ILLINOIS POLLUTION CONTROL BOARD
April 7, 2016

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| SIERRA CLUB, NATURAL RESOURCES DEFENSE COUNCIL, PRARIE RIVERS NETWORK, and ENVIRONMENTAL LAW & POLICY CENTER, | ) | |
| Petitioners, | ) | |
| v. | ) | PCB 15-189 (Third-Party NPDES Permit Appeal – Water) |
| ILLINOIS ENVIRONMENTAL PROTECTION AGENCY and MIDWEST GENERATION, LLC, | ) | |
| Respondents. | ) | |

OPINION AND ORDER OF THE BOARD (by G.M. Keenan):

Coal-fired electricity generating units use water to cool and condense the exhaust steam from a unit's turbine. Most coal plants built before 1970 withdraw cooling water from a nearby surface water source and discharge that water, then heated, back into the source. This "open-loop" or "once-through" cooling water intake and thermal effluent discharge can harm aquatic life.[1] To manage this potential for harm, the federal Clean Water Act ("CWA") requires that permits issued under the National Pollutant Discharge Elimination System ("NPDES") program contain conditions concerning both intake and discharge of cooling water.[2]

Two coal-fired generating units, both built before 1970, currently operate at the Waukegan Generating Station in Waukegan, Lake County (the "Facility").[3] Like others of its vintage, the Facility uses open-loop cooling, drawing water from and discharging thermal effluent into Lake Michigan. On January 21, 2005, Midwest Generation LLC, ("Midwest Gen"),

[1] Energy Demands on Water Resources, Report to Congress on the Interdependency of Energy and Water at 18-19, U.S. Department of Energy (Dec. 6, 2006), *available at* http://energy.sandia.gov/download/36375/ (last accessed Mar. 28, 2016).

[2] *See* 33 U.S.C. §§ 1326(a), (b) (2014). The Clean Water Act is officially titled the Federal Water Pollution Control Act. The U.S. Environmental Protection Agency delegated NPDES permitting permits in Illinois to the Illinois Environmental Protection Agency. NPDES Memorandum of Agreement (May 12, 1977) with Addendum (May 24, 2000), *available at* https://www.epa.gov/sites/production/files/2013-09/documents/il-moa-npdes.pdf (last accessed Mar. 28, 2016).

[3] A third coal-fired generating unit recently ceased operating; several oil-fired generating units continue operating.

the Facility's owner, applied to renew its NPDES permit. On March 25, 2015, the Illinois Environmental Protection Agency ("IEPA") granted a renewed permit with conditions concerning the Facility's cooling water intake and heated effluent discharge.

On April 29, 2015, the Sierra Club, Natural Resources Defense Council, Prairie Rivers Network, and Environmental Law & Policy Center (collectively, "Environmental Groups" or "Petitioners") petitioned the Board for review of these conditions. They argued that the permit's contested conditions, as issued by IEPA, violated state and federal law. After IEPA submitted the administrative record for its decision, the Environmental Groups moved for summary judgment. In turn, IEPA and Midwest Gen (collectively, "Respondents") each filed cross-motions for summary judgment, asking the Board to find that the Environmental Groups did not show that the permit issued by IEPA violated the law.

This order denies in part all three motions because there remain genuine issues of material fact. Although all parties have filed cross-motions for summary judgment, that "does not establish that there is no genuine issue of material fact, nor does it obligate the Board to render summary judgment." Prairie Rivers Network v. IPCB, 2016 IL App. (1st) 150971 at ¶ 24 (Feb. 26, 2016). Even after Board review of the administrative record, issues of fact remain concerning the Facility's cooling water intake and discharge mechanisms, the environmental impact of water intake and discharge, and the current state of wildlife in Lake Michigan, among other issues. To address these issues of fact, the Board directs the Hearing Officer to set this matter for hearing.

This order makes findings on three legal issues. First, the Environmental Groups have standing to bring both counts in their petition. Next, the procedural rules concerning alternative thermal effluent limitations that the Board adopted in 2014 applied to IEPA's decision to issue the permit. Last, the permit must contain conditions that require the Facility's cooling water intake structure to use the interim best technology available. These findings do not rely on disputed material facts.

After addressing these legal issues, two remain. First, did the permit, as issued, comply with the applicable Board regulations on alternative thermal effluent limitations? Second, do the permit's conditions require that the Facility's cooling water intake structure use the interim best technology available? The Board cannot decide these matters until issues of material fact are resolved after a hearing.

The order begins by providing background on undisputed facts, applicable laws, and the procedural history of the Facility's NPDES permits and this appeal. The order then discusses procedural issues concerning summary judgment and the burden of proof. Next, the order discusses substantive issues concerning the alternative thermal effluent limitation and the cooling water intake structure. Finally, the order reaches its conclusion and directs the Hearing Officer to proceed to hearing.

## BACKGROUND

### Undisputed Facts

Withdrawal and discharge of cooling water in an open-loop system can harm aquatic life. Thermal effluent discharges raise the temperature of a body of water, which can affect food availability and ecosystem dynamics.[4] Higher temperatures can also alter the structure of aquatic communities and decrease the amount of dissolved oxygen in the water, among other potential effects. R. 0477. Intake of cooling water can trap aquatic life against external facility equipment—impingement—or can draw aquatic life into the facility itself—entrainment. Impingement and entrainment can injure or kill aquatic life.[5]

The Facility operates an open-loop cooling system to condense steam exhaust from its two coal-fired generating units.[6] The Facility's NPDES permit, numbered IL0002259, regulates the cooling system's water intake and discharge. R. 0687. The cooling system is designed to intake up to 900 million gallons of water per day and, on average, the Facility discharges 739 million gallons of effluent per day. *Id*.

Under the Board's general thermal effluent limitations, Lake Michigan's temperature shall not exceed 80° F in the summer and 45° F in the winter. 35 Ill. Adm. Code 302.507. Under its permit, the Facility may discharge heated effluent into the Lake at temperatures up to 95.8° F in the summer and 118.5° F in the winter. R. 0042. As of 1971, the Facility's thermal effluent discharge affects water temperatures several thousand feet away from the Facility into Lake Michigan.[7]

### Statutes and Regulations

#### Alternative Thermal Effluent Limitations

The Federal Clean Water Act created the NPDES program, which regulates the Facility's cooling water system. Board regulations generally prohibit thermal discharges that cause the water temperature in Lake Michigan to rise more than 3° F above natural temperatures. 35 Ill.

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[4] R. 0477. (Environmental Law & Policy Center ("ELPC") comment on 2013 draft permit, *citing* Great Lakes Commission, "Integrating Energy and Water Resources Decision Making in the Great Lakes Basin" (Oct. 2011), *available at* http://glc.org/files/docs/2011-integrating-energy-water-resources-decision.pdf (last accessed Mar. 29, 2016)). Citations to the administrative record are abbreviated throughout the order as R. __.

[5] R. 1134 (ELPC letter to IEPA on 2011 draft permit, *citing* John R.M. Kelso and Gary S. Milburn, 5 J. Great Lakes Research 182 (1979)).

[6] R. 0661 (IEPA Responsiveness Summary Regarding July 31, 2013 Hearing at 6 (Mar. 25, 2015)).

[7] R. 0476-77 (March 11, 2013 ELPC Letter, *citing* A.A. Frigo and D.E. Frye, "Physical Measurements of Thermal Discharges into Lake Michigan: 1971").

Adm. Code 302.507. However, § 316(a) of the Clean Water Act allows for an alternative thermal effluent limitation. A permittee may receive an alternative limitation if the general limitation is "more stringent than necessary to assure the [protection] and propagation of a balanced, indigenous population of shellfish, fish, and wildlife." 33 U.S.C. § 1326(a).

Until recently, the Board granted alternative thermal effluent limitations under Section 304.141 of its regulations. The regulations stated that the general limitations on thermal effluent in Board regulations apply unless, after public notice and hearing, "in accordance with Section 316 of the CWA and applicable federal regulations, the Administrator and the Board have determined that different standards shall apply to a particular thermal discharge."[8]

In 2014, the Board adopted new procedures concerning alternative thermal effluent limitations under § 316(a) of the Clean Water Act.[9] The new Subpart K to Part 106 of the Board's procedural rules "describes the factors, criteria, and standards for the establishment of alternative thermal effluent limitations." 35 Ill. Adm. Code 106.1100. Additionally, Subpart K sets forth procedures for renewing an alternative thermal effluent limitation.

Echoing the CWA, Subpart K allows the IEPA to renew an alternative thermal effluent limitation previously granted by the Board if "the permittee demonstrates that the nature of the thermal discharge has not changed and the alternative thermal effluent limitation granted by the Board has not caused appreciable harm to a balanced, indigenous population of shellfish, fish, and wildlife . . . ." 35 Ill. Adm. Code 106.1180(c). Subpart K prohibits IEPA from including an alternative thermal effluent limitation if the nature of the thermal discharge has materially changed or if the limitation has caused appreciable harm. 35 Ill. Adm. Code 106.1180(d).

**Cooling Water Intake Structures**

Section 316(b) of the CWA requires that the location, design, construction, and capacity of cooling water intake structures at certain facilities "reflect the best technology available for minimizing adverse environmental impact." 33 U.S.C. § 1326(b). Section 316(b) has long existed, but the U.S. Environmental Protection Agency ("USEPA") only recently promulgated a regulation to implement its provisions. USEPA promulgated this regulation in 2014 (the "316(b) Rule," codified at 40 C.F.R. Parts 122, 125).

The 316(b) Rule defines specific options for the "best technology available" for existing cooling water intake structures. 79 Fed. Reg. 48,300 (Aug. 15, 2014). For instance, a permit writer could require an existing facility to use a closed-cycle recirculating system, reduce water intake velocity, or a combination of technologies. 40 C.F.R. § 125.94(c).

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[8] 35 Ill. Adm. Code 304.141(c) (2012). This regulation was previously codified as Board Rule 401(c).

[9] In the Matter of: Procedural Rules for Alternative Thermal Effluent Limitations Under Section 316(a) of the Clean Water Act: Proposed New 35 Ill. Adm. Code Part 106, Subpart K and Amended Section 304.141(c), R13-20 (Feb. 20, 2014) (final order adopting amendments).

Under this rule, delegated state agencies must use their "best professional judgment" to decide among the listed options for NPDES permit holders to minimize adverse environmental impact.[10] Before USEPA promulgated the 316(b) Rule, they had not defined the "best technology available."[11] Instead, USEPA instructed permit writers to use "best professional judgment" to determine how each facility should minimize environmental impact.[12]

## Procedural History

### The Board's 1978 Alternative Thermal Effluent Limitation

In 1977, one of the Facility's previous owners petitioned the Board for an alternative thermal effluent limitation. The Board granted that petition on August 3, 1978.[13] At hearing in that proceeding, the Facility's owner proffered witnesses who testified that the thermal effluent did "virtually no damage" to Lake Michigan. Waukegan, PCB 77-82, slip op. at 2. No other testimony was given at the hearing, but a citizen group objected to "the absence of opinions of recognized independent experts on Lake Michigan." *Id*. The Board found that "environmental damage to the Lake is minimal" and noted that the owner "promised to continue studying possible damaging effects on the Lake in the future." *Id*.

### Subsequent NPDES Permits

IEPA issued several NPDES permits after 1978, each with an alternative limitation based on the Board's order. *See* IEPA Mot. for S.J. at 15. Before renewing the permit in 2015, IEPA had most recently issued a renewed permit on July 19, 2000. R. 0109. This permit expired on July 31, 2005. Midwest Gen applied to renew the 2000 permit on January 25, 2005. R. 0025. Since then, the 2000 permit has been administratively continued while IEPA considered the renewal application. *See* 35 Ill. Adm. Code 309.104(a).

On December 2, 2011, IEPA issued a draft permit for the Facility. R. 0171. The 2011 draft permit did not contain an alternative thermal effluent limitation. Instead, it required that the Facility comply with the Board's general thermal effluent standards for Lake Michigan. R. 0185. Another condition in the 2011 draft permit required Midwest Gen to submit information relating to the Facility's cooling water intake structure, but did not require Midwest Gen to install new equipment. R. 0185-86. Both the Environmental Groups and Midwest Gen

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[10] 40 C.F.R. § 125.94(c) (options to minimize impingement mortality), § 125.94(d) (options to minimize entrainment mortality).

[11] USEPA previous efforts to promulgate a rule interpreting § 316(b) were overturned in litigation. *See* 79 Fed. Reg. 48,300, 48,314-315 (Aug. 15, 2014).

[12] R. 0144. Letter from Benjamin Grumbles, USEPA Assistant Administrator, to USEPA Regional Administrators regarding "Implementation of the Decision in *Riverkeeper, Inc. v. EPA*, Remanding the Cooling Water Intake Structures Phase II Regulation" (Mar. 20, 2007).

[13] In the Matter of: Proposed Determination of Thermal Standards for Zion and Waukegan Generating Stations, PCB 77-82 (Aug. 3, 1978).

commented on the 2011 draft permit. Among other issues, the Environmental Groups' comments addressed thermal effluent and the cooling water intake structure. R. 1132-46. Midwest Gen's comments requested that IEPA reinstate the alternative thermal effluent limitation that had been present in prior permits, among other issues. R. 201-07.

On February 8, 2013, IEPA issued a second draft permit. The 2013 draft permit contained the alternative thermal effluent limitation absent from the 2011 draft permit. R. 0264. The 2013 draft permit still required Midwest Gen to submit information about the Facility's cooling water intake structure. R. 0265. Like prior permits, the thermal effluent condition references a prior Board decision.[14] The Environmental Groups again commented on the thermal effluent and cooling water intake conditions in the 2013 draft permit. R. 0472. They also commented at a public hearing on July 31, 2013 and submitted post-hearing comments. R. 0705-0843, 0995-98.

IEPA issued the Facility's final NPDES permit on March 25, 2015. R. 0687-0703. IEPA did not substantively alter the thermal effluent condition or cooling water intake structure condition from the 2013 draft permit. R. 0695-96. In IEPA's Responsiveness Summary, it responded to questions about continuing the thermal discharge condition. R. 0662. The responsiveness summary also addresses the cooling water intake condition. R. 0696-97.

**Present Appeal**

The Environmental Groups petitioned the Board for review of the NPDES permit (Pet.) on April 29, 2015. The Board accepted it for hearing on May 7, 2015. The petition challenged IEPA's decision to grant the Facility an alternative thermal effluent limitation. Pet. at 3-6. Furthermore, they argued that IEPA lacked information necessary to determine that the Facility's cooling water intake structure uses the best technology available to minimize adverse environmental impact. Pet. at 6-7.

IEPA filed the administrative record for its decision on June 26, 2015 and supplemented the record on August 7, 2015. The Environmental Groups filed a motion for summary judgment (Pet'rs Mot. for S.J.) on October 22, 2015. IEPA and Midwest Gen both filed cross-motions for summary judgment and responses to the Environmental Groups' motion (IEPA Mot. for S.J., MWGen Mot. for S.J.) on December 10, 2015. The Environmental Groups filed a reply to the responses and a response to the cross-motions for summary judgment (Pet'rs Reply) on January 21, 2016. IEPA and Midwest Gen filed their replies to the Environmental Groups' response (IEPA Reply, MWGen Reply) on February 25, 2016.

## DISCUSSION

### Genuine Issues of Material Fact Preclude Complete Summary Judgment

[14] The 2013 draft permit references "PCB 72-73 Consolidated, dated September 21, 1978," (R. 0264), as did the 2015 final permit (R. 0695). This September, 21 1978 Board order found that the Facility's thermal discharges have not caused significant ecological damage. But the alternative limitation was granted by Waukegan, PCB 77-82 (Aug. 3, 1978).

The Board may only grant summary judgment in a permit appeal when there is no genuine issue of material fact. 35 Ill. Admin. Code 101.516(b). All parties agreed in their motions for summary judgment that no genuine issue of material fact exists. But agreement of the parties alone "does not establish that there is no issue of material fact, nor does it obligate the Board to render summary judgment." Prairie Rivers Network, 2016 IL App. (1st) 150971 at ¶ 24.

Genuine issues of material fact exist in the administrative record. These issues of fact concern whether the permit as issued by IEPA complied with applicable statutes and regulations. In particular, with respect to the alternative thermal effluent limitation, there are factual issues as to whether the nature of the thermal discharge has materially changed and whether an appreciable harm to a balanced, indigenous population of shellfish, fish, and wildlife exists. With respect to the cooling water intake structure, the reliability of dated information is at issue, as described below.

Though these genuine issues of material fact preclude the Board from granting complete summary judgment, the Board may grant partial summary judgment to resolve preliminary legal issues. The Board may partially grant and partially deny a motion for summary judgment when some legal issues do not depend on disputed facts. *See* People v. D'Angelo Enterprises, Inc., PCB 97-66 (Nov. 19, 1998). So this order grants in part and denies in part each party's motion for summary judgment.

This order grants summary judgment on three legal issues. First, the Environmental Groups' motion on standing is granted. The Board also grants the Environmental Groups' motion to apply alternative thermal effluent limitation renewal rules that the Board adopted in 2014. Last, the Board grants the Respondents' motion to apply interim best technology available requirements to the permit's cooling water intake structure condition. These findings do not rely on disputed material facts.

The Board otherwise denies the Environmental Groups' and Respondents' motions. Specifically, this order does not decide whether the permit's alternative thermal effluent limitation condition complied with the applicable Board regulations. Additionally, this order does not decide whether the permit's cooling water intake requirements ensure that the structure meets the interim best technology available standard. The Board cannot decide these matters until issues of material fact are resolved after a hearing.

First, this order analyzes whether the Environmental Groups have standing to bring their appeal. Next, the Board establishes the burden of proof that the petitioner must meet. The Board then analyzes issues concerning the alternative thermal effluent limitation. Last, the Board analyzes issues concerning the cooling water intake structure.

## Standing

### The Respondents Argue That the Environmental Groups Lack Standing

The Environmental Protection Act (the "Act") grants the Board jurisdiction to hear a third-party challenge to a permit. 415 ILCS 5/40(e)(1) (2014). However, the Act qualifies this jurisdiction: a petition to challenge a permit must show that the third-party "raised the issues contained within the petition during the [permit's] public notice period or during the public hearing . . . ." 415 ILCS 5/40(e)(2) (2014). If a third-party meets this and other requirements, then it has standing to bring a permit appeal. IEPA and Midwest Gen argue that the Environmental Groups failed to meet this requirement. MWGen Mot. for S.J. at 21-23; IEPA Mot. for S.J. at 18-19.

In their motion for summary judgment, the Environmental Groups argued that they also have standing under Article XI, § 2 of the Illinois Constitution. Pet'rs Mot. for S.J. at 12-13. The motion did not discuss standing under the Act, prompting Midwest Gen to argue that the Environmental Groups abandoned statutory standing. Instead, Midwest Gen argued that the Environmental Groups rely entirely on the constitutional standing. MWGen Mot. for S.J. at 21-23. The Environmental Groups reprised their arguments for statutory standing in their reply brief. Pet'rs Reply at 2-6. IEPA also challenged the Environmental Groups' standing. IEPA Mot. for S.J. at 18-19.

### The Environmental Groups Raised Their Issues During Public Comment

The Respondents argue that the Environmental Groups raised arguments in their petition that they did not raise during the public notice period or at hearing. *E.g.*, MWGen Reply at 4-8, IEPA Mot. for S.J. 18-19. Though the Environmental Groups criticized the draft permit conditions concerning the Facility's cooling water system,[15] the Respondents argue that the Environmental Groups now assert new legal arguments that they did not mention during comment and therefore cannot raise on appeal.[16]

The Environmental Groups argue that the Act does not require third-party petitioners to assert specific legal theories during the public comment period. Instead, the Act requires petitioners to raise the broad set of issues during public comment. Pet'rs Reply at 3. The Environmental Groups raised general concerns with the cooling water system's intake and discharges during public comment, so the Board may consider related legal arguments on appeal. Pet. at 2.

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[15] *E.g.*, R. 1137 (supporting the general thermal effluent limitation in the 2011 draft permit); R. 0473-80, 0996-97 (objecting to the alternative limitation in 2013 draft permit); R. 1133-36 (objecting to the 316(b) condition).

[16] In particular, they argue that the Environmental Groups failed to raise issues related to: 316(a) in general (IEPA Mot. for S.J. at 18, IEPA Reply at 4); Subpart K and the 316(b) Rule (MWGen Reply at 6, IEPA Reply at 8); §§ 125.98(b)(6) and 125.95(a)(2) of the 316(b) Rule (MWGen Mot. for S.J. at 32, MWGen Reply at 28); and 40 C.F.R. § 125.3 (MWGen Reply at 32).

The Board finds that the Environmental Groups have standing to bring their appeal. The dispute turns on the meaning of the term "issues" in § 40(e)(2) of the Act. The alternative thermal effluent limitation and the cooling water intake structure are the issues—the Respondents advocate an unduly narrow interpretation. Under the Respondents' interpretation, for instance, the argument that the final permit violates a specific provision in the 316(b) Rule, 40 C.F.R. § 125.98(b)(6), is an issue. *See* MWGen Mot. for S.J. at 32. This interpretation conflicts with the Act's requirement to construe its terms and provisions liberally, so as to give effect to its purposes. 415 ILCS 5/2(c) (2014). Petitioners do not need to show that they raised specific legal arguments during the comment period, so this order finds that the Petitioners have standing.

Midwest Gen cites American Bottom Conservancy v. IEPA, PCB 06-171 (Sept. 21, 2006), in support of its argument. However, in that order, the Board also construed the meaning of "issues" liberally. A petitioner lacked standing to challenge an NPDES permit on certain substantive issues, such as illegal discharges of lead and ammonia. The petitioner raised an issue during the permit's comment period, but only to request a public hearing. The petitioner's comment did not raise the lead or ammonia discharges at all; the Board held that the petitioner lacked standing to bring claims on those issues. American Bottom, slip op. at 6-7.

The Board also liberally interpreted "issues" in Brazas, Jr. v. Magnussen, PCB 06-131 (May 4, 2006). In this order, the Board dismissed three of four grounds for an NPDES permit appeal for lack of standing. The appeal petition raised issues with: (1) public notice requirements; (2) water quality standards; (3) radium in the effluent; (4) and the water quality in a specific creek. Brazas, slip op. at 2. The petitioner's comment only discussed public notice requirements and did not discuss radium or the other issues at all. Again, liberally construing "issues," the Board dismissed the three other claims. Id.

Unlike the petitioners in American Bottom and Brazas, the Environmental Groups commented on the record addressing the permit's alternative thermal effluent limitation and cooling water intake structure conditions. These comments alerted IEPA and Midwest Gen to the nature of their eventual petition before the Board. This is sufficient for standing under the Environmental Protection Act. The Environmental Groups have statutory standing, so consideration of constitutional standing is not necessary.

## Environmental Groups Bear the Burden of Proof

The Environmental Groups bear the burden of proof to show that the final permit issued by IEPA violated the Act or Board regulations. 415 ILCS 5/40(e)(3); Prairie Rivers Network v. IPCB, 335 Ill. App. 3d 391, 400 (4th Dist. 2002). However, the Board does not grant IEPA's decision any special deference. IEPA v. IPCB, 115 Ill. 2d 65, 70 (1986). The Board reviews permits that IEPA issues under a *de novo* standard of review. City of Quincy v. IEPA, PCB 08-86, slip op. at 39 (June 17, 2010).

## The Alternative Thermal Effluent Limitation in the Final Permit

In 1978, the Board granted the Facility relief from Lake Michigan's generally applicable thermal effluent water quality standards. Waukegan, PCB 77-82 (Aug. 3, 1978). At each subsequent permit renewal—1979, 1985, 1990, 1995, and 2000—IEPA included an alternative thermal effluent limitation derived from the Board's 1978 order. *See* IEPA Mot. for S.J. at 15-16. The 2011 draft permit, unlike the five preceding permits, lacked an alternative thermal effluent limitation. Instead, the 2011 draft permit required Midwest Gen to comply with the general thermal effluent limitations for Lake Michigan. R. 0171-91. Midwest Gen protested this omission. R. 0201. The 2013 draft permit reinstated the alternative thermal effluent limitation based on the Board's 1978 order, which IEPA maintained in the 2015 final permit. R. 0251-70.

The Environmental Groups argue that, under Board regulations, the final permit cannot include this alternative limitation. Pet'rs Mot. for S.J. at 16-29. To resolve this question, the Board must decide two basic issues. First, which regulations apply to the permit? Second, did the Facility's final permit comply with these regulations? This order finds that the Board's procedural rules at Part 109, Subpart K apply to the alternative thermal effluent limitation in the Facility's final permit. However, genuine issues of material fact preclude the Board from deciding the second issue.

### Subpart K Applies to the Final Permit

Before assessing the final permit, the Board must identify the applicable regulations. The parties dispute which regulations apply because procedural rules governing alternative thermal effluent limitations changed during the permitting process. The Board adopted the new "Subpart K" procedures in 2014[17]—after Midwest Gen applied to renew its permit in 2005, but before the permit was issued in 2015. The Board holds that a permit must reflect regulations in place at the time it is issued. Therefore, the newly adopted regulations apply.

The Environmental Protection Act authorizes IEPA to issue a permit with conditions, but the conditions must be consistent with Board regulations:

> "The Agency may impose such [permit] conditions as may be necessary to accomplish the purposes of the Act, and as are not inconsistent with the regulations promulgated by the Board hereunder." 415 ILCS 5/39(a) (2014).

Federal regulations also require NPDES permit conditions to comply with existing regulations: "No permit may be issued . . . [w]hen the conditions of the permit do not provide for compliance with . . . regulations promulgated under CWA." 40 C.F.R. § 122.4. Both provisions emphasize permit issuance, not the permit application. Subpart K existed when IEPA issued the final permit; under the Environmental Protection Act, no permits issued after the Board adopted Subpart K may be inconsistent with that regulation.

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[17] In the Matter of: Procedural Rules for Alternative Thermal Effluent Limitations under Section 316(a) of the Clean Water Act: Proposed New 35 Ill. Adm. Code Part 106, Subpart K and Amended Section 304.141(c), R13-20 (Feb. 20, 2014).

The Respondents argue that applying Subpart K to a permit process that began in 2005 is a retroactive application of law. IEPA Mot. for S.J. 16, MWGen Mot. for S.J. 25. They correctly note that retroactive application of law is generally disfavored. *Id*. But applying regulations adopted in 2014 to IEPA's 2015 decision is not retroactive.

Environmental regulators must enforce the regulations in effect when they take final action. In General Motors Corp. v. United States, 496 U.S. 530 (1990), a company allegedly violated existing Massachusetts air regulations. The state had submitted revised regulations to USEPA for approval; the company would not have been liable under these revised regulations. But while the revised regulations were pending approval, USEPA enforced the existing regulations against the company. The U.S. Supreme Court held that enforcement under existing regulations was appropriate. *Id.* at 540. This could end the analysis—the Board cannot allow a permit to stand if, when it is issued, its provisions are inconsistent with Board regulations. 415 ILCS 5/39(a) (2014).

However, the Board will also address the Respondents' argument that the Board cannot impose Subpart K's requirements on its application, which Midwest Gen submitted in 2005. MWGen Mot. for S.J. at 25-26, IEPA Mot. for S.J. at 16-18. In support, the Respondents mention several cases, including Landgraf v. USI Film Products, 511 U.S. 244, 263-64 (1994), which discusses whether a 1991 law should apply to a case pending on appeal when the law was enacted. But the Respondents misapprehend Subpart K. When adopted, this rule did not, as Respondents claim, "impose new duties" on Midwest Gen. IEPA Mot. for S.J. at 18 (internal citations omitted). The Subpart K rules were adopted to provide "specific procedural rules covering proceedings to obtain relief under CWA Section 316(a)."18 When the Board adopted Subpart K's renewal requirements, it only incorporated permit application obligations that already existed in federal rules when Midwest Gen submitted its renewal application.[19]

For these reasons, the Board finds that Subpart K applied to the 2015 final permit. And, as examined below, Subpart K's renewal provision, 35 Ill. Adm. Code 106.1180, specifically applies to the final permit.

**An Alternative Thermal Effluent Limitation Is Not Permanent**

An alternative thermal effluent limitation is a condition to an NPDES permit. Therefore, like the permit as a whole, it is not permanent. If a permit holder seeks renewal, then the alternative limitation must be renewed under Subpart K's procedures 35 Ill. Adm. Code 106.1180.[20] Midwest Gen argues that the alternative thermal effluent limitation is a one-time

[18] Alternative Thermal Effluent Limitations, R13-20, slip op. at 4 (Feb. 20, 2014).

[19] Requirements for an application to renew an NPDES permit containing an alternative thermal effluent limitation were in place before 2005. *See* 40 C.F.R. § 125.72 (2004). The Board relied on this section when adopting Subpart K.

[20] This order does not address whether IEPA had the authority to renew the alternative limitation. The Environmental Groups and Respondents disagree on this point. *See* Pet'rs Mot. for S.J. at 24, IEPA Mot. for S.J. at 19.

requirement; the Board's regulations do not require an alternative limitation "to be rejustified during each permit renewal." MWGen Mot. for S.J. at 8. Previous Board orders and a close reading of Subpart K contradict this interpretation.

In a recent order granting an alternative thermal effluent limitation, the Board ruled that establishing an "alternative thermal effluent limitation is not a water quality standard change."[21] The Board's regulations contain water quality standards for temperature in Lake Michigan. 35 Ill. Adm. Code 302.507. To change water quality standards, the Board must engage in a full rulemaking process. The Board may grant alternative limitations for individual facilities under the less burdensome standards of Subpart K.

Subpart K indicates that an alternative limitation expires along with the associated NPDES permit. Section 106.1180 of the Board's regulations describes the procedures for renewing an alternative limitation—this entire subsection would be superfluous if an alternative limitation never expired. To renew the alternative limitation, an applicant need not seek an entirely new alternative limitation. Sections 106.1100 through 106.1175 list the procedures to obtain a new alternative limitation. The renewal procedures are less burdensome, but still applied to IEPA's decision to issue the Facility's final permit.

**Whether the Permit Complied with Subpart K Depends on Disputed Facts**

Genuine issues of material fact preclude the Board from deciding whether the permit complied with Subpart K's renewal requirements at 35 Ill. Adm. Code 106.1180. The parties disagree on two material factual matters: (1) the nature of the thermal discharge; and (2) the alternative limitation's effect on aquatic life.

Subpart K requires IEPA to consider whether "the nature of the thermal discharge has changed materially." 35 Ill. Adm. Code 106.1180(d). The Environmental Groups argue that Respondents both admit that the nature of the thermal discharge has changed. *E.g.*, Pet'rs Mot. for S.J. at 27, citing R. 0662, 0666, 0987. Midwest Gen, however, argues that "the nature of the thermal discharge did not change." *E.g.*, MWGen Reply at 25, citing R. 0239-40. This is an obvious issue of material fact.

Subpart K also requires IEPA to consider whether the alternative limitation granted by the Board has caused "appreciable harm to a balanced, indigenous population of shellfish, fish, and wildlife" in Lake Michigan when renewing an alternative limitation. 35 Ill. Adm. Code 106.1180(d). The parties also disagree about whether evidence in the administrative record shows appreciable harm. *E.g.*, Pet'rs Mot. for S.J. at 28, citing R. 0988; IEPA Mot. for S.J. at 22-23, citing R. 0204.

The Board directs the parties to address these issues at hearing.

[21] Exelon Generation, LLC (Dresden Nuclear Generating Station) v. IEPA, PCB 15-204, slip op. at 40 (Mar. 3, 2016).

**The Final Permit's Condition on the Facility's Cooling Water Intake Structure**

No party disputes that the 316(b) Rule applies to the Waukegan Generating Station.[22] In general, the 316(b) Rule requires a permit applicant to submit information about its operations. Then the permit writer, using his best professional judgment, chooses among the rule's options for the best technology available for the applicant's operations. However, all parties also acknowledge that the 316(b) Rule phases in its new requirements over time.[23] According to USEPA, phasing in requirements over time affords flexibility for facilities that "may already be in the middle of a permit proceeding at the time of promulgation." 79 Fed. Reg. 48,300, 48,358 (Aug. 15, 2014).

A permit application submitted after July 14, 2018 must include extensive information about an applicant's cooling water intake structure. Likewise, permits issued after July 14, 2018 must include conditions to ensure that cooling water intake structures use the best technology available ("BTA") for minimizing adverse environmental impact.[24] But some permit applications submitted before that date need not include extensive information. And some permits issued before that date must only establish interim technology requirements.

The Environmental Groups ask the Board to apply the 316(b) Rule's BTA requirements to the Facility's permit. This raises three issues. Under the 316(b) Rule, was Midwest Gen required to submit additional information about its cooling water intake structure before IEPA issued the permit? Does the 316(b) Rule require the permit impose full BTA requirements or just interim BTA requirements? And, finally, does the record show that the Facility's cooling water intake structure meets the appropriate BTA requirements?

The Board finds that the 316(b) Rule did not require Midwest Gen to supplement its permit application and that its permit correctly included interim BTA requirements. However, the Board will not decide the last issue noted above until after a hearing, when the Board can resolve disputed facts.

**The 316(b) Rule Does Not Require Midwest Gen to Have Submitted Additional Information**

Eventually, owners or operators of all facilities in Illinois covered by the 316(b) Rule will have to submit a wide range of information to IEPA. This information is listed at 40 C.F.R. §

[22] Pet'rs Mot. for S.J. at 30, IEPA Mot. for S.J. at 24 (disputing how the Petitioners would apply the 316(b) Rule, but not disputing that it applies in some form); MWGen Mot. for S.J. at 31 (noting that a provision in the 316(b) Rule "expressly applies").

[23] Pet'rs Mot. for S.J. at 30-31, IEPA Mot. for S.J. at 24-25, MWGen Mot. for S.J. at 31-32.

[24] "Full BTA" is not a term used in the text of the 316(b) Rule, but is used here to mean the BTA standards under 40 C.F.R. §§ 125.94(c), (d) (2015). The term "full BTA" is used here to clearly distinguish it from the "interim BTA" standard.

122.21(r).[25] According to USEPA, this information can take up to 39 months to develop. 79 Fed. Reg. 48,300, 48,359 (Aug. 15, 2014). The Environmental Groups argue that IEPA erred in not requiring Midwest Gen to submit this information before granting the final permit. Pet'rs Mot. for S.J. at 34. Midwest Gen admits it did not submit the § 122.21(r) information, but argues that the 316(b) Rule does not require it. MWGen Mot. for S.J. at 32-33.

Section 122.21(r) describes *what* information applicants must submit, but a separate section, § 125.95, describes *when* they must submit it. In light of the lengthy process of developing § 122.21(r) information, the 316(b) Rule sequences its requirements in an orderly way. All applications to renew permits that expire after July 14, 2018 must submit § 122.21(r) information. 40 C.F.R. § 125.95(a)(1). However, applications to renew permits that expire before then do not necessarily need to contain § 122.21(r) information.

Section 125.95(a)(2) regulates permits that expire before July 14, 2018:

> The owner or operator of a facility, subject to this subpart whose currently effective permit expires prior to or on July 14, 2018, may request the [permitting authority] to establish an alternate schedule for the submission of the information required in 40 CFR 122.21(r) when applying for a subsequent permit (consistent with the owner or operator's duty to reapply pursuant to 40 CFR 122.21(d)). If the owner or operator of the facility demonstrates that it could not develop the required information by the applicable date for submission, the [permitting authority] must establish an alternate schedule for submission of the required information.

The Environmental Groups acknowledge this provision, but argue that Midwest Gen both failed to ask IEPA for an alternate schedule and failed to demonstrate that it could not submit § 122.21(r) information by the applicable date of submission. Pet'rs Reply at 30-31. Therefore, they argue, IEPA should have required Midwest Gen to submit § 122.21(r) information. However, these steps are prerequisites only *when applying for a subsequent permit*. In Midwest Gen's case, the Facility's permit expired in 2005, so Midwest Gen applied for a subsequent permit almost a decade before USEPA promulgated the 316(b) Rule. Therefore, Midwest Gen did not have to ask for an alternate schedule or demonstrate that it could not gather information in time. The triggering date under § 125.95(a)(2)—the permit's expiration date—had already passed.

Section 125.95(a)(2)'s explicit reference to § 122.21(d), the regulation that establishes a permit holder's duty to reapply, reinforces this interpretation. Under § 122.21(d), Midwest Gen was required to "submit a new application 180 days before the existing permit expire[d]": 180 days before July 31, 2005. R. 0109. At this date, the permit application is considered submitted.

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[25] Section 122.21(r) requires permit applicants to submit basic information such as source water physical data and cooling water intake structure data. Where applicable, owners or operators will also have to submit source water baseline biological characterization data, a comprehensive technical feasibility and cost evaluation study, and a benefits evaluation study. Several of these studies must be peer reviewed in certain cases.

No provision in § 125.95, which directly deals with the permit application requirements, requires a permit holder to supplement a permit application that has already been submitted.

This sequence of events makes sense because the § 122.21(r) information can take up to 39 months to develop. Then, renewal applications submitted soon after the 316(b) Rule was promulgated may ask for extra time. These application requirements do not apply to applications submitted before the rule was promulgated. Indeed, a separate provision, § 125.98, directly addresses how to handle permits that were applied for before then, as discussed next.

**The Permit Must Contain Interim BTA Requirements**

If the 316(b) Rule does not require Midwest Gen to submit detailed information about its cooling water intake structure, then its permit should not impose requirements based on that detailed information. The analysis of the rule language, below, shows that this is the case. The same flexibility that USEPA affords permit applicants extends to permit writers. While the rule's full requirements will affect the next permit proceeding, the permit at issue in this appeal must include only interim BTA requirement.

Section 125.98, titled "Director Requirements," instructs those writing cooling water intake structure provisions in an NPDES permit. Like the applicant's requirements, the 316(b) Rule gradually introduces requirements, but based on the date the permit is issued. Any permit issued after July 14, 2018 must include full BTA requirements. 40 C.F.R. § 125.98(b)(2). Two separate subsections address permits issued before then. In the first case, if a permit has received an alternate schedule for submitting § 122.21(r) information, then the permit must contain interim BTA requirements. 40 C.F.R. § 125.98(b)(5). As described above, this category addresses permittees who submitted a renewal application between October 14, 2014 and July 14, 2018. In the second case, a separate subsection, § 125.98(b)(6), addresses permits for which an application was submitted before promulgation:

> In the case of any permit issued after October 14, 2014, and applied for before October 14, 2014 . . . the [permitting authority] must establish interim BTA requirements in the permit based on the [permitting authority's] best professional judgment on a site-specific basis in accordance with § 125.90(b) and 40 CFR 401.14.

Section 125.98(b)(6) explicitly describes Midwest Gen's permit: issued after October 14, 2014 and applied for before then. The other two sections, § 125.98(b)(2) and (b)(5), do not. *See* MWGen Mot. for S.J. at 31-32. The Environmental Groups argue that the 316(b) Rule requires IEPA to include full BTA requirements in the permit, but § 125.98(b)(6) explicitly imposes interim BTA requirements instead. Pet'rs Mot. for S.J. at 34-35. The Environmental Groups acknowledge that some permits only need to contain interim BTA requirements, but argue that Midwest Gen must affirmatively qualify for them. Pet'rs Reply at 30-32. They reach this conclusion by examining § 125.98(b)(5), which affords interim BTA to permit applicants that received an alternate schedule for submitting § 122.21(r) information. *Id.* But as this opinion has explained, Midwest Gen did not need to request an alternate schedule and is not covered by § 125.98(b)(5).

**Whether the Permit Complied with 316(b) Depends on Disputed Facts**

The Board does not reach a finding on the ultimate issue of whether the final permit complies with the 316(b) Rule because the remaining legal question relies on disputed facts. At hearing, the Board will hear testimony on the remaining legal question: does the record show that the Facility met interim BTA requirements, as required by § 125.98(b)(6)?

The Environmental Groups, IEPA, and Midwest Gen's arguments on the relevance of the information in the record presents issues of material fact. The Environmental Groups argue that a decades-old study of impingement and entrainment impacts may no longer apply to current conditions. Pet'rs Reply at 35. However, Midwest Gen argues that those studies are still reliable and show that the "environmental impact of the intake structure had been minimized by the existing technology." MWGen Mot. for S.J. at 35. The parties are directed to address these areas of dispute at hearing.

## CONCLUSION

For the reasons given above, the Board partially grants the Petitioners' and Respondents' motions for summary judgment. The Board finds that: (1) the Environmental Groups have standing to bring both claims presented in their petition; (2) Subpart K applies to the alternative thermal effluent limitation condition in the Facility's NPDES permit; and (3) the final permit must contain interim BTA requirements on the Facility's cooling water intake structure. The Board otherwise denies the parties' motions for summary judgment.

The Hearing Officer is directed to expeditiously proceed to hearing on the particular disputed facts described above, according to the instructions given in the Board's May order.

## ORDER

1. The Environmental Groups' motion for summary judgment requesting the Board find they have standing is granted.

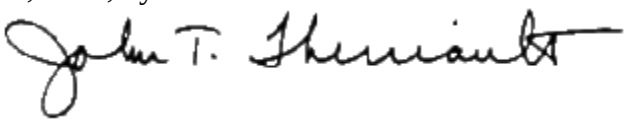
2. The Environmental Groups' motion for summary judgment requesting the Board find that Subpart K procedural rules apply to the permit's alternative thermal effluent limitation is granted.

3. The Respondents' motions for summary judgment requesting the Board find that the permit must have established interim BTA requirements for its cooling water intake structure are granted.

4. The Environmental Groups' and Respondents' motions for summary judgment are otherwise denied.

IT IS SO ORDERED.

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on April 7, 2016, by a vote of 5-0.



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John T. Therriault, Clerk
Illinois Pollution Control Board