

Electronic Filing - Received, Clerk's Office, January 21, 2010

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE OF FILING

TO:

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

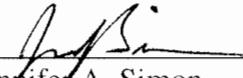
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PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board Stepan Company's Response in Support of Citgo Petroleum's Motion for Hearings and Stepan's independent Motion for Hearings on the Impact of Asian Carp on the Proposed Aquatic Life Use Designations, a copy of which is herewith served upon you.

STEPAN COMPANY


Jennifer A. Simon

Date: January 21, 2010

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RESPONSE IN SUPPORT OF CITGO PETROLEUM’S MOTION FOR HEARINGS
AND
MOTION FOR HEARINGS ON THE IMPACT OF ASIAN CARP ON THE PROPOSED
AQUATIC LIFE USE DESIGNATIONS

Stepan Company (“Stepan”) submits this Response in Support of Citgo Petroleum Corporation’s Motion for a Hearing on the Impact of the Litigation Before the United States Supreme Court Relating to the Migration of Asian Carp Through the Chicago Sanitary and Ship Canal (“Citgo’s Motion”). Stepan Company further moves for hearings on the impact of the presence of Asian carp in the Upper Dresden Island Pool (“UDP”) and other impacted waterways that are the subject of this proceeding on the aquatic life uses proposed by the Illinois Environmental Protection Agency (“IEPA”).

1. Stepan incorporates Citgo’s Motion by reference and concurs with its recommendation that hearings be held on the impact of the United States Supreme Court litigation relating to the possible migration of Asian carp through the Chicago Sanitary and Ship Canal to Lake Michigan. While the Supreme Court denied the preliminary injunction motion of the State of Michigan on January 19, 2010, the petitions of Michigan and other States seeking mandatory injunctive relief impacting the operation and maintenance of various waterways at issue in this proceeding remain pending and subject to further briefing and action by the Supreme Court. In addition, the Illinois Department of Natural Resources (“IDNR”), the U.S.

Army Corps of Engineers (the “Corps”) and other governmental members of the Asian Carp Rapid Response Workgroup (the “Asian Carp Workgroup”) continue to take actions impacting or potentially impacting the uses of the waterways at issue in this case, which actions are relevant to the legal and factual determinations the Board must make.

2. Stepan further moves for the Board to conduct hearings that go beyond the scope of those requested in Citgo’s Motion. Citgo’s Motion understandably focuses on the area of the Chicago Area Waterway System (“CAWS”) near its plant and the immediate impact of the pending legal proceedings in the Supreme Court. Regardless of the outcome of those proceedings, the presence and continued migration of Asian carp¹ in the UDP and other waters at issue in this case call into question the current viability and the continued sustainability of IEPA’s aquatic life use proposals and, possibly, its recreational use proposals, too. The presence of Asian carp in the UDP and other waterways is a human caused condition that is entirely appropriate to be considered as a reason for designating a water use below the Clean Water Act goals. *See* 40 C.F.R. § 131.10(g)(3). Moreover, States must consider the impact of a water use designation on downstream waters, 40 C.F.R. § 131.10(b), and it is equally prudent to consider the impact of use designations on adjacent or nearby upstream waters, too.

3. While not exclusive, there are a number of subjects on which the Board should receive testimony. For example, the Board should understand the basic facts about the extent of migration of Asian carp in the waters at issue in this case and the likely long-term impact of Asian carp on the biological diversity and abundance of fish species and other aquatic life currently present in those waters. The Board should also hear testimony on whether IEPA or

¹ For purposes of this response and motion, we have used the term Asian carp to refer collectively to the silver carp, the bighead Asian carp, and the black carp. Each of these distinct species is considered an invasive species that threatens native fish and other aquatic life. *See* <http://www.asiancarp.org/rapidresponse/faq.htm> (last accessed January 20, 2010).

other responsible government agencies are taking any steps to protect the UDP and other waters downstream of the Chicago Sanitary and Ship Canal from Asian carp. It would also be relevant to understand whether the more stringent water quality standards proposed by IEPA will achieve the desired species diversity and abundance given the presence and likely future migration of Asian carp.

4. Information that has recently received significant public disclosure shows that Asian carp are likely present in the UDP. Genetic testing performed by the Corps has confirmed the presence of Asian carp in the Lower Des Plaines River. *See* Review Plan, Chicago Sanitary and Ship Canal Aquatic Nuisance Species Dispersal Barriers Efficacy Study, Cook, DuPage, and Will Counties, September 30, 2009, at p. 4.

(http://www.lrc.usace.army.mil/planning/EfficacyStudyReviewPlan_Final_Revision_PUB.pdf (last accessed January 20, 2010)). Silver carp, one variety of Asian carp, have also been spotted in the Des Plaines River below the Lockport Lock & Dam. *See* <http://www.asiancarp.org/rapidresponse/images/CarpBarrierMapweb.jpg> (last accessed January 20, 2010). In addition, a bighead Asian carp was found in the Chicago Sanitary and Ship Canal in December 2009. *See* Illinois Dept. of Natural Resources Press Release, dated December 3, 2009 (<http://www.asiancarp.org/rapidresponse/documents/AsiancarpfoundinCSSC.pdf> (last accessed January 20, 2010)).

5. Asian carp's presence in the UDP and the Lower Des Plaines River is not currently being controlled. The only barriers installed to prevent Asian carp's movement in the waterways in and near Chicago are in the Chicago Sanitary and Ship Canal. *See* Dispersal Barrier Efficacy Study, Interim I – Dispersal Barrier Bypass Risk Reduction Study & Integrated Environmental Assessment by the US Army Corps of Engineers, January 6, 2010

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(http://www.lrc.usace.army.mil/pao/ANS_DispersalBarrierEfficacyStudy_Interim_I_FINAL.pdf
(last accessed January 20, 2010)).

6. Although the pending Supreme Court litigation has emphasized the importance of the Chicago Sanitary and Ship Canal as the Asian carp's primary entryway into the Great Lakes, the Des Plaines River is also an important factor. Studies have shown that Asian carp can pass overland from the Des Plaines River into the Chicago Sanitary and Ship Canal during flooding events. *Id.* Accordingly, the Asian carp's presence in the Lower Des Plaines River may ultimately become a factor in the Supreme Court and other future related litigation. Should any of the Corps' proposed solutions to the overland transport issue become necessary, the aquatic ecosystems, banks, and even flow of the Des Plaines River could be affected. *See id.*, at pp. 3-4 (these pages are attached as Exhibit A). This could alter the framework that currently forms the foundation of the IEPA's Use Attainability Analysis.

7. Moreover, even aside from the litigation, Asian carp have had a significant and exponential effect on some local ecosystems. Their ability to spawn multiple times during each season and consume up to 40% of their body weight in food each day enables them to disrupt native food chains in some water bodies. *See* the Asian Carp Management Invasive Species Coordination Web Site at <http://www.asiancarp.org/rapidresponse/faq.htm> (last accessed January 20, 2010). This information at least raises the possibility that Asian carp might negatively impact the native habitat, ecosystem, and aquatic life diversity of the UDP if no actions are taken to prevent its migration to those waters.

8. IEPA has emphasized the UDP's "diverse aquatic life" and, accordingly, proposed that the UDP be "Aquatic Life Use Waters ... capable of maintaining aquatic life populations consisting of individuals of tolerant, intermediately tolerant, and intolerant types..."

IEPA's Statement of Reasons, p. 83, 48; *see also* Prefiled Testimony of Scott Twait, p. 12. The Board needs to understand what impact the presence of Asian carp in the UDP will have on that diverse aquatic life and the species and species abundance that may (or may not) survive the presence of the Asian carp.

9. To date, IEPA apparently has not considered the impact of invasive species in defining the aquatic life use designation of the waterways at issue in this rulemaking. In its testimony, IEPA conceded it did not even know whether invasive species were a factor relevant to the Use Attainability Analysis. *See* Testimony of Robert Sulski, January 29, 2008, p. 83:15-22. IEPA also admitted it had not considered the impact of improved water quality on the migration of invasive species toward Lake Michigan. *See* Testimony of Scott Twait, January 29, 2008, p. 100:6-14.

10. Because of the significance of the Asian carp threat and the failure, to date, to consider its interplay with the proposed water quality standards, additional hearings and testimony on this issue are necessary for the Board to make an informed decision on the proposed water quality uses and standards. The filing of the Supreme Court proceedings, the actions of the Asian Carp Workgroup and the apparent presence of Asian carp in the UDP (which is the segment of the Lower Des Plaines River into which Stepan discharges) have only recently come to Stepan's attention through the public media. Failure to conduct additional hearings on these topics will result in an incomplete record that omits material facts relevant to a proper determination on the IEPA proposal and will materially prejudice Stepan. Putting this evidence before the Board will, unfortunately, extend these hearings somewhat. But, the extension should not be great and is certainly preferable to rendering a judgment based on a record that seems to "ignore the elephant in the room."

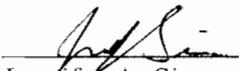
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11. The Illinois Department of Natural Resources, US Army Corps of Engineers, and other knowledgeable parties should be invited (or subpoenaed, if necessary) to testify before the Board on the presence of Asian carp in the UDP and other waterways that are the subject of this case, the likely future migration of Asian carp, the efforts underway to arrest the migration of Asian carp, the impact of Asian carp on the diversity and abundance of fish species and other aquatic life in waterways already impacted, the likely future impact of Asian carp on aquatic life in the waterways at issue in this case and other related issues. The Board should also provide an opportunity to other parties to this rulemaking who are located on waterways potentially affected by the presence of Asian carp to put testimony into the record on these and related topics.

12. The Board should then invite testimony from IEPA on the impact of Asian carp on the proposed aquatic life use designation of the UDP and other impacted waterways and how those facts should be considered in light of the UAA factors.

WHEREFORE, Stepan requests that the Board grant Citgo's Motion and grant this Motion to schedule hearings on the impact of the pending Supreme Court litigation and hearings on the effects of Asian carp on the UDP and other waterways at issue in this proceeding and the water quality uses and standards proposed for the UDP and the other waterways at issue. If one or both motions are granted, Stepan requests that the Board direct the Hearing Officer to work with the parties to adopt an expeditious and appropriate schedule for the presentation of testimony on these issues.

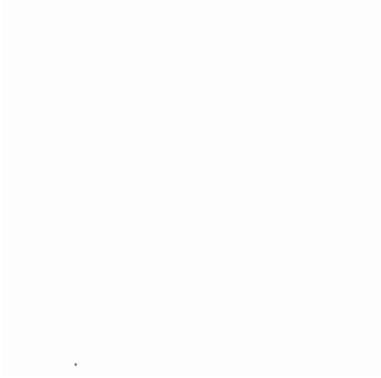
STEPAN COMPANY


Jennifer A. Simon

Date: January 21, 2010

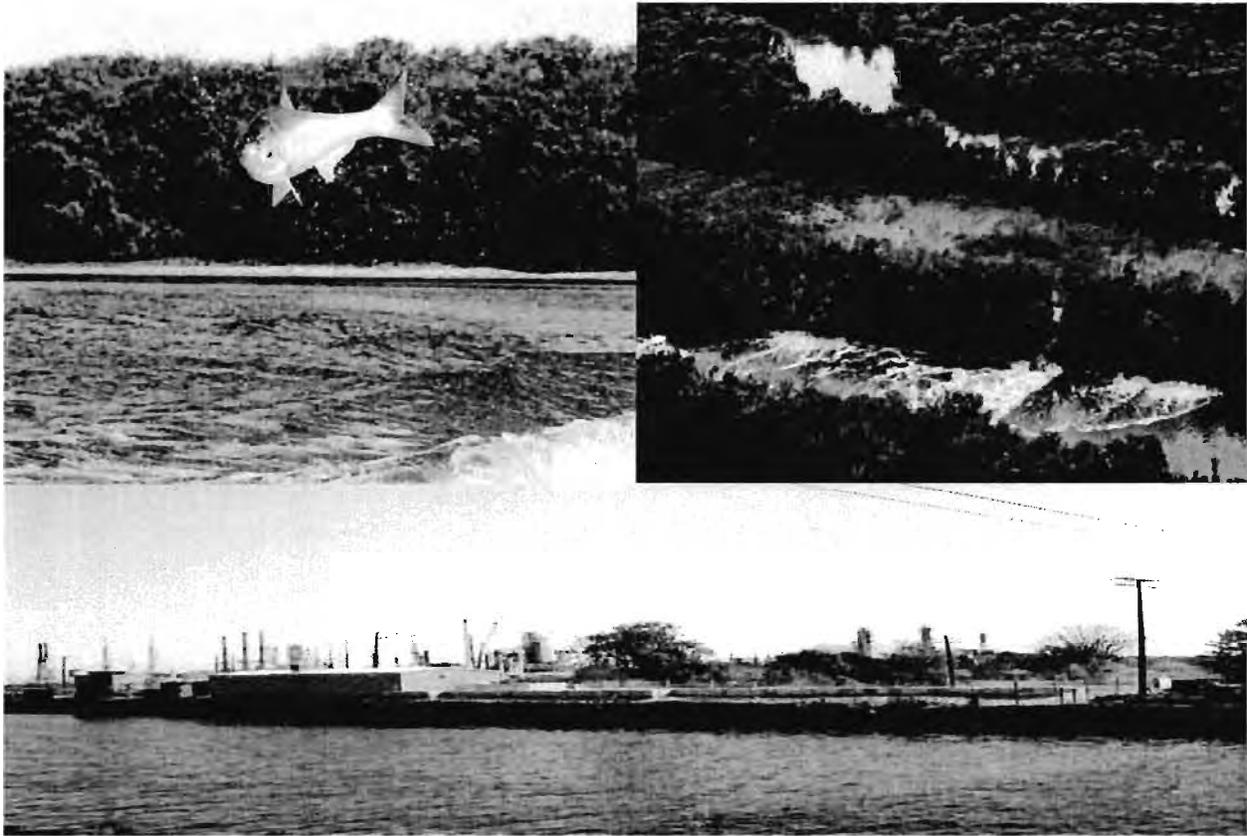
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EXHIBIT A



Dispersal Barrier Efficacy Study

INTERIM I – Dispersal Barrier Bypass Risk Reduction Study & Integrated Environmental Assessment



January 2010

FINAL REPORT



US Army Corps
of Engineers
Chicago District

1/6/2010

term strategy will be coordinated with other agencies and concerned stakeholders that can contribute to efforts related to the reduction of Asian carps in the Illinois River System and CSSC. Additional studies may be undertaken in the future as technologies to address ANS species evolve, to ensure that the Barriers project continues to function to keep ANS fish species from entering the Great Lakes basin.

Interim Risk Reduction Emergency Measures Considered

A USACE Project Delivery Team (PDT) evaluated risk reduction measures that could serve as a physical barrier to the passage of ANS fish, specifically Asian carps from the Des Plaines River overland to the Chicago Sanitary and Ship Canal. Due to the high levels of concern of fish bypass during wet weather the team considered measures traditionally employed for advance flood-fighting, as well as non-traditional measures that would serve as an effective barrier to minimize the risk of carp movement via the Des Plaines bypass. The measures considered, are as follows:

1. No Action – Maintains the status quo and would most likely allow for the Asian carps to bypass the barrier system.
2. Gabion Baskets – Stacked Gabion baskets made of galvanized wire mesh and filled with stone could be utilized. Typical dimensions of a single basket are 3'x3'x6' with 3"x3" openings in the wire mesh. They can be constructed at the project site and stacked as necessary to the desired height. The current estimate assumes the gabion baskets would be filled with rip rap. The topsoil will be stripped and a 6" layer of compacted gravel will be placed prior to placement. This option likely has the longest installation time of the all the barrier options. The gabion baskets would become impermeable over time as they filled with silt, debris and vegetation.
3. Concrete Barricades – Precast concrete barricades are an impermeable barrier. Typical dimensions are 2'-3" tall x 12'-6" long with a 1'-7 5/8" base width and 8" top width. Concrete barricades will be precast and delivered to the site. Barricades are available with male-female ends so that they can be fitted together to minimize flow between the barricades. The topsoil will be stripped and a 6" layer of compacted gravel will be placed prior to placement. Installation time is minimal, although lead time may be required. Placement of compacted gravel and fitted ends will minimize need for sandbags and plastic sheeting.
4. Rapid Deployment Flood Walls (RDFW's) – A RDFW is a modular, collapsible plastic grid that serves as a direct replacement for sandbag walls, which forms an impermeable barrier. Typical dimensions are 8" tall x 3'-6" long x 3'-6" wide. They are assembled in place to the desired height and then filled with sand. It can be assembled with minimal labor and filled with a loader. The topsoil will be stripped and a 6" layer of compacted gravel will be placed prior to placement. Although this feature is typically dismantled after the flood risk is gone, in this application, the RDFW would remain in place until a permanent solution to fish bypass is implemented.
5. Concrete Blocks – Concrete blocks are an impermeable barrier. Typical dimensions vary depending on the height. Concrete blocks will be precast and delivered to the site. The topsoil will be stripped and a 6" layer of compacted gravel will be placed prior to placement. Installation time is minimal, although lead time may be required.

1/6/2010

6. Chain Link Fencing – Chain link fence is a permeable barrier. Typical dimensions of a section of fence are 6' long by either 4', 6' or 8' tall. It would consist of 6 gauge galvanized wire steel mesh with 1/4" openings. Fence posts will be four inches in diameter galvanized steel and will be set four feet into the ground into a twelve inch diameter concrete post hole. The posts will be spaced six feet on center. In areas where bedrock exists at the surface, the bedrock will be drilled to accommodate the post holes. The 6' & 8' tall fence will have three rails (top, middle, bottom) horizontally between the fence posts and the 4' tall fence will only have two (top & bottom). Rails will be 1 5/8" diameter galvanized steel pipe. This is not a tried and true method for excluding fish, but theoretically it can stop the dispersal of Asian carps as long as the structural integrity of the fence is maintained. An angled non-barbed wire extension will be placed atop of the fence to thwart leaping silver carp. Issues that may arise from using the fence include vandalism and breakage, clogging with riverine debris and scouring at the base. Continual maintenance would need to be performed to remove clogs and to ensure that if fence cutting occurs, it is quickly mended. Installation time is long and lead time will be necessary because the current robust design of the fence requires materials in massive quantities that will not be found in stock. Riprap will be placed along the bottom fence rail in areas where scour could be an issue during a major flood event.

7. Culvert Blocking – The recommended near term solution for the I&M Canal potential bypass, after preliminary H&H analysis, is to block off the I&M Canal at Cico Road and slip line (reduce the roughness of the pipe by inserting a PVC pipe in the existing culvert) and add inlet transitions to the International-Matex Tank Terminals (IMTT) culverts. The hydrologic flow divide is located just east of Cico Road, so placing a barrier here would not affect stormwater flows or induce flooding. Inclusion of additional freeboard will be evaluated during detailed design and floodway permit process.

8. Chain Link Fence & Concrete Barricade Combo / Block I&M Canal – Optimized combination of concrete barricade and chain link fence with 1/4" openings for the Des Plaines bypass, and culvert blocking to address the I&M Canal bypass.

Preferred Risk Reduction Measure

It is the Interim I Report's recommendation to implement the optimized interim risk reduction measure as a temporary and emergency solution. The preferred risk reduction measure is to place 34,600-feet of Concrete Barricades and 33,400-feet of Chain Link Fence with 1/4" openings. The total project cost of this IRRM is currently estimated to be \$13,174,000. The implementation of this measure would protect 68,000-feet (~13-miles) of flood prone area along the CSSC upstream of the Dispersal Barriers. Also, the two culverts under Cico Road in the I&M Canal will be disabled and the flow capacity increased at the IMTT culverts.

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this January 21, 2010, I have served electronically the attached Response in Support of Citgo Petroleum's Motion for Hearings and Motion for Hearings on the Impact of Asian Carp on the Proposed Aquatic Life Use Designations upon the following person:

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

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