of that alternative by suggesting that it could be implemented as soon as the currently used wet ash ponds were full. The Application and IEPA analysis considered only discharge of mercury to the Illinois River, not arsenic, selenium, or any of the other toxic substances associated with scrubbers and ACI equipment. The Application and analysis also failed to consider USEPA's conclusion that wet ash ponds are inadequate to prevent release of toxic metals from scrubber and ACI systems to the environment, and declined to consider more advanced treatment technologies based on the demonstrably wrong premise that metals cannot be removed from wastewater associated with scrubber and ACI residue. *See supra* Point II.B (citing Hanlon Memo regarding available technologies to remove metals from wastewater).

Upon receiving an application containing none of the information required for BPJ case-by-case analysis, IEPA was obligated to reject Dynegy's application as incomplete. Instead, it recited the few shreds of information provided in the Application and approved the discharge.

It does not matter that there may be questions of fact concerning what technology constitutes BAT for the proposed new discharge – indeed, there almost certainly are, which is why case-by-case BPJ analysis is needed. As there can be no dispute that IEPA did not perform

such an analysis, or require Dynegy to provide the necessary information for it, the Permit should be remanded to IEPA with orders that it does so.

In this regard, although the factual basis for a TBEL is a question that IEPA must evaluate on remand, Petitioners note that the fact that the pollution control equipment was not yet up and running at the time the Permit was issued does not excuse failure to establish a TBEL. USEPA Region 4 recently rejected an argument that setting numeric effluent limitations for FGD wastewater is infeasible before the FGD comes online in two recent EPA letters commenting on NPDES permits for coal plants in Tennessee. *See* Letter from Christopher B. Thomas, Chief, Pollution Control and Implementation Branch, Water Protection Division, EPA Region 4, to Paul E. Davis, Tennessee Department of Environmental Protection, regarding NPDES permit for Kingston Fossil Plant (Aug. 8, 2011) (*cited* and *incorporated in* NRDC Comments at 16-18 and Attachment 1 respectively, R. 907-09, 913-16) (Kingston NPDES Letter); Letter from Christopher B. Thomas, Chief, Pollution Control and Implementation Branch, Water Protection Division, USEPA Region 4, to Paul E. Davis, Tennessee Department of Environmental Protection, regarding NPDES permit for Gallatin Fossil Plant (Aug. 11, 2011) (*incorporated in* NRDC Comments as Attachment 2, R. 918-20). In both cases the state permitting agency had determined that setting TBELs for coal plant pollution control waste was infeasible based on lack of data, and in both cases USEPA disagreed. *See, e.g.*, Kingston NPDES Letter, R. 915 ("The EPA believes that there is available, existing effluent data . . . to make informed judgments regarding appropriate TBELs. Even with limited data, the EPA's view is that it is feasible to calculate TBELs. The EPA's Appeals Board has supported this interpretation in several decisions.") The Kingston NPDES Letter recommends that "monitoring only requirements for metals . . . be replaced with technology-based effluent limits (TBELs). . . ." R. 913. The letters

also state that if a permitting agency determines that existing treatment technologies represent the best available technology, then TBELs should be set based on the ability of that system to reduce pollutant discharges. R. 915, 918-19.

In addition, USEPA Region 1 recently proposed numeric effluent limitations for coal plant discharges in a draft permit for Public Service of New Hampshire's Merrimack Station in Bow, NH without any monitoring data specific to the plant itself. *See* NRDC Comments at 17, R. 908 (citing USEPA Region 1, *Determination of Technology-Based Effluent Limits for the Flue Gas Desulfurization of Wastewater at Merrimack Station in Bow, New Hampshire* 31 (Sept. 23, 2011) (*Merrimac Station TBEL Determination*)[20] (noting that "[n]either Merrimack Station's wet FGD scrubber system nor its proposed FGD WWTP is yet operational" and thus that "EPA does not have actual data for characterizing the untreated FGD purge from Merrimack Station operations.") In developing the proposed numeric effluent limitations for the plant, USEPA used multiple sources, including the analyses of two other plants that used the same treatment system, to set numeric limits for arsenic, chromium, copper, mercury, selenium and zinc in the FGD scrubber wastewater. *Merrimac Station TBEL Determination*, *supra*, at 30-49 (*cited in* NRDC Comments at 17, R. 908).

As USEPA has done, so too must IEPA use "all available information," including USEPA guidance, as well as permits and data for other facilities, in order to "carry out the provisions of the [CWA]" by establishing numeric effluent limitations based on BAT to control discharges of pollutants from the Facility's east ash pond. 40 C.F.R. § 125.3(c)(2)(i), (c)(3); *see also* 33 U.S.C.A. § 1311(b)(2)(A)(i).

[20] The *Merrimac Station TBEL Determination* was incorporated by reference in Petitioners' Comments, with a web link provided. NRDC Comments at 17 n.18, R. 908.

### D. IEPA's Failure to Respond to Petitioners' Comments Concerning the Lack of BPJ Case-By-Case Analysis to Establish a TBEL Violated Public Participation Requirements

The regulations governing IEPA permit hearing procedures require that the Agency acknowledge and address the substance of all public comments it receives. Specifically, ILL. ADMIN. CODE tit. 35 § 166.192(4), (5) requires that IEPA provide "[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"; and "[t]he Agency's specific response to all significant comments, criticisms, and suggestions."

The NRDC Comments extensively address the TBEL requirement, devoting one of two sections of its post-hearing comments to explaining the issue in depth, including the underlying law and the information required to be submitted and considered. *See* NRDC Comments at 14-20, R. 905-11. IEPA ignored the issue entirely in its RS. This failure to acknowledge and respond violated the requirements of ILL. ADMIN. CODE tit. 35 § 166.192. For all of the reasons explained above, the Agency must perform the required BPJ analysis and establish the necessary TBELs, and then respond to Petitioners' comments with an explanation of what it has done. But even if the Board declines to order this, IEPA must, at minimum, respond on remand concerning the TBELs issue.

## Conclusion

It is good that mercury and other pollutants are to be taken out of the air, but little or nothing is achieved if they are then thrown in the water. Accordingly, for the foregoing reasons, Petitioners request that their motion for summary judgment be granted, and that the Permit be remanded to IEPA with instructions that it require Dynegy to submit a complete application, and that it conduct all analyses required under the Clean Water Act.

Respectfully submitted this 18th day of December, 2013 by:

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# ATTACHMENT 1

**COMMONWEALTH OF KENTUCKY**
**FRANKLIN CIRCUIT COURT**
**DIVISION I**
**CIVIL ACTION No. 11-CI-1613**

**KENTUCKY WATERWAYS ALLIANCE, SIERRA CLUB, VALLEY WATCH, and SAVE THE VALLEY** — **PETITIONER**

**v.** — **OPINION & ORDER**

**ENERGY AND ENVIRONMENT CABINET, LOUISVLILE GAS AND ELECTRIC COMPANY** — **RESPONDENT**

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This matter is before the Court on Petitioners' Petition for Judicial Review of a final administrative action. Petitioners challenge the validity of the Kentucky Pollutant Discharge Elimination System (hereinafter "KPDES") Permit No. KY0041971 issued by the Kentucky Division of Water to LG&E for its Trimble County Generating Station. This matter was initially filed in Trimble County, but was transferred to Franklin Circuit Court November 2, 2011. Both parties have fully briefed the merits of the case, and all parties were represented at a hearing held April 11, 2013. The Court then took this matter under submission, and hereby **REVERSES** the Cabinet Secretary's Order entered December 1, 2010, for reasons explained in full below.

## I. BACKGROUND

Intervening Respondent Louisville Gas and Electric Company (hereinafter "LG&E") operates a coal-fired power plant in Trimble County, Kentucky. The Trimble County Generating Station (hereinafter the "Trimble Station") has been in operation since 1990, and currently includes two units. The Trimble Station utilizes flue gas desulfurization devices to reduce sulfur emissions at the plant, commonly referred to as "wet scrubbers." This wet scrubbing process creates wastewater then pumped into gypsum storage basins where some pollutants settle out of

the water before the wastewater is discharged into the Ohio River via a submerged diffuser. Unit 1 is the older of the two units, and the KPDES permit for Unit 1 needed to be renewed after wastewater handling changed with the addition of Unit 2. In April 2007 LG&E submitted a KPDES permit application for the Trimble Station. At that time Unit 2 was under construction, anticipated to be operable by 2010. Petitioners actively participated in the permitting process, submitting public comments and appearing at a public hearing held November 5, 2009. The Kentucky Division of Water (hereinafter "KDOW") issued a final KPDES permit to LG&E for the Trimble Station, permit no. KY0041971, effective April 1, 2010.

Petitioners appealed the KDOW decision to issue a final KPDES permit for the Trimble Station. Specifically, Petitioners (in paragraph 9 of their administrative complaint) asserted:

a. The permit fails to comply with the Clean Water Act requirements for the flue gas desulfurization wastewater discharge;

b. The permit fails to control all discharges from the ash pond;

c. The permit allows illegal high temperature discharges;

d. The permit is otherwise contrary to law or fact.

(Hearing Officer's Report, p. 1). Petitioners claimed that the Trimble Station discharge permit failed to reflect the "Best Professional Judgment" (hereinafter "BJP") and the "Best Available Technology Economically Achievable" (hereinafter "BAT") standards required by the Clean Water Act. *See* 33 U.S.C. § 1311(b)(2); 401 K.A.R. 5:065(2),(5); 401 K.A.R. 5:080; 40 C.F.R. § 423.13; 33 U.S.C. § 1342(a)(1)(B); 401 K.A.R. 5:065. On September 23, 2010 the hearing officer entered an Order granting the Respondents' Motion for Partial Summary Disposition as to Petitioners' claim asserted in paragraph 9(a). (A.R., Docket No. 52) The hearing officer found that the KDOW *may* within their discretion conduct a case-by-case BPJ analysis, but that the

regulations do not *require* such analysis in this circumstance. The hearing officer further determined that the expert testimony and evidence presented by Petitioners revealed only that different technologies existed for reduction of mass loadings of pollutants in flue gas desulfurization wastewater, and that such technologies could have been considered. The Order stated that Petitioners, "cannot demonstrate a genuine issue of material facts as to whether the technologies they advocate are feasible at the Trimble Station, much less how the regulatory factors should have otherwise been weighed, and thus cannot establish that the conclusion or determination made by DOW on this issue was in error." (Id. at 7). Thus, the hearing officer dismissed Petitioners' claim 9(a), and Petitioners also voluntarily withdrew claims asserted in Paragraph 9(c) and 9(d). (A.R., Docket No. 53, 71). After discussing settlement on the day of the hearing Petitioners withdrew remaining claims in paragraph 9(b) with prejudice, on the condition that Respondents not seek costs or attorney's fees in connection with the administrative proceeding. (A.R., Docket No. 71, p. 2). Petitioners also filed a Motion to Reconsider Order Granting Partial Summary Disposition, asserting that the hearing officer incorrectly found that the BPJ duty is discretionary. Petitioners also requested an extension of the hearing schedule to allow for the hearing officer to reconsider his partial summary disposition. The Secretary granted Petitioners' Motion to withdraw claims asserted in paragraph 9(b), (c), and (d) and adopted the hearing officer's report and Recommendation and Order Granting Motion for Partial Summary Disposition. (A.R., Docket No. 73).

A Petition for Judicial Review in this matter was initially filed in Trimble County, but later was transferred to Franklin Circuit Court on jurisdictional grounds. *See* KRS 224.10-470(1). On July 5, 2012 this Court entered an Order denying Respondents' motion to set aside

the transfer and dismiss the petition for review,[1] and the parties then addressed the substantive merits of this action.

Petitioners argue that the Cabinet justified its decision on two erroneous premises: (1) that the Cabinet could rely on EPA effluent limitation guidelines issued thirty years ago to bypass having to set site-specific technology based limits on scrubber waste, even though scrubber waste was expressly excluded from the guidelines; and (2) that the Cabinet did in fact undertake a BPJ analysis and determined settling ponds to satisfy BAT for treatment of the Trimble scrubber wastewater, despite witnesses' contradictory testimony.[2]

A 1982 EPA Effluent Limitation Guideline (hereinafter "guideline" or "ELG") included national effluent limits for "low volume wastes." The 1982 guidelines specifically named four conventional pollutants- total suspended solids, pH, oil, and grease. Other toxic pollutants were "excluded" from regulation as they are "present in amounts too small to be effectively reduced by technologies known to the Administrator." 47 Fed. Reg. 52, 290-51, 291 (Nov. 19, 1982). The EPA in fact is currently in the process of updating guidelines addressing scrubber wastewater.[3] In 2009 the EPA issued a detailed public study of power plant discharges, concluding that scrubber wastes contain high concentrations of metals; that settling ponds do not effectively limit the discharge of these metals; and that the industry has developed effective

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[1] KRS 452.105 mandates that a court without proper venue must transfer a case to a court where venue is proper. "Where venue is improper, the remedy is transfer rather than dismissal." Dollar General Stores, Ltd. V. Smith, 237 S.W.3d 162, 166 (Ky. 2007). Thus the Court held that the "Trimble Circuit Court had subject matter jurisdiction, and all necessary authority to transfer the case to Franklin Circuit, the required venue."

[2] Petitioners cite: "the Cabinet does not set Best Professional Judgment limits for scrubber waste streams" (A.R., Docket No. 66, Sowder Depo. at 80); "There are no limits for metals on scrubber discharge." (A.R., Docket No. 56, Beard Depo. at 111); the Cabinet's permit writer, Sarah Beard, testified that she did not consider all available treatment options, did not review documents related to treatment options she did consider, and did not have or request cost information about treatment options. (Id.)

[3] This Court understands that the EPA is proposing to amend the effluent limitations guidelines and standards for the steam electric power generating category. A proposed rule was published on June 7, 2013.

technologies to control these discharges. (A.R., Docket No. 34, Ex. 5 to Petitioners' Response Brief). This study states that:

> Settling ponds are not designed to reduce the amount of dissolved metals in the wastewater. The [flue gas desulfurization] wastewater entering a treatment system contains significant amounts of several pollutants in the dissolved phase, including boron, manganese, and selenium. These dissolved metals are likely discharged largely untreated from [flue gas desulfurization] wastewater settling ponds.

(Id. at 4-26). This EPA study also names chemical and biological treatments, constructed wetlands, and zero discharge systems as available wastewater treatment options. (Id. at 4-26 to 4-40). In the meantime, and until new guidelines for scrubber wastewater are in place, the EPA has issued a guidance memo to assist states in conducting BPJ analysis (hereinafter "Hanlon Memo").[4] (A.R., Docket No. 50). Respondents' own expert, William Kennedy, confirmed that chemical treatment systems are currently used at other coal fired power plants, and that there is no reason why this technology cannot be implemented at the Trimble plant. (A.R., Docket No. 56, pp. 173-74).

Petitioners assert that no BPJ analysis was performed, and alternatively that even if the Court were to accept Respondents' assertion that such analysis was performed, the Cabinet's determination to use a settling pond was arbitrary as this is not the industry's leading control equipment. *Citing* Chem. Mfgs. Ass'n v. EPA, 870 F.2d 177, 226 (5th Cir. 1989). Petitioners claim that the Cabinet erroneously concluded that all pollutants discharged in the Trimble scrubber wastewater were subject to the 1982 EPA Effluent Limitation Guideline, and failed to conduct any meaningful BJP analysis on the scrubber wastewater. Petitioners ask that this matter be remanded to the Cabinet with instructions to conduct a BPJ analysis, to include

[4] Respondents assert that the Hanlon Memo was not considered by the Cabinet and should not be considered by this Court. The hearing officer ruled that the Hanlon Memo be excluded from evidence.

consideration of all potential treatment options and costs, and impose a technology-based limit with sufficient monitoring of wastewater discharges.

The Cabinet asserts that because the 1982 ELG applied, it was properly within the agency's discretion to not conduct any case-by-case BPJ analysis. Alternatively, Respondents contend that were the court to determine that a BPJ analysis was mandatory, the Cabinet did in fact effectively perform such analysis. The Cabinet notes that it is entitled to substantial deference as to these matters, and that the evidence and testimony presented by Petitioners does not prove the Secretary's decision was arbitrary. The Cabinet also notes that the EPA is set to take final action to establish standards for the pollutants at issue in this matter by May, 2014, and that was considered by the permit writer as a "unique factor" per 40 CFR § 125.3(c)(2). A hearing was held April 11, 2013, and thereafter the Court took this matter under submission.

## II. STANDARD OF REVIEW

In reviewing an administrative decision, the Court's role "is not to reinterpret or reconsider the merits of the claim." Kentucky Unemployment Insurance Commission v. King, 657 S.W.2d 250, 251 (Ky. App. 1983). In reviewing an agency decision, this Court may only overturn that decision if the agency acted arbitrarily or outside the scope of its authority, if the agency applied an incorrect rule of law, or if the decision itself is not supported by substantial evidence of record. As such, as long as there is substantial evidence in the record to support the Cabinet's determinations with regard to the Permit, we must defer to the Cabinet, even if there is conflicting evidence. Kentucky State Racing Comm'n v. Fuller, 481 S.W.2d 298, 308 (Ky. 1972). Substantial evidence "means evidence of substance and relevant consequence having the fitness to induce conviction in the minds of reasonable men." Kentucky Retirement Systems v. Bowens, 281 S.W.3d 776, 780 (Ky. 2009) (internal citations omitted). If it finds that the

agency's decision is supported by substantial evidence, an appellate court must then determine whether the agency applied the correct rule of law. This Court reviews an agency's conclusions of law *de novo*, mindful of the fact that "agencies are entitled to great deference in interpreting their own statutes and regulations, at least where those interpretations do not contravene the law." Morgan v. Natural Resource and Environmental Protection Cabinet, 6 S.W.3d 833, 842 (Ky. App. 1999).

## III. DISCUSSION

### 1. The Clean Water Act clearly provides that where no Effluent Limitation Guideline has been established, the Cabinet is required to set effluent limits on a case-by-case basis using Best Professional Judgment

The Clean Water Act requires the Cabinet to set technology based effluent limits for the discharge of pollutants. These "technology-based treatment requirements under section 301(b) of the Act represent the *minimum* level of control that must be imposed in a permit issued under section 402 of the Act." 33 U.S.C. §§ 1314(b), 1342(a); 40 CFR § 125.3(a); 401 KAR 5:080 § 2(3) (emphasis added). However, the EPA establishes national effluent guidelines for particular pollutants discharged at certain categories of industry dischargers, thus relieving the agency from conducting these case-by-case determinations. 40 C.F.R. § 423.15; *see also* 33 U.S.C. § 1342(a)(1)(B). EPA regulations clearly state that "[w]here promulgated effluent limitations guidelines only apply to certain aspects of a discharger's permit operations, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis." 40 C.F.R. §125.3(c)(3). *See also* 40 C.F.R. § 125.3(c)(2) (case-by-case determinations are required, "to the extent that EPA-promulgated effluent limitations are inapplicable.").

Where no effluent limitations guidelines apply for a certain pollutant otherwise subject to the BAT standard, the regulations direct the permit writer to consider the following when setting effluent limits based on BAT (for NSPS facilities):

(i) The age of equipment and facilities involved;
(ii) The process employed;
(iii) The engineering aspects of the application of various types of control techniques;
(iv) Process changes;
(v) The cost of achieving such effluent reduction;
(vi) Non-water quality environmental impact (including energy requirements);
(vii) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and
(vii) Any unique factors relating to the applicant.

40 CFR § 125.3 (c)(2)(i-ii); 40 CFR § 125.3(d)(3)(i-vi); *see also* Chem. Mfgrs. Ass'n v. EPA, 870 F.2d 177, 226 (5th Cir. 1989) ("Congress intended these [BAT] limitations to be based on the performance of the single best-performing plant in the industrial field.")). These listed factors represent the necessary considerations for the agency to conduct a BJP analysis. The Court finds the law to be clear, and further corroborated by the EPA's 2010 Guidance Memo, stating:

> Where EPA has not promulgated technology-based effluent guidelines for a particular class or category of industrial dischargers, or where the technology-based effluent guidelines do not address all wastestreams or pollutants discharged by the industrial discharger, EPA must establish technology-based effluent limitations on a case-by-case basis in individual NPDES permits, based on its best professional judgment or 'BPJ.'

(A.R., Docket No. 50, Attachment A, pp. 1-2)[5] The Clean Water Act clearly provides where the EPA has not established an ELG, the Cabinet is required to set effluent limits using BPJ analysis.

[5] The Hearing Officer excluded this 2010 Memo from consideration at the administrative level, noting that this Guidance Memo was released in 2010- after the permit process had concluded. The Court finds that the Guidance Memo is relevant and should not have been excluded from consideration. The 2010 Memo does not represent some new policy enacted after the permit was issued, but rather offers guidance as to how the EPA interpreted the regulations and statutes in existence at the time the permit was issued. Furthermore, the 2010 Memo's directives are wholly consistent with the plain meaning and reasonable interpretation of the statues and regulations.

**2. The EPA's 1982 Effluent Limitation Guidelines Do Not Establish Any Technology-Based Limits on the Discharge of the Toxic Pollutants in Scrubber Waste**

The 1982 Guidelines for steam electric power generating point sources identifies wet air scrubber pollution control systems as a "low volume waste," but establishes no NSPS standard for the dissolved metals and other scrubber wastewater pollutants of concern to Petitioners. Respondents assert that no BPJ analysis is required because NSPS included standards for the "wet scrubber wastewater," included in the definition of "low volume waste." 40 CFR § 423.11(b). However, 40 CFR § 423.15 established standards for pH, total suspended solids ("TSS"), oil, and grease only- no standards are established for any of the scrubber wastewater pollutants of concern to Petitioners. The Court finds Respondents' logic to be deficient given the language of 40 C.F.R. §125.3(c)(3). [6]

Arsenic, mercury, and selenium are three of many pollutants found in scrubber wastewater, explicitly "excluded" from the 1983 ELG. "Toxic pollutants are *excluded from* national regulation because they are present in amounts too small to be effectively reduced by technologies known to the Administrator." 47 Fed. Reg. 224, 52303 (Nov. 19, 1982)(emphasis added). The dissolved metals at issue here are plainly not "subject to" the 1982 ELG- they were *excluded from* the ELG. Id. The Court finds that this language cannot be read as a determination that no ELG was necessary for these toxic pollutants thenceforth. Rather, this language indicates only that those pollutants named in Appendix A of the ELG were undetectable to the Administrator at that time, more than *thirty* years ago. The hearing officer's determined that "the Trimble [flue gas desulfurization] … wastewater is subject to an applicable [ELG]," then citing

[6] "Where promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Act."

the EPA Permit Writer's Manual's instruction that "BJP-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." (A.R., Docket No. 27, Permit Writer's Manual, pp. 69-70). The Court finds this determination arbitrary. The hearing officer incorrectly concluded that scrubber wastewater pollutants at issue here were "considered" for regulation- they were explicitly "excluded" due to insufficient technology some *thirty* years ago. The hearing officer was mistaken in stating that "ELGs represent EPA's determination as to the appropriate level of pollution control ... for *all* sources within a particular source category." (A.R., Docket No. 52, Hearing Officer's Order, p. 3).This is plainly incorrect, as the EPA did recently confirm:

> The Steam Electric Power Generating effluent limitations guidelines and standards promulgated in 1982 include wastewater from wet FGD systems under the "catch-all" category of "low-volume wastes." 40 C.F.R. 423.11(b). However, the 1982 rulemaking *did not establish best available control technology economically achievable (BAT) limits for FGD wastewaters because EPA lacked the data necessary to characterize pollutant loadings from these systems.* See the Development Document3 for the 1982 effluent guidelines at p. 248 (noting that "[a]dditional studies will be needed to provide this data and to confirm the current discharge practices in the industry"). Accordingly, EPA determined that BAT limits for the FGD wastestream were outside the scope of the rulemaking, and explicitly reserved the development of such limits for a future rulemaking. See the Federal Register preamble for the 1982 effluent guidelines, 47 Fed. Reg. at 52291 (Nov. 19, 1982); Development Document at pp. 3, 7.

(A.R., Docket No. 50, Attachment A, p. 3) (emphasis added) (hereinafter "Hanlon Memo"). In 2010 the EPA signed a consent decree with Defenders of Wildlife to update effluent guidelines for coal-fired power plants by 2014. Defenders of Wildlife v. Jackson, No. 1:10-CV001915RWR (D.D.C., Mar. 18, 2012). An EPA "fact sheet" detailing the proposed Effluent Limitation Guidelines and standards states,

> The current effluent guidelines and standards for the steam electric power industry, which were last updated in 1982, *do not adequately address the associated toxic metals*

> *discharged to surface waters from facilities in this industry*. The current effluent limitations guidelines and standards are focused on settling out particulates rather than treating dissolved pollutants.

EPA, *Proposed Effluent Limitation Guidelines & Standards for Steam Electric Power Generating Industry* (April, 2013) (emphasis added). The Court finds that the EPA did not consider the scrubber waste pollutants at issue here, determining that no ELG was necessary. By the language quoted *supra*, it is clear to this Court that in 1982, some *thirty* years ago, these pollutants were not detectable with then-existing technologies and the EPA was thus forced to "exclude" them from the ELG.

Scrubber wastewater pollutants including selenium, arsenic, and mercury have all been identified by the EPA as toxic pollutants. As the EPA recently recognized,

> Steam electric power plants currently account for more than half of all toxic pollutants discharged into streams, rivers and lakes from permitted industrial facilities in the United States. High exposure to these types of pollutants has been linked to neurological damage and cancer as well as damage to the circulatory system, kidneys and liver. Toxic heavy metals do not break down in the environment and can also contaminate sediment in waterways and impact aquatic life and wildlife, including large-scale die-offs of fish.

EPA, *EPA Proposes to Reduce Toxic Pollutants Discharged into Waterways by Power Plants*, 2013 News Release (April 19, 2013). While the EPA's efforts to establish ELGs for scrubber wastewater pollutants are recent, the deleterious effects of scrubber wastewater pollutants are old news. Based on the foregoing, the Court finds it implausible that in 1982 the EPA concluded that setting technology based limits for these toxic pollutants was unnecessary and, by the relevant language published in the Federal Register, meant to totally suspend all efforts to decrease discharge of these pollutants. This interpretation advanced by Respondents is discordant with the plain language of the statutes and regulations.

Furthermore, the hearing officer's interpretation is wholly inconsistent with the technology-forcing framework of the Clean Water Act, enacted to "restore and maintain the

chemical, physical, and biological integrity of the Nation's waters," and establishing a "national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." Fed. Water Pollution Control Act, 33 U.S.C. § 1251(a). The Court finds it contradictory that the EPA, aiming to eliminate discharge of pollutants by 1985, would in 1982 establish a guideline recognizing the many toxic pollutants found in scrubber wastewater but intending to freeze all efforts to reduce discharge of these pollutants indefinitely, pending new regulation. The Hanlon Memo clearly provides that this was not the intent- scrubber wastewater pollutants were "outside the scope of the rulemaking." The 1982 ELG only applied to certain pollutants discharged at the Trimble Station- those being TSS, oil, and grease. 40 CFR § 423.15; 40 C.F.R. Pt. 423, App. A. "the [Clean Water Act] establishes a series of steps which impose progressively stricter standards until the final elimination of all pollutant discharges is achieved" Comm. For Consideration of Jones Falls Sewage System v. Train, 539 F.2d 1006, 1108 (C.A.Md., 1976). "States issuing permits pursuant to § 1342(b) stand in the shoes of the agency, and thus must similarly pay heed to § 1311(b)'s technology-based standards when exercising their BPJ. Thus, notwithstanding Industry's contrary assertions, States are required to compel adherence to the Act's technology-based standards regardless of whether EPA has specified their content pursuant to § 1314(b)." Natural Resources Defense Council, Inc. v. U.S.E.P.A., 859 F.2d 156, 183 (C.A.D.C., 1988). The Court finds that the Cabinet was required to conduct a BPJ analysis of the scrubber wastewater before issuing a permit to Respondent LG&E, and that such analysis is not discretionary as characterized by the Cabinet.

**3. The Cabinet Failed to Conduct a BPJ Analysis for Treatment of the Scrubber Wastewater as the Regulations Require**

The Court finds the Respondents' alternative assertion that a BPJ analysis was in fact completed to be unsupported by the record. The hearing officer's Order Granting Partial Summary Disposition stated, "this order agrees that it would have properly been within DOW's discretion to not conduct a case-by-case BPJ limits in the Permit for the Trimble FGD wastewater since that wastewater is subject to an applicable ELG." (A.R., Docket No. 52, p. 3). Further the Order states, "DOW was entitled to opt instead to apply only the NSPS requirements for low volume wastes." (Id.). Given the review of the Clean Water Act and regulations detailed *supra*, the Court finds the hearing officer's interpretation of the law inaccurate. It was the Cabinet's duty to conduct a BPJ analysis, and the Cabinet failed to do so. 33 U.S.C. § 1311; 40 C.F.R. § 125.3; 401 KAR 5:080.

Despite the hearing officer's assertion that the regulations do not mandate that a BPJ analysis be performed for scrubber wastewater pollutants, there is some discussion in the hearing officer's Order Granting Partial Summary Judgment indicating that the DOW did consider alternative treatment technologies, the costs effectiveness of these technologies, as well as other "unique factors." (Id. at 5). The Court finds that the Cabinet's analysis, even if it was undertaken as part of a BPJ analysis, to be insufficient.[7] Ms. Beard, the permit writer for the Trimble Station permit, testified that, aside from reverse osmosis, she did not consider any other control technologies, and that she considered no alternative technology cost information. (A.R., Docket No. 29, ¶ 10; A.R., Docket No. 25, p. 5). Specifically the permit writer testified, "I didn't look into the other technologies as in terms of practicality or expense." (A.R., Docket No. 56, p. 167).

[7] The question of substantial evidence aside, the Court finds that the hearing officer mischaracterized the burden. The hearing officer cited the Sierra Club's lack of expert evidence on specific portions of the BPJ analysis as "fatal to their case." (A.R., Docket No. 52, p. 7). Petitioners assert, and this Court agrees, that it is not Petitioners' burden conduct a BPJ analysis. This mischaracterization is telling, but not dispositive.

Further, the permit writer testified that she did not know how much the Trimble Station's gypsum settling ponds would cost, nor how much LG&E was to spend on effluent treatment technology at the Trimble Station. (A.R., Docket No. 56, p. 167-168). Although Ms. Beard by affidavit stated that she did "consider the extent of the pollutant reduction that had been adequately demonstrated over time," this vague assertion is contradicted by her own deposition testimony, and is unsupported by the record. (A.R., Docket No. 29, ¶ 10). Furthermore, Trimble's own expert Mr. William Kennedy did testify that chemical treatment technologies for scrubber wastewater were being employed elsewhere and had been for decades, and that this treatment technology could be used at the Trimble plant. ( A.R., Docket No. 65, pp. 173-175). Based on the foregoing the Court finds that the record does not support a finding that the Cabinet performed a BJP analysis on scrubber wastewater discharged from the Trimble Station.

## IV. CONCLUSION

The Cabinet was required, and failed, to conduct a BJP analysis for scrubber wastewater at the Trimble Station. The Court recognizes that this ruling may be superseded by a forthcoming EPA ruling applicable to scrubber wastewater. Nevertheless, this does not relieve the Cabinet from complying with its obligations under the Clean Water Act. The Court being sufficiently advised hereby **REVERSES** the Cabinet's Order Granting Partial Summary Disposition, and **REMANDS** this matter for further proceedings herewith. This is a final and appealable order, and there is no just cause for delay.

**SO ORDERED** this the 10th day of September, 2013.

Phillip Shepherd
Judge, Franklin Circuit Court

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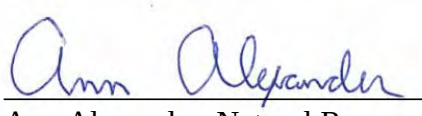
CERTIFICATE OF SERVICE

I, Ann Alexander, the undersigned attorney, hereby certify that I have served via electronic mail the attached **Petitioners' Motion for Summary Judgment** and **Memorandum of Law in Support of Petitioners' Motion for Summary Judgment** upon the persons listed in the foregoing Notice of Filing, by depositing said documents in the United States Mail, postage prepaid, from 20 North Wacker Drive, Suite 1600, Chicago, IL 60606, before the hour of 5:00 p.m., on this 18th day of December, 2013.



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