

ILLINOIS POLLUTION CONTROL BOARD
December 18, 2014

METROPOLITAN WATER RECLAMATION)
DISTRICT OF GREATER CHICAGO,)
)
Petitioner,)
)
v.) PCB 14-103
) (Calumet)
ILLINOIS ENVIRONMENTAL) PCB 14-104
PROTECTION AGENCY,) (O'Brien)
) (Permit Appeal - Water)
Respondent.) (Consolidated)

OPINION AND ORDER OF THE BOARD (by J.A. Burke):

The Illinois Environmental Protection Agency (Agency) issued to the Metropolitan Water Reclamation District of Greater Chicago (District) two National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act (CWA). NPDES Permit IL0028061 covers discharges from the Calumet Water Reclamation Plant (Calumet Plant). NPDES Permit IL0028088 covers discharges from the Terrence J. O'Brien Water Reclamation Plant (O'Brien Plant). Pursuant to Section 40(a)(1) of the Illinois Environmental Protection Act (Act), the District filed two petitions asking the Board to review certain conditions imposed in these two permits. *See* 415 ILCS 5/40(a)(1) (2012). Specifically, the District challenges permit conditions relating to sampling frequency for fecal coliform and dissolved oxygen in its discharges.

The District moves for summary judgment on each petition. The Agency responded to the District's motion and also moves for summary judgment on each petition. Both parties agree that there are no issues of material fact precluding the Board from issuing final judgment in these matters. The Board finds that summary judgment is appropriate at this time. For the reasons discussed below, the Board grants summary judgment in part for the Agency and in part for the District. Specifically, the Board affirms the Agency's imposition of continuous monitoring for dissolved oxygen at the main outfall of the O'Brien Plant. However, the Board also finds that the Agency's decision to require daily sampling for fecal coliform is not necessary to meet the requirements of the Act or Board regulation. The District's request to monitor fecal coliform five days a week is sufficient to demonstrate compliance with the Act and Board regulation.

PROCEDURAL BACKGROUND

On March 3, 2014, the District filed two petitions asking the Board to review two separate permits issued by the Agency on December 23, 2013. Each petition relates to the Agency's issuance of NPDES permits for one of two separate District facilities in Cook County: the Calumet Plant (Calumet Pet.) and the O'Brien Plant (O'Brien Pet.). The Board docketed the permit appeals as PCB 14-103 for the Calumet Plant, and PCB 14-104 for the O'Brien Plant.

The Board consolidated the dockets on April 3, 2014. On March 26, 2014, the Agency filed a consolidated permit record (R.).

On July 10, 2014, the District filed a combined motion for summary judgment addressing each petition (Dist. Mot.). On September 19, 2014, the Agency responded to the motion and cross-moved for summary judgment on each petition (Ag. Resp.). On October 31, 2014, the District filed its reply in support of its motion and its response to the Agency's cross-motion (Dist. Resp.) as allowed by the Board's hearing officer.

On August 22, 2014, the Board also received a public comment jointly submitted by the Environmental Law & Policy Center, Natural Resources Defense Council, Prairie Rivers Network, and Sierra Club (Environmental Groups) responding to the District's motion. The Environmental Groups support imposing continuous monitoring for dissolved oxygen. However, they agree with the District's arguments that the Agency insufficiently addressed public comments on the permits.

PRELIMINARY PROCEDURAL MATTER

On November 14, 2014, the Agency filed a motion (Ag. Mot.) pursuant to Section 101.500(e) of the Board's procedural rules seeking leave to file its reply in support of its motion for summary judgment. The Agency argues that the District asserted a "novel argument" that the District is "'unsure what conduct is prohibited by the 'continuous' sampling requirement' for dissolved oxygen." Ag. Mot. at 1-2. The Agency asserts that it would be materially prejudiced if not allowed to respond to this assertion. *Id.* at 2. The Agency requested that it be allowed to file a reply by November 21, 2014. *Id.* The Agency filed its reply (Ag. Reply) on November 19, 2014.

The District did not object to the Agency's motion for leave to file a reply. The Board grants the Agency's motion for leave to file a reply in support of its motion for summary judgment.

FACTS

The District primarily is located in Cook County and serves an area of 883 square miles including Chicago and suburban communities. Calumet Pet. at 2; O'Brien Pet. at 2. The District operates seven water reclamation plants (WRPs) treating residential and industrial wastewater. *Id.* This consolidated docket relates to two of the seven plants: the Calumet Plant and the O'Brien Plant.

Calumet Plant

The Calumet Plant treats wastewater from parts of Chicago and its south suburbs. Calumet Pet. at 2. The Calumet Plant is located at 400 East 130th Street, Chicago and discharges to the Little Calumet River. *Id.* at 1.

On August 23, 2006, the District applied to the Agency to renew its NPDES permit for the Calumet Plant. R. at 2182-2335; Calumet Pet. at 1; Ag. Resp. at 2. The Agency record reveals that, over the course of the next seven years, the Agency communicated with the District, the United States Environmental Protection Agency (USEPA), and the public regarding the application and prepared various drafts of the permit. The Board summarizes below only the portions of the record dealing with the specific permit condition at issue in the District's appeal of the permit for the Calumet Plant relating to the frequency of sampling for fecal coliform at outfall 001.

On November 9, 2009, the Agency issued a draft permit for the Calumet Plant along with a public notice and fact sheet. R. at 3376, 3551-3573; Calumet Pet. at 1; Ag. Resp. at 2. The draft permit did not include a numeric effluent limit or sampling requirement for fecal coliform at outfall 001. *See* R. at 3551-3573. The public notice stated that the public comment period would end on December 9, 2009. *Id.* at 3551. The District submitted two sets of comments to the Agency in December 2009 relating to the Calumet Plant. *Id.* at 2513-2519; Calumet Pet. at 1-2. On December 8, 2009, USEPA provided comments to the Agency but did not address any numeric limit or sampling for fecal coliform at outfall 001. R. at 3607-3610.

On March 9, 2010, the Agency held a public hearing on the draft NPDES permit for the Calumet Plant. R. 1326-1327; Calumet Pet. at 2; Ag. Resp. at 3-4. Agency personnel and District personnel were present at the hearing. R. at 1327. Approximately thirty persons were present at the hearing including representatives of USEPA, the Illinois Attorney General, and various citizen groups. *Id.* at 1327. A transcript of the hearing is available in the Agency record. *Id.* at 3348-3502. Approximately 120 additional post-hearing comments are included as exhibits to the hearing record. *Id.* at 3801-5544. The Agency closed the hearing record on April 8, 2010. *Id.* at 1327, 3354.

For three years following the hearing, the Agency appears to have continued to work on drafting the permit. On March 8, 2013, the Agency provided to the District by email a revised draft permit for the Calumet Plant. R. at 2596; Calumet Pet. at 2; Ag. Resp. at 4. Although the March 2013 version of the draft permit is not contained in the Agency record filed with the Board, it appears that the parties agree that this is the first draft to include a limitation and sampling requirement for fecal coliform at outfall 001. Calumet Pet. at 4; Dist. Mot. at 3; Ag. Resp. at 4.

On April 1, 2013, the District provided written comments to the Agency on the draft permit for the Calumet Plant. R. at 2596-2603; Calumet Pet. at 2, 4; Ag. Resp. at 4. As to fecal coliform sampling frequency, the District stated as follows:

The sample frequency for fecal coliform is daily. Currently, all fecal coliform testing at the District is performed at the Stickney WRP. Daily sampling (especially on weekends) will place an additional burden on District staff with respect to transportation and analysis as there is typically a six-hour holding time limitation to begin fecal coliform testing. It is requested that a 5 day per week sampling frequency be allowed in order to reduce the additional burden. A 5 day

per week sampling frequency would also be consistent with the other three District WRPs that currently disinfect the effluent. R. at 2597.

In May 2013, USEPA provided comments to the Agency. R. at 1303-1310; Ag. Resp. at 4. USEPA stated that fecal coliform should be monitored daily. R. at 1304. On December 19, 2013, USEPA informed the Agency that it did not object to issuing the permit. *Id.* at 1319-1320.

On December 23, 2013, the Agency issued a document titled “Responsiveness Summary Regarding March 9, 2010 Public Hearing.” R. at 1321-1365; Ag. Resp. at 5. The document describes the hearings held on March 9, 2010; lists the revisions made to the draft permits in the final permits; and responds to comments received during the public comment period. *Id.* The document notes revisions “made to the draft permits after the close of the public notice comment period” including that “seasonal fecal coliform effluent limits have been added for Outfall 001” and “Special Condition 20 has been added to include a compliance schedule for the construction of disinfection facilities.” R. at 1323, 1325.

In the responsiveness summary, the Agency described that it received public comment that water must be treated so that harmful bacteria is not present at high enough levels to interfere with recreational use and that disinfection be implemented by the end of the permit period. The Agency stated:

The Illinois Pollution Control Board (IPCB) has adopted four categories of recreational use designations for the [Chicago Area Waterways System (CAWS)]. The waterway segments which the Calumet and Terrence J. O’Brien plants discharge to are considered Primary Contact Recreation Waters. Therefore, both of these permits include effluent limits for fecal coliform. Compliance schedules have also been added to provide the District necessary time to comply with the fecal coliform limit. Semi-annual progress reports must be submitted to the Agency until compliance is achieved, with compliance being required by March 31, 2016. R. at 1334; *see also* R. at 1352-1353.

Also on December 23, 2013, the Agency issued the final NPDES permit for the Calumet Plant. Calumet Pet. at 2; Ag. Resp. at 5. Although the final permit for the Calumet Plant is not contained in the record filed by the Agency, it was attached to the District’s petition. Calumet Pet. at Exh. A. The cover letter to the final permit responds to comments the District submitted to the Agency. Calumet Pet. Exh. A at 1-3. As to comments the District submitted on April 1, 2013, the Agency stated, “[f]ecal coliform sampling of outfall 001 on a daily basis is required by USEPA. Therefore, the Final Permit has not been revised.” *Id.* at 2.

The final permit for the Calumet Plant requires that effluent discharged from outfall 001 meets a numeric limit on fecal coliform as follows: (1) monthly geometric mean not to exceed 200 colony forming units per 100 milliliters (mL) and (2) no more than 10% of the samples collected in a month shall exceed 400 colony forming units per 100 mL during March through November. Calumet Pet. Exh. A at 6. The final permit further requires daily grab sampling for fecal coliform. *Id.* Special Condition 20 of the permit provides that the fecal coliform limit will

become effective on March 31, 2016 and provides a compliance schedule with semiannual status reports. *Id.* at 25 (Special Condition 20).

O'Brien Plant

The O'Brien Plant, formerly named the North Side Water Reclamation Plant, treats wastewater from parts of Chicago and north suburbs. O'Brien Pet. at 3. The O'Brien Plant is located at 3500 West Howard Street, Skokie and discharges to the North Shore Channel. *Id.* at 1.

On August 23, 2006, the District applied to the Agency to renew its NPDES permit for the O'Brien Plant. R. at 2680-2801; O'Brien Pet. at 1; Ag. Resp. at 2. The Agency record reveals that, over the course of the next seven years, the Agency communicated with the District, USEPA, and the public regarding the application and prepared various drafts of the permit. The Board summarizes below only the portions of the record dealing with the specific permit conditions at issue in this appeal relating to the frequency of sampling for fecal coliform and dissolved oxygen.

On July 13, 2007, the Agency provided to the District a draft permit for the O'Brien Plant. R. at 2853-2876. This draft included a requirement that dissolved oxygen in effluent from outfall 001 not be less than 4 milligrams per liter (mg/L) and the District must perform daily grab samples. R. at 2861. The District provided comments to the Agency on October 1, 2007. *Id.* at 2877-2883. The District understood this condition to be based on 35 Ill. Adm. Code 302.405, which required that dissolved oxygen not be less than 4 mg/L at any time. *Id.* at 2877. The District requested that it be allowed to comply with the condition by using a daily average of grab samples collected over three shifts rather than a single grab. *Id.*; *see also id.* at 2920.

On December 28, 2007, the Agency sent the District a revised draft permit for the O'Brien Plant. R. at 2922-2945. The Agency stated:

35 Illinois Administrative Code Section 302.405 requires that the dissolved oxygen not be less than 4 mg/L at any time. Averaging samples is not permitted. Therefore, the sampling types remains unchanged. Special Condition 20 has been added to the permit to allow the District additional time to meet the limit. R. at 2922.

The December 2007 draft permit included a requirement that dissolved oxygen in effluent from outfall 001 not be less than 4 mg/L, and the District must perform daily grab samples. R. at 2931. In addition, a new special condition provided that the dissolved oxygen requirement would become effective two years from the effective date of the permit. *Id.* at 2945. The Agency also revised the draft permit to require continuous monitoring for dissolved oxygen at certain specified locations other than outfall 001 (*Id.* at 2941) as compared to grab samples in the prior draft (*Id.* at 2871). The District provided comments to the Agency on January 8, 2008 but did not comment on sampling provisions for dissolved oxygen. *Id.* at 2947-2952. USEPA provided comments to the Agency on January 29, 2008. *Id.* at 2966-2968. USEPA questioned the basis for allowing two years to comply with the dissolved oxygen requirement. *Id.* at 2968. The District responded to USEPA's comments on February 13, 2008, including timing on

construction projects needed to comply with the dissolved oxygen requirement. *Id.* at 2974-2978.

On November 12, 2009, the Agency issued another draft permit and provided public notice of the availability of the draft for the O'Brien Plant along with a public notice and fact sheet. R. at 3359, 3530-3556; O'Brien Pet. at 1; Ag. Resp. at 2. The draft permit required that dissolved oxygen not be less than 4 mg/L and be sampled daily by grab sample. R. at 3536. A special condition required compliance with the dissolved oxygen standard within two years. *Id.* at 3550. Another special condition required continuous monitoring for dissolved oxygen at locations other than outfall 001. *Id.* at 3547. The draft permit did not include a numeric effluent limit or sampling requirement for fecal coliform at outfall 001. *See id.* at 3530-3556.

The District submitted comments to the Agency on December 11, 2009. R. at 3603-3606; O'Brien Pet. at 2. The District did not comment on the numeric standard for dissolved oxygen, sampling frequency, or compliance schedule. *See id.* at 3603-3606. The District objected to the reporting method for continuous monitoring of dissolved oxygen at locations other than outfall 001 and requested that it be allowed to submit the information in an annual report rather than with discharge sampling reports. *Id.* at 3605.

On March 9, 2010, the Agency held a public hearing on the draft permit. R. 1326-1327; O'Brien Pet. at 2; Ag. Resp. at 3-4. Details on the hearing are described above under the background on the Calumet Plant.

For three years following the hearing, the Agency appears to have continued to work on drafting the permit. On March 8, 2013, the Agency provided by email a revised draft permit for the O'Brien Plant. R. at 3288; O'Brien Pet. at 2; Ag. Resp. at 4. Although this version of the draft permit is not contained in the Agency record filed with the Board, the parties agree that this is the first draft to include a limitation and sampling requirement for fecal coliform at outfall 001. O'Brien Pet. at 4; Dist. Mot. at 5; Ag. Resp. at 4. For dissolved oxygen, the March 2013 draft permit appears to have listed sample frequency as "continuous" and the sample type as "grab." *Id.*

On April 1, 2013, the District provided written comments to the Agency on the March 2013 draft permit for the O'Brien Plant. R. at 3288-3295; O'Brien Pet. at 2, 7; Ag. Resp. at 4. As to fecal coliform sampling frequency, similar to its comments on the draft permit for the Calumet Plant, the District stated as follows:

The sample frequency for fecal coliform is daily. Currently, all fecal coliform testing at the District is performed at the Stickney WRP. Daily sampling (especially on weekends) will place an additional burden on District staff with respect to transportation and analysis as there is typically a six-hour holding time limitation to begin fecal coliform testing. It is requested that a 5 day per week sampling frequency be allowed in order to reduce the additional burden. A 5 day per week sampling frequency would also be consistent with the other three District WRPs that currently disinfect the effluent. R. at 3289.

As to dissolved oxygen sampling, the District commented:

The District requests clarification regarding Dissolved Oxygen (DO) reporting. The Permit states that the reporting frequency should be continuous, yet the sample type is grab. This appears to be incompatible and the District requests that the sample frequency and type be consistent with the other parameters. R. at 3289.

The District also commented on the special condition relating to continuous dissolved oxygen sampling at specified locations other than outfall 001 but did not object to continuous monitoring at these other locations. R. at 3293.

In May 2013, USEPA provided comments to the Agency. Ag. Resp. at 4; R. at 1303-1310. USEPA stated that dissolved oxygen sampling should be continuous for the O'Brien Plant. R. at 1309. USEPA also suggested changes to language in the compliance schedule for dissolved oxygen. *Id.* at 1310. On July 8, 2013, USEPA provided additional comments including that sampling for dissolved oxygen at the O'Brien Plant should be continuous. *Id.* at 3305. USEPA stated:

[The District] . . . asked in their April 1, 2013 comments to replace the sample type for dissolved oxygen to match the sample frequency of 'Continuous.' The latest June 2013 version of the Northside permit eliminated the 'grab' sample type, but did not put anything under sample type for [dissolved oxygen]. Sample type for [dissolved oxygen] should be placed in permit as Continuous. R. at 3305.

On December 19, 2013, USEPA informed the Agency that it did not object to issuing the permit. R. at 1319-1320.

On December 23, 2013, the Agency issued a document titled "Responsiveness Summary Regarding March 9, 2010 Public Hearing." R. at 1321-1365; Ag. Resp. at 5. The document describes the hearings held on March 9, 2010; lists the revisions made to the draft permits in the final permits; and responds to comments received during the public comment period. *Id.* The document notes revisions "made to the draft permits after the close of the public notice comment period." *Id.* at 1323. As to fecal coliform, the summary stated that "seasonal fecal coliform effluent limits have been added for Outfall 001" and "Special Condition 20 has been added to include a compliance schedule for the construction of disinfection facilities." R. at 1325. As to dissolved oxygen, the summary stated "the dissolved oxygen effluent limit for Outfall 001 has been revised along with the sample frequency" and "Special Condition 17 (draft Special Condition 19) has been revised to comply with the dissolved oxygen effluent limits of 35 Ill. Adm. Code 303.441. The schedule has also been updated to include testing requirements." *Id.*

In the responsiveness summary, the Agency described that it received public comment that water must be treated so that harmful bacteria is not present at high enough levels to interfere with recreational use and that disinfection be implemented by the end of the permit period. The Agency stated:

The Illinois Pollution Control Board (IPCB) has adopted four categories of recreational use designations for the CAWS. The waterway segments which the Calumet and Terrence J. O'Brien plants discharge to are considered Primary Contact Recreation Waters. Therefore, both of these permits include effluent limits for fecal coliform. Compliance schedules have also been added to provide the District necessary time to comply with the fecal coliform limit. Semi-annual progress reports must be submitted to the Agency until compliance is achieved, with compliance being required by March 31, 2016. R. at 1334.

The Agency also stated that it received comment asking why the permit for the O'Brien Plant included a compliance schedule for dissolved oxygen. R. at 1355. The Agency responded:

The previous permit did not include a dissolved oxygen effluent limit. The permit requires that the effluent not exceed the water quality standard when it is discharged into the North Shore Channel. [The District] needs additional time to bring the necessary equipment online; hence the two-year compliance schedule in the permit. The effluent limitation has been revised since the public notice to comply with the water quality standard requirements of 35 Ill. Adm. Code 303.441. R. at 1355.

Also on December 23, 2013, the Agency issued the final NPDES permit for the O'Brien Plant. R. at 3308-3337; O'Brien Pet. at 2; Ag. Resp. at 5. The cover letter to the final permit responds to comments the District submitted to the Agency. R. at 3308-3310. As to comments the District submitted on April 1, 2013, the Agency stated "the dissolved oxygen sample type for Outfall 001 has been revised to 'continuous' to be consistent with the sample frequency and as required by USEPA." *Id.* at 3309. As to Special Condition 17 pertaining to the compliance schedule for dissolved oxygen, the Agency stated it had been "revised to include the word 'enhance.'" *Id.* at 3310. The Agency also stated "fecal coliform sampling of Outfall 001 on a daily basis is required by USEPA. Therefore, the Final Permit has not been revised." *Id.* at 3309.

The final permit for the O'Brien Plant requires that effluent discharged from outfall 001 meets a numeric limit on fecal coliform as follows (1) monthly geometric mean not to exceed 200 colony forming units per 100 mL and (2) no more than 10% of the samples collected in a month shall exceed 400 colony forming units per 100 mL (March through November). R. at 3313. The final permit further requires daily grab sampling for fecal coliform. *Id.* Special Condition 20 provides that the fecal coliform limit will become effective on March 31, 2016 and provides a compliance schedule. *Id.* at 3332.

The final permit for the O'Brien Plant also requires that dissolved oxygen shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. R. at 3313. The District must conduct continuous monitoring for dissolved oxygen. *Id.* Special Condition 17 provides that the numeric standard for dissolved oxygen will become effective two years after the effective date of the permit and provides a compliance schedule. *Id.* at 3329.

LEGAL BACKGROUND AND BURDEN OF PROOF

The CWA makes it unlawful for any person to discharge a pollutant from a point source into waters of the United States without a permit. 33 U.S.C. § 1311(a). Similarly, Illinois statute prohibits discharge of any contaminant to surface waters in Illinois without an NPDES permit. 415 ILCS 5/12(f) (2012); *see also* 35 Ill. Adm. Code 309.102. In general, discharge limitations in a permit are technology-based or water quality-based. 33 U.S.C. § 1311(b). Technology-based effluent limits generally are developed for an industry and reflect the “best available technology economically achievable.” 33 U.S.C. § 1311(b)(2)(A); *see e.g.* 40 C.F.R. Parts 405-471.

Water quality-based effluent limits ensure that water quality standards are met regardless of technology or economics considered in establishing technology-based limits. Water quality-based effluent limits are defined as “any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations . . . or any other Federal law or regulation, or required to implement any applicable water quality standard.” 33 U.S.C. § 1311(b)(1)(C). If a discharge from a point source interferes with attainment or maintenance of a water quality standard, an effluent limitation is established for that discharge notwithstanding any other technology-based standard. 33 U.S.C. §§ 1311(b)(1)(C), 1312(a); *see also* 35 Ill. Adm. Code 304.105.

Water quality standards are set under authority provided to the states in CWA Section 303. 33 U.S.C. § 1313. Illinois statute authorizes the Board to adopt water quality standards. 415 ILCS 5/13 (2012). The Board has done so, and the Board's water quality standards are found at 35 Ill. Adm. Code Part 302. Certain water quality standards apply only to specially designated waters and those designations are found at 35 Ill. Adm. Code Part 303.

The Act requires that the Agency issue permits to applicants upon proof that the facility will not cause a violation of the Act or Board regulations. 415 ILCS 5/39(a) (2012). Section 39(a) of the Act sets forth the standard concerning the Agency's authority to act upon permit applications:

When the Board has by regulation required a permit for the construction, installation, or operation of any type of facility, equipment, vehicle, vessel, or aircraft, the applicant shall apply to the Agency for such permit and it shall be the duty of the Agency to issue such a permit upon proof by the applicant that the facility, equipment, vehicle, vessel, or aircraft will not cause a violation of this Act or of regulations hereunder. 415 ILCS 5/39(a) (2012).

The Act expressly provides that the Agency is the NPDES permitting authority in Illinois. 415 ILCS 5/39(b) (2012). NPDES permits must “contain those terms and conditions, including but not limited to schedules of compliance, which may be required to accomplish the purposes and provisions of the Act.” 415 ILCS 5/39(b) (2012).

If the Agency denies a permit or grants a permit with conditions, the permit applicant may appeal the Agency's determination to the Board. 415 ILCS 5/40(a)(1) (2012); 35 Ill. Adm.

Code 105.204(a). The permit applicant has the burden of proof on appeal. 415 ILCS 5/40(a)(1) (2012); 35 Ill. Adm. Code 105.112(a). The permit applicant has the burden of proving that the requested permit would not violate the Act or Board regulations. Browning-Ferris Industries of Illinois, Inc. v. PCB, 179 Ill. App. 3d 598, 601 (2nd Dist. 1989). To prevail in its appeal of a permit condition, the permittee must show that the Agency's conditions were not necessary to accomplish the purposes of the Act. IEPA v. Jersey Sanitation Corp., 336 Ill. App. 3d 582, 593 (4th Dist. 2003), quoting Browning-Ferris, 179 Ill. App. 3d at 603.

In reviewing a permit condition issued by the Agency, the Board must base its decision exclusively on the record before the Agency at the time the permit was issued. 35 Ill. Adm. Code 105.214; *see also* Village of Sauget v. PCB, 207 Ill. App. 3d 974 (5th Dist. 1991). Accordingly, the record must contain evidence to support the issuance of the permit and the conditions attached to the permit. The Board reviews the record to determine if the record supports the Agency's decision and that the procedure used by the Agency is consistent with the Act and Board regulations.

BOARD DISCUSSION

The District and the Agency each moved for summary judgment on both petitions consolidated in this proceeding. Summary judgment is appropriate when the record, including pleadings, shows that there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. 35 Ill. Adm. Code 101.516(b). This is the same standard used in trial court proceedings in Illinois. IEPA v. PCB (New Lenox), 386 Ill. App. 3d 375, 391 (3rd Dist. 2008). In applying this standard to an appeal of a NPDES permit, the Board considers the pleadings and reviews the permit record to determine whether there exists a genuine issue as to any material fact. Neither the District nor the Agency has raised any contested or material issue of fact raised by either of the two petitions. Dist. Mot. at 6; Ag. Resp. at 1, 2. The Board finds summary judgment appropriate at this time.

In its two petitions and combined motion for summary judgment, the District contends that certain sampling conditions imposed by the Agency are not necessary to accomplish the purposes of the Act or Board regulations. Dist. Mot. at 7. Specifically, the District challenges daily grab sampling for fecal coliform bacteria and continuous monitoring for dissolved oxygen. The Board addresses each of these two challenges below.

Sampling Frequency for Fecal Coliform

The final permits for the Calumet and O'Brien Plants require daily grab sampling to monitor compliance with numeric limits on fecal coliform in the discharge from the plants. The District challenges the frequency of this sampling on the ground that daily sampling is not necessary to accomplish the purposes of the Act or Board regulation. Calumet Pet. at 5; O'Brien Pet. at 5; Dist. Mot. at 8. The District contends that sampling five days per week is sufficient to demonstrate compliance with the Act and Board regulation. *Id.*

Fecal Coliform Effluent Limit

The Board must determine whether the District's requested five days per week sampling for fecal coliform would not violate the Act or Board regulations and the Agency's condition requiring daily sampling is not necessary to accomplish the purposes of the Act or Board regulation. *See* 415 ILCS 5/39(a) (2012). To make this determination, the Board finds it helpful first to review the underlying effluent limit being imposed in the permit to analyze what type of sampling is appropriate.

The Board has set a state-wide numeric water quality standard for fecal coliform. The state-wide standard, known as a general use standard, is found at 35 Ill. Adm. Code 302.209. Section 302.209 requires:

During the months May through October, based on a minimum of five samples taken over not more than a 30 day period, fecal coliform . . . shall not exceed a geometric mean of 200 [colony forming units] per 100 ml, nor shall more than 10% of the samples during any 30 day period exceed 400 [colony forming units] per 100 ml in protected waters. 35 Ill. Adm. Code 302.209(a).

Section 302.209 became effective on July 11, 1988. 12 Ill. Reg. 12082 (July 11, 1988).

More recently, the Board also set an effluent limit at 35 Ill. Adm. Code 304.224. Section 304.224 provides:

From March 1 through November 30, effluents discharged to the Primary Contact Recreation waters listed in 35 Ill. Adm. Code 303.220 must not exceed 400 fecal coliform colony forming units [] per 100 mL if less than 10 samples are taken in a month. If 10 or more samples are taken in a month, fecal coliform shall not exceed a 30-day geometric mean of 200 [colony forming units] per 100 mL, nor shall more than 10% of the samples during any 30 day period exceed 400 [colony forming units] per 100 mL. All effluents in existence on or before February 3, 2012 must meet these standards by March 1, 2016. All new discharges must meet these standards upon the initiation of discharge. 35 Ill. Adm. Code 304.224.

Section 304.224 applies to the Calumet and O'Brien Plants because they discharge to Primary Contact Recreation waters listed in 35 Ill. Adm. Code 303.220. The Calumet Plant discharges to the Little Calumet River and the O'Brien Plant discharges to the North Shore Channel. Specifically, Primary Contact Recreation Waters include

- a) Lower North Shore Channel from [O'Brien] Plant to confluence with North Branch of the Chicago River

* * *

- e) Little Calumet River from its confluence with Calumet River and Grand Calumet River to its confluence with Cal-Sag Channel . . . 35 Ill. Adm. Code 303.220(a), (e).

Section 304.224 became effective on February 2, 2012. 36 Ill. Reg. 2586 (Feb. 2, 2012); *see also* Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B) (Feb. 2, 2012). Thus, this effluent requirement became effective after the November 2009 draft permits and the March 2010 public hearing but before issuance of the final permits in December 2013. At the time the Agency issued the permits on December 23, 2013, the plants were subject to Section 304.224.¹ By the express language of Section 304.224, this effluent limit will not apply to discharges from the Calumet and O'Brien Plants until March 1, 2016. *See also* Calumet Pet. Exh. A at 25 (Special Condition 20); R. at 3332 (O'Brien Plant, Special Condition 20). The Board also notes, Section 304.224 is intended to be consistent with Section 302.209. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B), slip op. at 111 (July 7, 2011).

The final permits for the Calumet and O'Brien Plants require each facility to meet a numeric limit on fecal coliform as follows (1) monthly geometric mean not to exceed 200 colony forming units per 100 mL and (2) no more than 10% of the samples collected in a month shall exceed 400 colony forming units per 100 mL (March through November). Calumet Pet. Exh. A at 6; R. at 3313 (O'Brien Plant). Special Condition 20 of both permits provides that the fecal coliform limit will become effective on March 31, 2016 and provides a compliance schedule. Calumet Pet. Exh. A at 25 (Special Condition 20); R. at 3332 (O'Brien Plant, Special Condition 20). The District does not contest these numeric limits in the permits. Calumet Pet. at 4; O'Brien Pet. at 4.

District Argument

The final permits for the Calumet and O'Brien Plants require daily grab sampling to monitor compliance with the numeric limits on fecal coliform. Calumet Pet. Exh. A at 6; R. at 3313 (O'Brien Plant). The District contends that daily sampling is not necessary to accomplish the purposes of the Act or Board regulations. Calumet Pet. at 3; O'Brien Pet. at 3; Dist. Mot. at 7-8. Rather, the District proposed to the Agency that grab samples be taken five times per week for fecal coliform sampling. *Id.* The District argues that no federal or state statute or regulation requires daily sampling of fecal coliform in discharges to a waterway. *Id.*

The District cites to 35 Ill. Adm. Code 304.224 for support that Board regulation contemplates ten samples per month which could be met by the District's suggested five samples per week. Calumet Pet. at 3; O'Brien Pet. at 3; Dist. Mot. at 8. The District contends that the

¹ Subsequently, on February 6, 2014, the Board added express language to Section 303.220 requiring Primary Contact Recreation Waters to meet the numeric water quality standard for fecal coliform bacteria found in 35 Ill. Adm. Code 302.209. Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(C) (Feb. 6, 2014).

only explanation given by the Agency for daily sampling is that USEPA requires daily sampling. Dist. Mot. at 9. However, the Agency does not provide any statutory or regulatory basis. *Id.*

Agency Argument

The Agency argues that daily sampling for fecal coliform is necessary because the daily maximum flow rate is more than double the daily average at the Calumet and O'Brien Plants. Ag. Resp. at 2. The Agency explains that the District's application for the O'Brien Plant states that the average daily flow rate is 226.5 million gallons per day. Ag. Resp. at 11, citing R. at 2688. Peak daily flow is as high as 466 million gallons in one day. Ag. Resp. at 11-12, citing R. at 2687. The District's application for the Calumet Plant states that the average daily flow rate is 224 million gallons per day. Ag. Resp. at 12, citing R. at 2188-2193. Maximum daily flow was 467 million gallons in one day. *Id.* The Agency contends that this variation in daily flow necessitates daily sampling of fecal coliform to ensure accurate averaging. Ag. Resp. at 12.

The Agency further argues that a five-day per week sampling protocol over a 28-day period will take twenty samples and leave eight days unsampled. Ag. Resp. at 12. Calculating a 30-day average from this data set may be inaccurate considering the variability in daily flows. *Id.*

District Response

The District responds that variability in the volume of flow from the plants does not provide a basis for daily sampling of fecal coliform. Dist. Resp. at 3. The District makes four points.

First, the District argues that compliance with the effluent limit on fecal coliform is measured in terms of concentration, not volume. Dist. Resp. at 3. When measuring concentration of fecal coliform in effluent, the flow does not matter. *Id.*

Second, the District argues that the record does not support that there is a "correlation between high plant flow volume and concentration of fecal coliform." Dist. Resp. at 3. The District contends that increases in flow from the plants are typically due to wet weather, which tends to have a diluting effect on sewage entering the plants. *Id.* at 4. Higher volumes often coincide with lower concentrations of fecal coliform. *Id.*

Third, the District argues that the record does not support that there is a "correlation between day-of-the-week and plant flow." Dist. Resp. at 3. The District notes that increases in flow from the plants are typically due to wet weather, which may occur any day of the week – weekends or weekdays. *Id.* at 4. Accordingly, daily sampling including weekends is not justified. *Id.*

Fourth, the District argues that calculating compliance as a 30-day geometric mean "would minimize the impact of any variations in concentration occurring on the weekends." Dist. Resp. at 3. The District argues that any variation in concentration on weekends is "virtually

irrelevant” because the permits and regulations require using a 30-day geometric mean to calculate compliance. *Id.* at 4-5.

Board Finding on Fecal Coliform Sampling Frequency

As explained above, the Agency is the NPDES permitting authority in Illinois. *See* 415 ILCS 5/39(b) (2012). NPDES permits are to include terms and conditions “required to accomplish the purposes and provisions of the Act.” *Id.* Section 309.146 of the Board’s rules provides general requirements for NPDES permits. Subsection (d) provides the following as to sampling requirements in NPDES permits:

All permits shall specify requirements concerning the proper use, maintenance, and installation, when appropriate, of sampling equipment or methods (including biological sampling methods when appropriate); required sampling including type, interval, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring. 35 Ill. Adm. Code 309.146(d).

In essence, sampling is tailored to demonstrate whether a facility is complying with an applicable standard.

The disputed condition here sets sampling frequency to demonstrate compliance with two numeric standards for fecal coliform: (1) monthly geometric mean not to exceed 200 colony forming units per 100 mL and (2) no more than 10% of the samples collected in a month shall exceed 400 colony forming units per 100 mL (March through November). Calumet Pet. Exh. A at 6; R. at 3313 (O’Brien Plant). The sampling method needs to be sufficient to yield data to show compliance with these limits.

The Board notes that the numeric fecal coliform limits set forth in the permit condition are based on the effluent limit at Section 304.224 for 10 or more samples. This limitation was adopted by the Board in Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B) (Feb. 2, 2012) based on a joint statement submitted to the Board by the Agency, the District, and the Environmental Groups. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B), Joint Statement of Illinois Environmental Protection Agency, Metropolitan Water Reclamation District, and Environmental Groups Concerning Proposed Effluent Bacteria Standards (Nov. 10, 2011) (Joint Statement). In proposing the fecal coliform limit at second notice, the Board stated,

The joint statement indicates that such a standard will address occasional outlier effluent samples. The participants did not comment further on the effluent limits except in a footnote where the District states that “it is very important that the specific numerical effluent standards” be included rather than the general 400 [colony forming units per] 100 mL originally proposed by the Board. PC [1154] at 4.

While the joint statement does not provide a detailed explanation regarding the revisions to the effluent standard, the Board notes that the suggested clarification of the standard is consistent with the General Use fecal coliform water quality standard at Section 302.209. As the participants have agreed to this clarification of the standard and no comments have been received in opposition, the Board will accept this change to the rule language. The Board is convinced that adding the 30-day geometric mean fecal coliform limit of 200 [colony forming units per] 100 mL will help in addressing potential outliers in effluent sampling data. Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B), slip op. at 16-17 (Dec. 15, 2011).

Further, the Board notes the Joint Statement in R 08-9(B) states regarding fecal coliform effluent limit,

Specifically, the Participants have agreed as follows:

2. *Technology-based effluent limitation for disinfection.* The technology-based effluent standard for disinfection should be as follows: If less than 10 samples are taken in a month, the standard should be 400 [colony forming units per] 100 ml. If 10 or more samples are taken in a month, the standard should require compliance with a 30-day geometric mean not to exceed 200 [colony forming units per] 100 ml fecal coliform, with no more than 10% of samples exceeding 400 [colony forming units per] 100 ml in any 30-day period. This standard for facilities sampling 10 or more times per month, applicable at two of MWRD's three suburban water reclamation plants (WRPs), is intended to address occasional outlier effluent samples. *The permits for the North Side and Calumet WRPs should require fecal coliform sampling 5 times per week.* Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(B), Joint Statement at 2 (emphasis added).

This regulatory background of the fecal coliform limit indicates that using a geometric mean to demonstrate compliance with the numeric limits was intended to address "occasional outlier effluent samples." Using a geometric mean would account for large fluctuations in bacterial sampling data. Dischargers, such as the District, collecting ten or more samples per month would be allowed to use a geometric mean. Further, the parties to the Joint Statement contemplated that the sampling frequency for the District's Calumet and O'Brien Plants would be five days per week not daily.

Section 304.224 does not specify a sampling frequency to demonstrate compliance with the numeric limits. Rather, the section sets the acceptable level for fecal coliform based on the number of samples taken – specifically, whether the number of samples is less than ten or greater than ten per month. Here, the District will be taking more than ten samples per month and therefore the permit requires a monthly geometric mean not to exceed 200 colony forming units

per 100 mL. This permit requirement is consistent with Section 304.224. Nothing in Section 304.224 would require daily sampling. The District's proposed five per week sampling frequency provides twice as many samples as the ten per month sampling frequency that allows use of a geometric mean. The Board finds that the District's requested five days per week sampling for fecal coliform is sufficient to demonstrate compliance with the permitted numeric limits on fecal coliform. The Board further finds that the Agency's condition requiring daily sampling is unnecessary to determine compliance with the Act and Board regulation.

Sampling Frequency for Dissolved Oxygen

The permit issued by the Agency for the O'Brien Plant requires that dissolved oxygen in the plant's discharge shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. R. at 3313. The District does not contest these numeric limits in the permit. O'Brien Pet. at 6. However, the District challenges the permit requirement to conduct continuous sampling for dissolved oxygen at the main outfall. *Id.* The District contends that daily sampling is sufficient.

Dissolved Oxygen Effluent Requirement

To analyze whether the sampling frequency for dissolved oxygen is appropriate, the Board must first review the applicable standard. The Board has set two numeric water quality standards for dissolved oxygen. The general use standard applies to waters of the State for which there is no specific designation and is found at 35 Ill. Adm. Code 302.206. Section 302.206 currently provides:

the dissolved oxygen concentration in the main body of all streams, in the water above the thermocline of thermally stratified lakes and reservoirs, and in the entire water column of unstratified lakes and reservoirs must not be less than the following:

- 1) During the period of March through July,
 - A) 5.0 mg/L at any time; and
 - B) 6.0 mg/L as a daily mean averaged over 7 days.
- 2) During the period of August through February,
 - A) 3.5 mg/L at any time;
 - B) 4.0 mg/L as a daily minimum averaged over 7 days; and
 - C) 5.5 mg/L as a daily mean averaged over 30 days.

35 Ill. Adm. Code 302.206(b).

The Board also has set a numeric water quality standard at 35 Ill. Adm. Code 302.405 for waters designated for secondary contact use and supportive of indigenous aquatic life (“Secondary Contact and Indigenous Aquatic Life”). The above general use standard does not apply to these designated waters. 35 Ill. Adm. Code 302.401. Section 302.405 currently provides

Dissolved oxygen . . . shall not be less than 4.0 mg/l at any time 35 Ill. Adm. Code 302.405.

The 4.0 mg/L dissolved oxygen standard in Section 302.405² applies to waters designated for use as “Secondary Contact and Indigenous Aquatic Life.” Former Section 303.441³ provided the list of waters designated for “Secondary Contact and Indigenous Aquatic Life” use. That list included the receiving water for the O’Brien Plant, described as “North Shore Channel, excluding the segment extending from the North Side Sewage Treatment Works to Lake Michigan.” 35 Ill. Adm. Code 303.441(j) (repealed). Former Section 303.441 also required that “dissolved oxygen in said Channel shall be not less than 5 mg/l during 16 hours of any 24-hour period, nor less than 4 mg/l at any time.” *Id.* The Board has not established an effluent standard for dissolved oxygen under 35 Ill. Adm. Code 304.

The final permit for the O’Brien Plant requires that dissolved oxygen in the plant’s discharge shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. R. at 3313. It appears that this numeric effluent requirement is based on former Section 303.441. *See* Ag. Resp. at 15, n. 4. The District does not contest this numeric requirement in the permit. O’Brien Pet. at 6.

² Further, the Board recently proposed amendments to the dissolved oxygen standard in Section 302.405. Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(D) (Sept. 18, 2014). The proposed standard for North Shore Channel, the receiving waters of the O’Brien Plant, is:

- 1) during the period of March through July, 5.0 mg/L at any time; and
- 2) during the period of August through February:
 - A) 4.0 mg/L as a daily minimum averaged over 7 days, and
 - B) 3.5 mg/L at any time.

³ The Board has been engaged in a multi-phase rulemaking to update water quality standards applicable to Chicago area waterways, including the North Shore Channel. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9. In the course of those proceedings, the Board repealed Section 303.441. Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(A) (Aug. 18, 2011). However, in February 2014, the Board redesignated the waters not subject to general use standards at 35 Ill. Adm. Code 303.230 and 303.235. Water Quality Standards and Effluent Limitations for the Chicago Area Waterways System and Lower Des Plaines River, R 08-9(C) (Feb. 6, 2014).

District Argument

To demonstrate compliance with this numeric effluent requirement, the final permit for the O'Brien Plant requires continuous monitoring for dissolved oxygen. R. at 3313. The District contends that continuous monitoring is not necessary to accomplish the purposes of the Act or the Board's regulations. O'Brien Pet. at 7; Dist. Mot. at 12. The District cites to 35 Ill. Adm. Code 304.104 for support. Section 304.104 provides various methods for proving a violation of a numeric effluent standard. Dist. Mot. at 11. Among other methods, monthly averages must be based on three daily composites and a daily composite must be based on at least three grab samples or three aliquots taken at different times. 35 Ill. Adm. Code 304.104(b). Based on these provisions, the District argues that continuous monitoring of dissolved oxygen is not necessary to accomplish the purposes of the Act and Board regulation. Dist. Mot. at 11. Rather, the District proposes daily grab samples. O'Brien Pet. at 7; Dist. Mot. at 13.

Agency Argument

The Agency first notes Section 304.104 applies to effluent standards contained in Part 304 and Part 304 does not provide an effluent standard for dissolved oxygen. Ag. Resp. at 14-15. Second, the Agency argues that a daily grab sample is insufficient to demonstrate compliance with the 16 hour rule and insufficient to demonstrate compliance with the continuous limit of 4 mg/L at any time. *Id.* at 15. The Agency maintains that data must be collected continuously to determine compliance with the numeric limits in the permit. *Id.* at 16.

District Response

As to continuous monitoring for dissolved oxygen, the District argues that this is a novel requirement and it is not clear what continuous sampling means. Dist. Resp. at 7. For example, the District claims that it does not understand how the Agency will determine compliance without averaging samples. *Id.* The District claims that it "is left to wonder whether it must collect samples every hour, every minute, every second, or every millisecond." *Id.* The District is concerned about potential violations if continuous monitoring equipment fails. *Id.* The District argues that the condition is vague in violation of Illinois law. *Id.* at 7-8. The District contrasts the dissolved oxygen sampling requirements with continuous monitoring provisions in air regulations as well as other sampling requirements in its permits. *Id.* at 9-10.

The District acknowledges that it uses "automated in-line probes for monitoring [dissolved oxygen] in the waterway." Dist. Resp. at 11. The District notes that it follows a monitoring plan for "gauging the general condition of instream water quality (as opposed to compliance with effluent limits)." *Id.* at 11-12. Accordingly, "malfunctions and errors associated with this equipment do not subject the District to any permit violations." *Id.* at 12. The District argues that the Agency has not shown that this technology is feasible, reliable, and suitable for demonstrating compliance. *Id.* at 12-13.

Agency Reply

The Agency responded to the District's contention that the dissolved oxygen provisions in the permit are vague. The Agency argues that the permit is clear and unambiguous in requiring that dissolved oxygen shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. Ag. Reply at 1. The Agency points to Standard Condition 10(d) and 40 C.F.R. Part 136 as providing the method for monitoring dissolved oxygen. *Id.* at 1-2.

Board Finding on Continuous Monitoring for Dissolved Oxygen

As previously discussed, NPDES permits are to include terms and conditions "required to accomplish the purposes and provisions of the Act." 415 ILCS 5/39(b) (2012). Section 309.146(d) of the Board's regulations requires that permits specify "sampling including type, interval, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring." 35 Ill. Adm. Code 309.146(d).

Here, the Agency determined that the appropriate sampling frequency necessary to accomplish the purposes of the Act is continuous sampling for dissolved oxygen at outfall 001. The Agency contends that continuous sampling is necessary to determine compliance with the requirement that dissolved oxygen shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. The Board notes that this requirement is derived directly from the Board's regulations. Further, the District does not contest this numeric requirement in the permit or raise any question as to the meaning of this numeric limit. *See* O'Brien Pet. at 6.

Additionally, the Board sees no ambiguity as to the requirement to conduct continuous sampling. The permit notes that monitoring must be conducted according to test procedures contained under 40 C.F.R. Part 136. R. at 3335 (O'Brien Permit, Standard Condition 10(d)). This federal regulation provides methods for monitoring dissolved oxygen. The permit also allows the District to propose its own test method to the Agency. *Id.* The District also acknowledges that it has been conducting continuous monitoring for dissolved oxygen at locations other than outfall 001. Dist. Resp. at 11. The District prepared a plan for continuous monitoring for dissolved oxygen as early as 2002. R. at 803. The District suggested revisions to this plan during the permit renewal process in December 2010. *Id.* Accordingly, the District's contention that it is unsure of what conduct is prohibited and what is meant by continuous sampling is not supported by the permit language or the record.

The Board finds that the District's requested daily grab sampling is insufficient to demonstrate compliance with the numeric dissolved oxygen permit requirement. The permit requires that dissolved oxygen shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. A daily grab sample will provide data as to the moment the sample is taken but will not provide data on dissolved oxygen levels over any period of time during the course of a day. Accordingly, a daily grab sample cannot demonstrate compliance with the 16-hour limit. A daily grab sample also will not be able to prove compliance with the permit requirement that dissolved oxygen will not be less than 4 mg/L at any time. The Board

agrees with the Agency that continuous monitoring of dissolved oxygen is necessary to determine compliance with the dissolved oxygen levels required in the permit and in Board regulations.

Agency Response to Comments on Draft Permits

The District contends that the Agency inadequately responded to the District's comments on fecal coliform sampling and dissolved oxygen sampling when the Agency issued the final permits on December 23, 2013. Calumet Pet. at 5; O'Brien Pet. at 5, 7; Dist. Mot. at 12.

The Agency record for the reissuance of the permits for the Calumet and O'Brien Plants spans approximately seven years, from August 2006 through December 2013. On August 23, 2006, the District applied to the Agency to renew its NPDES permit for the Calumet and O'Brien Plant. R. at 2182-2335 (Calumet Plant); R. at 2680-2801 (O'Brien Plant). Over the following seven years, the Agency communicated with the District, USEPA, and the public regarding the applications and prepared various drafts of the permits. In November 2009, the Agency provided public notice of draft NPDES permits for the Calumet and O'Brien Plants and allowed for public comments. R. at 3551-3573 (Calumet Plant); 3530-3556 (O'Brien Plant). These drafts did not include a numeric limit or sampling requirement for fecal coliform at the main outfalls for the plants. The draft permit for the O'Brien Plant provided for daily sampling, not continuous monitoring, of dissolved oxygen from the main outfall. These draft permits were the subject of the March 2010 hearings. R. 1326-1327.

Three years after the hearing, on March 8, 2013, the Agency sent revised draft permits for the Calumet and O'Brien Plants to the District. Calumet Pet. at 4; O'Brien Pet. at 2; Ag. Resp. at 4. For the first time, these draft permits included numeric limitations and required daily sampling for fecal coliform. *Id.* The draft NPDES permit for the O'Brien Plant was revised to require continuous monitoring of dissolved oxygen at the main outfall. While the record did not include the March 8, 2013 versions of the draft permits, it is clear that the drafts of the permits considered at the March 9, 2010 public hearing did not include these provisions and the Agency added these provisions after the public hearing.

It is also clear that the District received the March 8, 2013 versions of the draft permits and provided written comments to the Agency on April 1, 2013. R. at 2596-2603 (Calumet Plant); R. at 3288-3295 (O'Brien Plant). As to fecal coliform sampling frequency, the District stated:

The sample frequency for fecal coliform is daily. Currently, all fecal coliform testing at the District is performed at the Stickney WRP. Daily sampling (especially on weekends) will place an additional burden on District staff with respect to transportation and analysis as there is typically a six-hour holding time limitation to begin fecal coliform testing. It is requested that a 5 day per week sampling frequency be allowed in order to reduce the additional burden. A 5 day per week sampling frequency would also be consistent with the other three District WRPs that currently disinfect the effluent. R. at 2597, 3289.

As to dissolved oxygen, the District commented:

The District requests clarification regarding Dissolved Oxygen (DO) reporting. The Permit states that the reporting frequency should be continuous, yet the sample type is grab. This appears to be incompatible and the District requests that the sample frequency and type be consistent with the other parameters. R. at 3289.

The District argues that the Agency inadequately responded to the District's comment on fecal coliform sampling when the Agency issued the final permit on December 23, 2013. Calumet Pet. at 5; O'Brien Pet. at 5. Specifically, the District points to the Agency's statements in its December 23, 2013 letters. *Id.*

The District argues that the Agency was required to provide additional explanation and cites to 35 Ill. Adm. Code 166.192 and 40 C.F.R. § 124.17 for the content requirements of the Agency's explanation. 35 Ill. Adm. Code 166.192 is an Agency regulation setting forth the requirements for the Agency's responsiveness summary. A responsiveness summary is a document prepared by the Agency which addresses the public comments submitted to the Agency concerning the draft NPDES permit. Such a summary must include:

- 1) An identification of the public participation activity conducted;
- 2) Description of the matter on which the public was consulted;
- 3) An estimate of the number of persons present at the hearing;
- 4) A summary of all the views, significant comments, criticisms, and suggestions, whether written or oral, submitted at the hearing or during the time the hearing record was open;
- 5) The Agency's specific response to all significant comments, criticisms, and suggestions; and
- 6) A statement of Agency action, including when applicable the issuance or denial of the permit or closure plan. 35 Ill Adm. Code 166.192.

The Agency prepared such a summary titled "Responsiveness Summary Regarding March 9, 2010 Public Hearing" and dated December 23, 2013. R. at 1321-1365.

In a permit appeal, the Board must base its decision on the record before the Agency to determine if the permit as issued violates the Act or Board regulations. 35 Ill. Adm. Code 105.214; *see also* Village of Sauget, 207 Ill. App. 3d at 974. The Board will not limit the review of the Agency's decision to reasoning articulated in a single document such as the Agency's responsiveness summary. Des Plaines River Watershed Alliance v. Village of New Lenox, PCB 04-88, slip op. at 15 (April 19, 2007), *aff'd* New Lenox, 386 Ill. App. 3d at 382. Rather, as detailed above, the Board has reviewed the entire Agency record in addressing the District's

specific challenges to conditions in the permits. The Board has reviewed the responsiveness summary in analyzing the specific permit conditions challenged by the District and cited to the summary as appropriate. However, the Board declines to review whether the document complies with 35 Ill. Adm. Code 166.192 and the list of required elements for a responsiveness summary. *See Natural Resources Defense Council v. IEPA and Dynegy Midwest Generation, Inc.*, PCB 13-17, slip op. at 44-45 (June 5, 2014). The Board is required to review the entire Agency record in deciding these permit appeals and is not limited to the responsiveness summary when discerning the reasoning for the Agency's determinations.

The Board also notes that the District was given opportunity to comment on the frequency of sampling. The Agency sent revised draft permits for the Calumet and O'Brien Plants to the District on March 8, 2013. O'Brien Pet. at 2; Ag. Resp. at 4. The District provided written comments in response to the Agency on April 1, 2013. R. at 2596-2603 (Calumet Plant); R. at 3288-3295 (O'Brien Plant). The District provided additional comments on June 19 and 20, 2013. R. at 1313.

CONCLUSION

The Board finds that summary judgment is appropriate. Based on this record, the Board finds that the District has met its burden of proving that five-day per week sampling for fecal coliform would not violate the Act or Board regulations. However, the District has not met its burden of proving that daily grab sampling for dissolved oxygen would not violate the Act or Board regulations.

The permits impose a numeric effluent limit requiring that (1) monthly geometric mean not to exceed 200 colony forming units per 100 mL and (2) no more than 10% of the samples collected in a month shall exceed 400 colony forming units per 100 mL (March through November). This permit condition is based on 35 Ill. Adm. Code 304.224 which requires dischargers to meet these numeric limits if the discharger collects ten or more samples per month. Collecting five samples per week results in more than ten per month. Daily grab sampling is unnecessary to demonstrate compliance with this numeric limit and therefore also unnecessary to accomplish the purposes of the Act and Board regulation.

The final permit for the O'Brien Plant requires that dissolved oxygen shall not be less than 5 mg/L during 16 hours of any 24-hour period, nor less than 4 mg/L at any time. A daily grab sample would not be sufficient to demonstrate compliance at all times or during 16 hours of a 24-hour period. Accordingly, the Agency's imposition of continuous monitoring for dissolved oxygen is necessary to accomplish the purposes of the Act and Board regulation.

The Board also declines to review the Agency's implementation of its own rules regarding the content of the responsiveness summary.

ORDER

The Board grants summary judgment in part to the Agency and in part to the District. The Board remands the permits issued for the District's Calumet and O'Brien Plants to require grab sampling five days per week for fecal coliform. The Board closes the docket.

IT IS SO ORDERED.

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2012); *see also* 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motions for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on December 18, 2014, by a vote of 4-0.



John T. Therriault, Clerk
Illinois Pollution Control Board