

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
WATER QUALITY STANDARDS AND)	
EFFLUENT LIMITATIONS FOR THE)	
CHICAGO AREA WATERWAY SYSTEM	)	R08-9(D)
AND THE LOWER DES PLAINES RIVER:	)	(Rulemaking-Water)
Adm. Code Parts 301, 302, 303 and 304)	

NOTICE OF FILING

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

Marie Tipsord, Hearing Officer
 Illinois Pollution Control Board
 James R. Thompson Center
 100 W. Randolph St., Suite 11-500
 Chicago, IL 60601-3218

Stefanie N. Diers, Assistant Counsel
 Illinois Environmental Protection Agency
 1021 N. Grand Ave. East
 P.O. Box 19276
 Springfield, IL 62794

Persons included on the attached
 SERVICE LIST

Please take notice that on November 21, 2014, we filed electronically with the Office of the Clerk of the Illinois Pollution Control Board the attached COMMENTS OF LEMONT REFINERY WITH RESPECT TO FIRST NOTICE OPINION AND ORDER OF SEPTEMBER 18, 2014, a copy of which is served upon you.

CITGO PETROLEUM CORPORATION and
 PDV MIDWEST REFINING, LLC

By: _____



Jeffrey C. Fort
 Irina Dashevsky
 Dentons US LLP
 233 S. Wacker Drive
 Suite 7800
 Chicago, IL 60606-6404

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
WATER QUALITY STANDARDS AND)	
EFFLUENT LIMITATIONS FOR THE)	
CHICAGO AREA WATERWAY SYSTEM	)	R08-9(D)
AND THE LOWER DES PLAINES RIVER:	)	(Rulemaking-Water)
PROPOSED AMENDMENTS TO 35 Ill.)	
Adm. Code Parts 301, 302, 303 and 304)	

**COMMENTS OF LEMONT REFINERY WITH RESPECT TO SEPTEMBER 18, 2014
FIRST NOTICE OPINION AND ORDER**

CITGO Petroleum Corporation and PDV Midwest, LLC (collectively, the “Lemont Refinery”) submits this Response with respect to issues relating to the proposed water quality standards in this proceeding and specifically to the Proposed Regulations contained in the September 18, 2014 First Notice Opinion and Order. The Lemont Refinery generally supports the proposed regulations and action proposed by the Board in its First Notice with respect to the Chicago Sanitary and Ship Canal and appreciates the Board’s diligence in coping with the large and extended record in this docket and this proceeding. In this comment we will focus on two key issues¹:

- (1) the creation of a separate rule for the Chicago Sanitary and Ship Canal with respect to chlorides and the seasonal chloride standard proposed for the Ship Canal; and
- (2) the Board’s proposal to address the application of the mixing rule with respect to chloride through the use of Best Management Practices and an additional regulation in the NPDES rules to implement BMPs for chlorides.

¹ The Board has addressed a third issue of concern to the Lemont Refinery by proposing language for the mercury HHS criteria which reflects testimony submitted by the Lemont Refinery and as to which the Agency modified its proposed language. See Opinion at 183, 230. That language is acceptable to the Lemont Refinery.

We believe that the record amply supports the Board's proposal with respect the first topic. With respect to the second, the record also overwhelmingly supports the use of BMPs as a tool to avoid the draconian affects of the mixing zone rule with respect to chlorides in effluent dominated waters such as the CSSC, and particularly the lower Ship Canal at the Regulated Navigation Area. For the latter issue, we are suggesting language which would slightly modify the Board language based on the evidence in the record.²

I. THE BOARD CORRECTLY CHOSE TO CATEGORIZE THE CHICAGO SANITARY AND SHIP CANAL ("CSSC") AS A DISTINCT WATER BODY FOR WHICH SEPARATE WATER QUALITY STANDARDS WERE APPROPRIATE. THE WINTER-TIME CHLORIDE STANDARD FOR THE SHIP CANAL IS APPROPRIATE AND AMPLY SUPPORTED BY THE RECORD.

We support the Board's proposal to treat the Chicago Sanitary and Ship Canal separately from the other bodies of water. Our initial questioning of the Agency and then our first testimony in this matter specifically asked for distinctions to be made among the various water bodies included in this proposed rule as first filed seven years ago. For the CSSC the Board has accepted that concept. Indeed, with respect to chlorides, the decision and the proposed seasonal standard is completely justified and appropriate. By focusing on the specific conditions of a stream segment, an appropriate water quality standard can be calculated, as we did during the merit hearings for chlorides.

A substantial amount of testimony focused on the CSSC and how it differed from other water bodies. That testimony included that of Jim Huff (see Exhibit 289). The extensive

² The Board declined to consider or reconsider its prior decisions with respect to use designations in Docket A. The Lemont Refinery supports that decision. U.S.EPA or IEPA can always make a proposal for any regulatory change before the Board, like any other member of the public, and then support that proposal with evidence and testimony. Absent some formal process which is allowed by the Environmental Protection Act, we submit that the existing decisions on recreational uses are the law and the designated uses should remain.

testimony submitted by the Lemont Refinery, and especially with respect to chloride levels in the CSSC, is well documented by the Board's Opinion at First Notice and we will not repeat it here.³

The Lemont Refinery withdraws most of its cooling water from the CSSC and then discharges that water, together with process and stormwater, after undergoing treatment, to the CSSC. The Lemont Refinery has an extensive data base of elevated TDS (and chloride) levels resulting from snow melt run-off, extending for nearly a decade. The CSSC is, without doubt, an "effluent dominated" stream, receiving treated wastewater from at least four MWRDGC treatment plants,⁴ as well as stormwater run-off from most of Cook County and parts of DuPage County, before reaching the Lemont Refinery intake.

The Lemont Refinery has used and shared its information on the CSSC with the Board, the Agency and the public, both in the prior variances as well as in this rulemaking proceeding. When the Board took action to adopt the Aquatic Life Use B, we applied that use to the CSSC in order to calculate an appropriate water quality standard for chlorides in the winter months. The Lemont Refinery retained Roger Klocek of Huff & Huff, Inc. to perform a stream survey to collect relevant biological information, from which a chloride standard could be calculated. Huff & Huff collected available data with respect to fish and other aquatic life in the CSSC and supplemented that data with in-stream sampling. The in-stream sampling was done both immediately above and immediately below the Regulated Navigation Area (and hence both immediately upstream and downstream of the intake and the discharge point for the refinery). Those findings were then applied to the CSSC by using the USEPA Recalculation Procedure⁵ to

³ Board Opinion of 9/18/2014 at 70-78; 115-130.

⁴ Stickney, Lemont, Northside, and Calumet wastewater treatment plants.

⁵ See Delos, Charles G. 2013. Revised Deletion Process for the Site-Specific Recalculation Procedure for Aquatic Life Criteria. EPA-823-R-13-001.

arrive at recommended chloride seasonal water quality standards of 990 mg/L (acute) and 620mg/L (chronic).⁶

That calculation and the supporting information and analyses, were presented to the Board in the December, 2013 hearing. While few questions were asked of Mr. Klocek at that hearing, both IEPA and USEPA submitted comments, the focus of which was on whether certain species should be added to the calculation. The Lemont Refinery and Mr. Klocek addressed each of those items in responsive comments.⁷ In those comments, the Lemont Refinery responded to each of the IEPA and USEPA comments, and particularly with respect to the species which should, or should not be, included in the Recalculation Procedure.

The Board's First Notice Opinion provides an overview of the comments, the analyses and the Board's findings:

“The Board finds that Citgo/PDV properly employed USEPA's 2013 recalculation procedures to derive scientifically defensible site-specific acute and chronic water quality criteria for chloride in the CSSC as USEPA stated could be done. PC 1401 Enc. 1 at 1. The Board finds that Citgo/PDV adequately responds to each of IEPA's and USEPA's concerns in the record to provide supplemental evidence and clarification of the site-specific derivation. The Board notes that Citgo/PDV's site-specific criteria derivation also underwent external peer review. 12/17/13 Tr. at 171.

The Board observes that Citgo/PDV's site-specific criteria derivation was specific to the CSSC and the winter months, and did not apply to all waters designated ALU B, in particular Brandon Pool. For all other segments in CAWS and LDPR, the Board notes that no other site-specific criteria were proposed or derived consistent with USEPA's 2013 recalculation procedures.”

Board Opinion at 192.

⁶ Testimony of Roger Klocek, Exhibit 491 at 9.

⁷ PC 1410, Attachment I.

The Lemont Refinery did not stop investigating the biota in the CSSC when the record closed last December. Instead, it again commissioned Huff & Huff and Roger Klocek to collect more data, including on *Ceriodaphnia* and on *Rotifers*. That information is included in Exhibit A hereto, a report from Mr. Klocek. Exhibit A, Table 1 reports the sampling results for plankton conducted during the last year, and particularly with respect to sampling events in May, June, July, August, September, October and November, 2014. No *Ceriodaphnia* were found, even in the summer months and even at a sampling location closer to the confluence of the Ship Canal with the Des Plaines River. (The former sampling points were immediately upstream and downstream of the Regulated Navigation Area, hence this sampling location was more likely to show the presence of *Ceriodaphnia*). With respect to *Rotifers*, certain species were found in the summer months at the new sampling station; but chloride toxicity information is lacking for that species. Lacking species specific information, the appropriate calculation procedure would be to include all available species information with the genus. Because some rotifers are quite tolerant of chlorides (indeed, one thrives in sea water), including rotifers in the calculation procedure would not be meaningful. See Exhibit A at 2. Moreover, as the data shows, the relative amount of *Rotifers* declines as the temperatures fall, with very few organisms being found after August.

The water quality standards calculated by Klocek and proposed by the Board to be adopted for the CSSC during winter months are clearly appropriate. The CSSC does not support the same diversity of species as do other bodies of water in Illinois, particularly natural streams. If EPA believes that its recalculation procedure and formula is scientific, upon further reflection we would hope it would accept the proposed values for the CSSC; indeed it appears that the environmentalists do not contest accept the recalculation effort. The EPA recalculation

procedures provided a useful framework for analysis. Applying this same framework to other stream reaches may be appropriate.

II. THE BOARD SHOULD CLARIFY ITS PROPOSAL WITH RESPECT TO BMP CONDITIONS FOR CHLORIDES IN NPDES PERMITS.

After reviewing the testimony presented by Citgo and others with respect to mixing zone issues in the effluent dominated CSSC and the usefulness of BMPs for reducing chlorides in snow melt, the Board proposed an amendment to the Illinois NPDES regulations. The Board specifically asked for comment:

The Board welcomes comments on the proposed first notice language for 35 Ill. Adm. Code 309. In particular the Board requests comments on how the provision of 40 CFR 122.44(k) can be used to achieve chloride effluent limitations and standard, especially when water quality standard are exceeded, to address compliance and mixing zone issues for dischargers such as Citgo/PDF, ExxonMobil, the District and entities that discharge once through cooling water. First Notice Opinion at 203.

So we respond.

The Board has proposed an addition to 35 IAC 309.141 **Terms and Conditions for NPDES Permits**. We fear that the Agency (and/or USEPA) would insist that an additional effluent limitation for chlorides would also be necessary with respect to water quality standards, whatever those standards might eventually be. (see 35 IAC 309.141 (d)).⁸ Of course, that would defeat the very purpose in pursuing BMPs for chlorides from snow melt run-off in the Chicago region. In the case of the Lemont Refinery, the following sources of chloride are discharged from the main outfall:

⁸ “d) Any more stringent limitation, including those: 1) necessary to meet water quality standards...” 35 IAC 309.141(d)

- 1) chlorides present in the intake from upstream sources;
- 2) stormwater run-off from the refinery property;
- 3) stormwater run-off from upstream residential and unaffiliated industrial sources at higher elevations; and
- 4) chlorides from the refining operations.

The rule as proposed might be applied so that, even if the Lemont Refinery were implementing chloride BMPs, its NPDES permit might include a limitation on chloride that penalizes the refinery for those upstream discharges of chloride.

The rule as proposed does not take into account the applicability of other NPDES rules (such as 309.141(d)) with respect to application of water quality standards to point sources. We urge the Board to revise the proposed rule to specifically address the terms of 309.141(d) which might apply until the time that a waste load allocation is adopted and implemented. To address the time period prior to adoption of any TMDL and to make clear that snow-melt run-off conditions are a qualifying event for use of BMPs in NPDES permits as well as storm water permits, we suggest the following revisions to the Board's proposed language:

(i) Until the adoption of total maximum daily loads under Section 303(d) of the CWA and notwithstanding the requirements of section 309.141(d) prior to such becoming effective, best management practices (BMPs) to control or abate the discharge of chloride when:

(1) Authorized under section 402(p) of the CWA for the control of storm water dischargers;

(2) Numeric effluent limitations are infeasible; or

(3) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA; or

(4) Applicable water quality standards are exceeded in the receiving stream due to snow melt run-off from upstream point and/or non-point sources.

The record is replete with justifications for use of a BMP mechanism to address elevated chlorides in snow melt run-off and no one has raised any objection to their appropriateness. Snow-melt run-off in the Chicagoland area is primarily a stormwater issue, but at a slower pace than an immediate storm event. The stormwater rules and the point source discharge rules should apply the same BMP requirements for chloride use.⁹

Conclusion

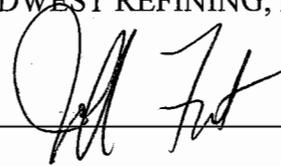
The Lemont Refinery respectfully requests: the Board adopt the Winter Chloride Criteria for the CSSC, and the mercury HHS as proposed in the First Notice Opinion; and adopt the proposed BMP chloride rule for NPDES dischargers, with the revisions as requested herein

Dated: November 21, 2014

Respectfully submitted

CITGO PETROLEUM CORPORATION and
PDV MIDWEST REFINING, LLC

By: _____



Jeffrey C. Fort
Irina Dashevsky
Dentons US LLP
233 S. Wacker Drive
Suite 7800
Chicago, IL 60606-6404

⁹ The Environmental Groups were supportive of our position. "We welcome Citgo's suggestion that best management practices be implemented for control of chlorides by all of the entities adding chloride to waters suffering from chloride pollution." PC 1412 at 14.

EXHIBIT A



environmental engineers
and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: <http://huffnhuff.com>

Date: November 17, 2014

To: Mr. Larry Tyler

From: Roger Klocek

Subject: Interim Plankton Results

Plankton collections were made in July and November, 2013 in the Chicago Sanitary & Ship Canal (CSSC) to determine the presence of *Ceriodaphnia* spp., a water flea that is rarely found in the CSSC, and which has a low tolerance to chloride. If *Ceriodaphnia* are present in the CSSC during the winter months, then the chloride standards re-calculation procedure should include this species. Monthly plankton collections were made starting in May of 2014 and are continuing through July of 2015 to better understand when *Ceriodaphnia* are present in the CSSC.

The 2013 plankton samples were collected by boat upstream and downstream of the Lemont facility due to the presence of the Electric Fish Barrier and U.S. Coast Guard Regulated Navigation Zone located in the CSSC at the Lemont facility. Plankton sampling was shifted to Lockport, Illinois, approximately 4 miles downstream (River mile 292.5) of the Lemont Refinery. The switch in sampling locations was made due to an increased diversity of macroinvertebrates found at Lockport, compared to other CSSC locations, allowing for presumed increased zooplankton diversity. The Lockport sampling location is convenient because it does not require the use of a boat to collect plankton samples. Figure 1 depicts the location of the Lemont Refinery and the Lockport collection site.

Ceriodaphnia Results

Table 1 presents the plankton collections to date. No *Ceriodaphnia* have been collected during any of the 2013 or 2014 sampling events. A different water flea, *Bosmina longirostris* is the dominant water flea in the CSSC, with presence in every month except May of 2014. Other water fleas belonging to the genus *Daphnia* were collected only during June, 2014. *Chydoris* water fleas were collected in every month except August, September and October, 2014.

One of the most thorough plankton studies done on Illinois waterways was conducted on the Illinois River at Havana, Illinois, where weekly plankton samples were taken (Kofoid, 1908). *Ceriodaphnia* were the second most abundant water flea found but had a spotty temporal distribution. Kofoid (op cite.) found no *Ceriodaphnia* in January, February, October, or November. Greater than 99% of the more than 79,000 *Ceriodaphnia* per cubic meter of water

were collected during May and June. The months of March, April, July and August collections of *Ceriodaphnia* accounted for less than one percent of the *Ceriodaphnia* collected throughout the year (Kofoid, op cite.). While water conditions have changed since Kofoid's study, his findings demonstrate how seasonal the peak of *Ceriodaphnia* production can be. Caution should be used in applying the historic data to the CSSC as the CSSC has higher winter temperatures than the Illinois River, which could induce water flea production later in the year than is shown in Kofoid's study. Kofoid's Havana collection site was approximately 174 river miles downstream of the present day Lockport collection site.

Rotifer Results

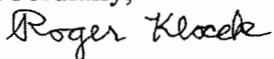
Rotifers are known to overwinter in thick shelled, protective eggs that are tolerant of physical and chemical environmental extremes. The USEPA indicated the winter chloride calculations should include the rotifer genus *Brachionus* spp. because they are a resident species. The genus of rotifers, *Brachionus* spp. are known to be present in the CSSC from previous studies, and have also been collected in the H&H 2014 plankton collections.

A study conducted on multiple stations of the CAWS and Illinois River by Havera et al. (1980) contains sections on plankton findings including rotifers. Havera et al. list ten species of rotifers in the genus *Brachionus* found during their studies, including one oligohaline variety, *B. plicatilis*. The rotifer *B. plicatilis* was found by Havera in the LaGrange Pool, Dresden Lock and Dam, and Starved Rock Pool. Butler (2013) has found *Brachionus* sp. in the CSSC during 2010-2012. *Brachionus* and some of the other rotifers can be difficult to separate into species due to the morphological plasticity within the species (Ansari et al. 2014, Athibi et al. 2013).

As no authority has identified to species the *Brachionus* spp. found in the CSSC, the rotifers present in the CSSC would likely be a mixture of species which includes *B. plicatilis*. The rotifer *B. plicatilis* is known to actively reproduce in seawater salinities of up to 60,000 milligrams per liter (Lowe et al. 2007). Standard seawater is considered to have a salinity of 34,500 milligrams per liter, with a chloride content of 18,980 milligrams per liter (Sverdrup et al. 1942).

All members of a genus used in a site specific re-calculation should be included in the calculations to obtain a *Genus Mean Acute Value* (Stephen et al. 1985). Inclusion of *B. plicatilis* would yield a very high genus mean acute value, making inclusion of rotifers not essential for a re-calculation of winter chloride standards for the CSSC.

Cordially,



Roger Klocek
Senior Biologist

Works Consulted

- ANSARI, Samaneh., Alireza Shayestehfar and Seyed Mehdi Talebi 2014. The Inter and Intrapopulation Variations in Two Species of Genus *Brachionus* (Rotifera), in Iran: An Ecological Review. *European Journal of Experimental Biology*, 4(1):420-430
- ATHIBAI, Sujeephon., Hendrik SEGERS, and La-orsri SANOAMUANG. 2013. Diversity and Distribution of Branchionidae (Rotifera) in Thailand, with a Key to the Species. *J. Limnol.*, 72(s2): 345-360.
- Butler, Steve. 2013. Personal communication. Unpublished plankton data 2010-2012 (excel) and figures collected by the Illinois Natural History Survey.
- Havera, Stephen P. Frank C. Bellrose, H. Kathleen Archer, Fred Pavaglio, Jr., Donald W. Steffek, Kenneth S. Lubinski, Richard E. Sparks, Warren U. Brigham, Larry Coutant, Stephen Waite, Dee McCormick. 1980. *Projected Effects of Increased Diversion of Lake Michigan Water on the Environment of the Illinois River Valley*. Illinois Natural History Survey. Urbana, IL.
- Kofoed, C.A. 1908. The Plankton of the Illinois River 1894-1899, with Notes Upon the Hydrography of the Illinois River and its Basin. Part II. Constituent Organisms and Their Seasonal Distribution. *Bulletin of the Illinois State Laboratory*. Vol. VIII. Article I. pp. 1-361.
- Lowe, C.D., S. J. Kemp, C. Díaz-Avalos, D. J. S. Montagnes. 2007. How Does Salinity Tolerance Influence the Distributions of *Brachionus plicatilis* sibling species? *Mar Biol* 150:377-386.
- Stephen, Charles E., Donald I. Mount, David J. Hansen, John R. Gentile, Gary A. Chapman, and William A. Brungs. 1985. *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*. PB85-227049. Washington, D.C.
- Sverdrup, H. U., Martin W. Johnson, Richard H. Fleming. 1942. *The Oceans Their Physics, Chemistry, and General Biology*. Prentice-Hall, Inc.

TABLE 1.
 PLANKTON COLLECTIONS NEAR LEMONT and LOCKPORT, ILLINOIS 2013-2014
 NUMBERS OF ORGANISMS PER LITER

Organism Types	Upstream Lemont July 12, 2013	Downstream Lemont July 12, 2013	Lockport Dock Nov. 18, 2013	Lockport Dock May 5, 2014	Lockport Dock June 6, 2014	Lockport Dock July 9, 2014	Lockport Dock Aug. 22, 2014	Lockport Dock Sept. 23, 2014	Lockport Dock Oct. 29, 2014	Lockport Dock Nov. 14, 2014
Cladocera - Water Fleas										
Bosmina longirostris	152.6	172.6	0.8	0	33.9	28.1	10.5	1.7	0	0
Diaphanosoma sp.	5.1	3.5	0	0	0	0	0	0.1	0	0
Chydorus cf sphaericus	present	present	present	present	1.0	4	0	0	0	0
Daphnia spp.	0	0	0	0	1.0	0	0	0	0	0
Ceriodaphnia spp.	0	0	0	0	0	0	0	0	0	0
Copepods										
Diacyclops thomasi (bicuspidatus)	17.5	22.0	0	....	0	7.9	6.7	....	0	0
Cyclopoid copepods (unidentified)	....	....	0	1.1	0	0	....	0	0	0
unidentified copepod nauplii	0	0	0	0	present	0	0.3	1.2	0.2	0.3
Rotifers										
Brachionus sp.	net too large	net too large	net too large	1	present	common	13	2	4	0
Keratella sp./ and other rotifers	....	....	....	....	abundant	present	27	....	5	3.3
Other Associates										
aquatic mites - (Hydrachnida)	present	present	0	present	0	0	0	0	0	0
Plumatella sp. cysts (Bryozoa)	common	common	common	present	present	present	0	0	0	0
Number Diatom species (minimum)	net too large	net too large	net too large	present	present	0	7	present	7	5
Number algae (non-diatom) species	net too large	net too large	net too large	present	present	present	9	abundant	5	5
Ostracods (Ostracoda-Seed Shrimp)	....	....	....	....	0.0	abundant	0.2	0.2	present	present
Sponge spicules**	....	....	....	....	0	0	common	present	abundant	0
Arcella sp., shelled ameba	....	....	....	....	0	present	abundant	abundant	abundant	abundant
fish larvae (Cyprinidae)	....	....	....	....	0	0	present	0	0	0
Asiatic clam veligers/newly transformed	....	....	....	....	....	....	present	present	0	0
zebra mussels ** Dreissena spp.	....	....	....	....	0	0	present	0	0	0
zebra mussel eggs/(veligers)	....	....	....	....	....	....	abundant	present	common	0
snails** Physella gyrina	....	....	....	....	0	0	present	0	0	0
Amphipods, Hyalella sp.	0	0	0	0	0	0	0	0	0	1.6
Physical & Gear										
Water Temperature °F	53.5	53.5	52	51	77	78	77	72	65	55.6
Dissolved Oxygen in mg/L	7.5	7.5	...	....	4.5	6.1	6.5	5.4	9.3	9.3
Conductivity as us/cm	....	....	....	....	....	....	....	560	530	1110
pH in pH units	....	....	....	....	....	....	....	7.8	7.9	7.6
Net mesh	153 micron	153 micron	153 micron	55 micron	55 micron	55 micron	55 micron	55 micron	55 micron	55 micron
Milliliters sample examined	2	2	5	5	2	2.5	2	2	2	6
Tow in feet	4,000	4,000	500	250	500	90 liters	1000	1500	1500	200 liters
Cubic feet processed*	891	891	111.4	55.7	111.4	1.4	223	334	334	3.1
approximate liters processed	25,230	25,230	3,155	1,569	3,155	90	6308	9462	9462	200
depth of collection in feet	1 to 8	1 to 8	1 to 2	1 to 2	1 to 2	1 to 2	1 to 3	1 to 3	1 to 3	1 to 3

Key: Present = 1-9 organisms, Common = 10-50 organisms, Abundant => 51 organisms

Counts based on Motodo Plankton Splitter results, readings of one milliliter of water, duplicated then averaged and reported as nearest tenth (0.1) of number

*0.262 ft² diameter x 0.85 efficiency of water passage x length of tow

** picked up in net by scraping sheet pile when lifting net from water

Lockport Dock located at RM 292.5, at 41.589813°, -88.067277°, approximately 1.7 miles upstream of Lockport Lock and Dam

Notes: July 9, 2014 - No Diatoms present in collection, few copepods present, many Cladoceran valve fragments present but fragments (from previous dead cladocerans) are unidentifiable



FIGURE 1 CSSC (Blue) with Lemont Facility and Lockport Collection Site

CERTIFICATE OF SERVICE

I, the undersigned, certify that on November 21, 2014, I served electronically the attached
COMMENTS OF LEMONT REFINERY WITH RESPECT TO FIRST NOTICE OPINION
AND ORDER OF SEPTEMBER 18, 2014 upon the following:

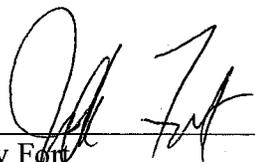
John Therriault, Clerk
Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601

and by U.S. Mail, first class postage prepaid, to the following persons:

Marie Tipsord, Hearing Officer
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Stefanie N. Diers, Assistant Counsel
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

The participants listed on the attached
SERVICE LIST



Jeffrey Fort

SERVICE LIST

Frederick M. Feldman, Esq.
Margaret T. Conway
Ronald M. Hill
Metropolitan Water Reclamation District
100 East Erie Street
Chicago, IL 60611

Roy M. Harsch
Drinker Biddle & Reath
191 N. Wacker Drive, Suite 3700
Chicago, IL 60606-1698

Claire Manning
Brown Hay & Stephens LLP
700 First Mercantile Bank Blvd.
205 S. Fifth St., P.O. Box 2459
Springfield, IL 62705-2459

Fredric Andes
Erika Powers
Barnes & Thornburg
1 N. Wacker Dr., Suite 4400
Chicago, IL 60606

James L. Daugherty-District Manager
Thorn Creek Basin Sanitary District
700 West End Avenue
Chicago Heights, IL 60411

Jessica Dexter
Environmental Law & Policy Center
35 E. Wacker Dr., Suite 1600
Chicago, IL 60601

Robert VanGyseghem
City of Geneva
1800 South St.
Geneva, IL 60134-2203

Matthew J. Dunn-Chief
Susan Hedman
Office of the Attorney General
Environmental Bureau North
69 West Washington Street, Suite 1800
Chicago, IL 60602

Bernard Sawyer
Thomas Grant
Metropolitan Water Reclamation District
6001 W. Pershing Road
Cicero, IL 60650-4112

Lisa Frede
Chemical Industry Council of Illinois
1400 E. Touhy Ave.
Suite 110
Des Plaines, IL 60018

Katherine D. Hodge
Matthew C. Read
N. LaDonna Driver
Hodge Dwyer & Driver
3150 Roland Avenue
P.O. Box 5776
Springfield, IL 62705-5776

Erin L. Brooks
Bryan Cave LLP
211 North Broadway, Suite 3600
St. Louis, MO 63102

Keith Harley
Elizabeth Schenkier
Chicago Legal Clinic, Inc.
211 West Wacker Drive, Suite 750
Chicago, IL 60606

Frederick D. Keady, P.E.-President
Vermillion Coal Company
1979 Johns Drive
Glenview, IL 60025

Cindy Skrukud
Jerry Paulsen
McHenry County Defenders
110 S. Johnson Street, Suite 106
Woodstock, IL 60098

Mark Schultz
Navy Facilities and Engineering Command
201 Decatur Avenue Building 1A
Great Lakes, IL 60088-2801

W.C. Blanton
Husch Blackwell LLP
4801 Main St., Suite 1000
Kansas City, MO 64112

Irwin Polls
Ecological Monitoring and Assessment
3206 Maple Leaf Drive
Glenview, IL 60025

Dr. Thomas J. Murphy
2325 N. Clifton St.
Chicago, IL 60614

James E. Eggen
City of Joliet,
Director of Public Works & Utilities
150 W. Jefferson St.
Joliet, IL 60431

Stacy Meyers-Glen
Openlands
25 E. Washington, Suite 1650
Chicago, IL 60602

Jack Darin
Sierra Club, Illinois Chapter
70 E. Lake St., Suite 1500
Chicago, IL 60601-7447

Lyman Welch
Alliance for the Great Lakes
150 N. Michigan Ave.
Suite 700
Chicago, IL 60601

Kay Anderson
American Bottoms RWTF
One American Bottoms Road
Sauget, IL 62201

James Huff-President
Huff & Huff, Inc.
915 Harger Road, Suite 330
Oak Brook, IL 60523

Susan Charles
Thomas W. Dimond
Ice Miller LLP
200 West Madison Street, Suite 3500
Chicago, IL 60606

Kenneth W. Liss
Andrews Environmental Engineering
3300 Ginger Creek Drive
Springfield, IL 62711

Vicky McKinley
Evanston Environment Board
223 Grey Avenue
Evanston, IL 60202

Albert Ettinger
Environmental Law & Policy Center
53 W. Jackson, Suite 1664
Chicago, IL 60604

Kristen Laughridge Gale
Susan M. Franzetti
Nijman Franzetti LLP
10 South LaSalle St.
Suite 3600
Chicago, IL 60603

Ann Alexander, Senior Attorney
Natural Resources Defense Council
20 N. Wacker Drive, Suite 1600
Chicago, IL 60606

Bob Carter
Bloomington Normal Water Reclamation
P.O. Box 3307
Bloomington, IL 61711

Jared Policicchio
Chicago Department of Law
30 N. LaSalle Street
Suite 1400
Chicago, IL 60602

833442381V-8