

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

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

NOTICE OF FILING

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

PLEASE TAKE NOTICE that I have today filed with the Illinois Pollution Control Board Midwest Generation's Updated Pre-Filed Testimony of Julia Wozniak, Midwest Generation, Regarding Asian Carp Issues to Provide Current Website Internet Links and Referenced Documents, copy of which is herewith served upon you.

Dated: November 4, 2010

MIDWEST GENERATION, L.L.C.

By: /s/ Susan M. Franzetti  
One of Its Attorneys

Susan M. Franzetti  
NIJMAN FRANZETTI LLP  
10 South LaSalle Street, Suite 3600  
Chicago, IL 60603  
(312) 251-5590

**SERVICE LIST R08-09**

Marie Tipsord, Hearing Officer  
Illinois Pollution Control Board  
100 West Randolph St  
Suite 11-500  
Chicago, IL 60601

Frederick Feldman  
Ronald Hill  
Louis Kollias  
Margaret Conway  
Metropolitan Water Reclamation District  
100 East Erie St  
Chicago, IL 60611

Kristy A.N. Bulleit  
Hunton & Williams LLC  
1900 K Street, NW  
Washington, DC 20006

Katherine Hodge  
Monica Rios  
Hodge Dwyer Zeman  
3150 Roland Avenue  
Springfield, IL 62705-5776

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

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

Deborah J. Williams  
Stefanie N. Diers  
Illinois EPA  
1021 North Grand Avenue  
Springfield, IL 62794-9276

Keith Harley  
Elizabeth Schenkier  
Chicago Legal Clinic, Inc.  
205 West Monroe Street  
4<sup>th</sup> Floor  
Chicago, IL 60606

Ann Alexander  
Natural Resources Defense Council  
Two North Riverside Plaza  
Suite 2250  
Chicago, IL 60606

Andrew Armstrong  
Elizabeth Wallace  
Office of Illinois Attorney General  
Environmental Bureau  
69 West Washington St. Ste 1800  
Chicago, IL 60602

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

Albert Ettinger  
Jessica Dexter  
Environmental Law & Policy Center  
35 E. Wacker  
Suite 1300  
Chicago, IL 60601

Electronic Filing - Received, Clerk's Office, November 4, 2010

Jeffrey C. Fort  
Ariel J. Teshler  
Sonnenschein Nath & Rosenthal LLP  
7800 Sears Tower  
233 S. Wacker Drive  
Chicago, IL 60606-6404

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

Lyman C. Welch  
Alliance for the Great Lakes  
17 N. State St., Suite 1390  
Chicago, IL 60602

Thomas W. Dimond  
Susan Charles  
Ice Miller LLP  
200 West Madison Street, Suite 3500  
Chicago, IL 60606-3417

Cathy Hudzik  
City of Chicago  
Mayor's Office of Intergovernmental Affairs  
121 North LaSalle Street, Room 406  
Chicago, IL 60602

Mitchell Cohen  
Illinois DNR, Legal  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62705-5776

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**UPDATED PRE-FILED TESTIMONY OF JULIA WOZNIAK, MIDWEST  
GENERATION, REGARDING ASIAN CARP ISSUES TO PROVIDE CURRENT  
WEBSITE INTERNET LINKS AND REFERENCED DOCUMENTS**

On October 8, 2010, the Pre-Filed Testimony of Julia Wozniak, Midwest Generation, Regarding Asian Carp Issues was filed in these proceedings (“Wozniak 10/8/10 Pre-Filed Testimony”). A typographical error on page 13 of Ms. Wozniak’s pre-filed testimony was corrected in a revised filing on October 18, 2010. Thereafter, the Illinois EPA advised Midwest Generation that certain of the website internet links provided in Ms. Wozniak’s pre-filed testimony were no longer operable. Pursuant to Midwest Generation’s request, during the October 28, 2010 Scheduling Conference, the Hearing Officer granted leave to Midwest Generation to file an updated version of Ms. Wozniak’s pre-filed testimony that provides the current and operable website internet links to replace those which are no longer operable and to provide copies of the referenced documents from those websites. Accordingly, Midwest Generation is now filing an updated version of the Pre-Filed Testimony of Julia Wozniak which contains the following revisions:

1. The former website internet link: “<http://www.piersystem.com/go/doc/1295/312782/>” at page 12 of the Wozniak 10/8/10 Pre-Filed Testimony, has been updated as follows: “<http://www.federalregister.gov/articles/2009/08/26/E9-20619/safety-zone-and-regulated-navigation-area-chicago-sanitary-and-ship-canal-romeoville-il>” and a copy of the referenced

internet document is now included as Attachment 12 to the Updated Wozniak Pre-Filed Testimony;

2. The former website internet link:

“<http://uscg.fishbarrierinfo.com/go/doctype/1295/16324>” at page 14 of the Wozniak 10/8/10 Pre-Filed testimony has been updated as follows:

“<http://www.lrc.usace.army.mil/AsianCarp/BarriersFactSheet.pdf>” and a copy of the referenced internet document is now included as Attachment 13 to the Updated Wozniak Pre-Filed Testimony;

3. The former website internet link: “<http://www.piersystem.com/go/doc/1295/431975/>” at page 15 of the Wozniak 10/8/10 Pre-Filed Testimony has been updated as follows:

“<http://www.federalregister.gov/articles/2010/01/06/E9-31350/safety-zone-and-regulated-navigation-area-chicago-sanitary-and-ship-canal-romeoville-il>” and a copy of the referenced internet document is now included as Attachment 14 to the Updated Wozniak Pre-Filed Testimony; and

4. The former website internet link: “<http://www.piersystem.com/go/doc/1295/539735/>” at page 19 of the 10/8/10 Wozniak Pre-Filed Testimony has been updated as follows:

“<http://asiancarp.org/old/Documents/May52010NRMonitoringFINAL.pdf>” and a copy of the referenced internet document is now included as Attachment 15 to the Updated Wozniak Pre-Filed Testimony.

Other than the revisions to the website internet links and the addition of the hard copy attachments numbers 12 through 15, no other changes or revisions have been made in this updated version of the Wozniak Pre-Filed Testimony. For ease of reference, and to avoid confusion in the record, we have included in the attached updated version of this pre-filed

testimony the original attachments numbers 1 through 11 so that this filing contains all of the attachments to Ms. Wozniak's Pre-Filed Testimony in one place.

Respectfully submitted,  
MIDWEST GENERATION, L.L.C.

By: /s/ Susan M. Franzetti  
One of Its Attorneys

Date: November 4, 2010

Susan M. Franzetti  
NIJMAN FRANZETTI LLP  
10 S. LaSalle St., Suite 3600  
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**REVISED PRE-FILED TESTIMONY OF JULIA WOZNIAK, MIDWEST  
GENERATION, REGARDING ASIAN CARP ISSUES**

**(with Updated Website Links)**

**I. INTRODUCTION**

My name is Julia Wozniak and I am currently employed as an Environmental Project Manager with Midwest Generation (“MWGen” or “Midwest Generation”). I have previously provided pre-filed testimony in this proceeding which describes my employment and educational background, so I will not repeat all of that information here. (See Board Exhibit 364, Docket No. R08-9; “Pre-filed Testimony of Julia Wozniak” dated August 4, 2008). As part of my job responsibilities for the past 26 years (10 years with MWGen and 16 years with ComEd), I have actively participated in state and federal efforts related to policy matters and rulemakings. Midwest Generation has been actively involved as a primary stakeholder in the control efforts to prevent the migration of Asian carp to Lake Michigan.

My testimony will focus on the following areas: (1) the electric barriers installed in the Chicago Area Waterway System (CAWS) to prevent the migration of Asian carp and events regarding their operation which are relevant to this UAA rule-making proceeding; and (2) other on-going efforts by federal and state agencies to stop the spread of invasive aquatic species into and/or out of the Great Lakes.

My testimony presents a brief review of the history and operation of the electric barrier project in the Chicago Sanitary and Ship Canal (CSSC), including the public safety and commercial navigational issues that have arisen from the operation of the electric barriers. This is followed by a discussion of Midwest Generation's role in working cooperatively with government entities to monitor and report on the presence of invasive species in the vicinity of the five MWGen electrical power generating stations along the CSSC and the Lower Des Plaines River, as well as more recent efforts to help government agencies implement additional Asian carp deterrents in the waterway. My testimony also provides a review of events in 2009 and 2010 that have elevated the concern about the migration of Asian carp species through the CSSC and into the Great Lakes. These events include the discovery of Asian carp in closer proximity to, as well as beyond the CSSC electric barriers, and the closing of the CSSC in the area of the electric barriers to all but commercial barge traffic and other large vessels. Midwest Generation's own discovery of the presence of six Asian carp in the Lower Des Plaines River during fish collection efforts in May, 2010 has also resulted in an increased effort on the part of natural resources agencies to capture additional Asian carp downstream of the electric barrier. These more recent developments are particularly relevant to the Board's consideration of the use classification for the CSSC and the Upper Dresden Island Pool (UDIP).

## **II. OVERVIEW OF PARTICIPATION IN ASIAN CARP CONTROL EFFORTS**

Since the late 1990's, initially on behalf of ComEd and thereafter as a MWGen employee, I personally have devoted an extensive amount of time to matters related to the migration of Asian carp in the UAA waterway and the government-led efforts to deter their migration. On behalf of Midwest Generation, I have represented the company as an active member of the Aquatic Nuisance Species Dispersal Barrier Panel (the "Barrier Advisory Panel"). The Barrier Advisory Panel was originally organized by the U.S. Army Corps of Engineers'

(USACE) Chicago District in 1996 to guide the construction, operation and maintenance of the first electric barrier in the CSSC, known as the “Aquatic Nuisance Species Dispersal Barrier” or “Barrier I,” to prevent the migration of Asian carp and other invasive species. Since the “Barrier I” project’s initiation, through its installation and commencement of operations, and continuing thereafter, I have been an active participant in the activities of the Barrier Advisory Panel. Since Barrier I began full operation in 2002, the work of the Barrier Advisory Panel has expanded over the years to also include review of the planning, installation and operation of an additional electric barrier in the CSSC, known as “Barrier IIA,” in 2009, and continuing to-date with the development and construction of Barrier IIB. Midwest Generation continues to participate on the Barrier Advisory Panel, which has now been designated as an official advisory/outreach group of the Asian Carp Regional Coordinating Committee (“ACRCC”). The ACRCC was officially established under the authority of section 118 of the Clean Water Act and Executive Order 13340. (See “Asian Carp Control Strategy Framework,” dated May, 2010, pp. 7 and 41: <http://www.asiancarp.org/Documents/AsianCarpControlStrategyFrameworkMay2010.pdf> (last accessed, October 7, 2010))

At the invitation of the U.S. Coast Guard (USCG), Midwest Generation also has been an active participant in the USCG’s Safety Work Group. The Safety Work Group was established in early 2008 to try to address the identified safety concerns related to barrier operations. I have and continue to be an active participant in the Safety Work Group on behalf of MWGen.<sup>1</sup> Due to the close proximity of the electric barrier to MWGen’s Will County Generating Station, our station personnel and contractors have worked closely with the USACE, the USCG and Illinois

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<sup>1</sup> The Safety Work Group is regularly attended by eleven stakeholders, including Midwest Generation. Other key partners include the American Waterways Operators, Illinois River Carriers Association, USACE Chicago District, USCG Marine Safety Unit Chicago, USCG Sector Lake Michigan/Captain of the Port Lake Michigan, and the Ninth Coast Guard District.

Department of Natural Resources (IDNR) to ensure that efforts to deter the migration of Asian carp do not adversely impact MWGen Will County Station operations and that the Station's operations do not in turn interfere with those efforts.

In May 2009, the USACE initiated testing for Asian carp using a relatively new method of sampling the water column for the presence of Environmental DNA or "eDNA", which is species-specific and purportedly can detect the presence of Asian carp in a given waterbody. When positive eDNA samples began to be found in close downstream proximity to the electric barrier zone in July, 2009, it sent up a warning flag that Asian carp were moving upstream more rapidly than expected. When Asian carp eDNA was detected above the existing barriers in October, 2009, it served as the trigger for the planning and implementation of the first of several deliberate efforts by natural resources agencies to actively try to minimize the number of Asian carp in the waterways.

The first planned fish kill effort on the CSSC, termed operation "Silver Screen" by the IDNR, took place in early December, 2009. (For further information, see [http://www.asiancarp.org/documents/GLC\(2\).ppt](http://www.asiancarp.org/documents/GLC(2).ppt) (last accessed, October 7, 2010)) This action was taken in response to Asian carp eDNA detection both close to as well as upstream of the electric barriers, and was also spurred by the need to bring Barrier IIA down for required maintenance. Midwest Generation was one of the first industries requested by the U.S. EPA and the IDNR to actively participate in the operation Silver Screen planning effort as a full partner in the original, ad-hoc Rapid Response Workgroup. I personally participated in numerous conference calls, logistics meetings and site walk-downs from approximately September, 2009 through November, 2009, with representatives of U.S. EPA, IDNR and their contractor personnel, in order to help formulate the final treatment plan strategy. Due to the MWGen Will County Station's proximity to both the electric barrier and the planned rotenone treatment zone,

Midwest Generation's participation and cooperation were vital in helping IDNR implement their rotenone application and fish recovery effort. Midwest Generation provided on-site access and 24/7 support for the team assigned to one of the five rotenone injection points along the CSSC. At the request of the supervising authorities, Will County Station also altered normal plant operations during the rotenone application period to help facilitate the effective application and dispersal of rotenone in the waterway. In turn, IDNR and its contractors helped to ensure that the resultant fish kill had no adverse impact on generating station operations.

More recently, Midwest Generation has been working cooperatively with the USACE concerning its plans for the installation of a hybrid bio-acoustic barrier in the vicinity of the Midwest Generation Joliet 29 Station at the downstream side of Brandon Road Lock and Dam. As further discussed below, this work is part of the on-going effort by the USACE to implement additional methods to help deter the migration of Asian carp to the Great Lakes.<sup>2</sup>

Primarily through its long-term (over 25 years) fisheries monitoring program on the waterway, as well as individual MWGen station inspections, Midwest Generation continues to provide state and federal resource agencies with more detailed information regarding the presence of aquatic nuisance species than they would otherwise be able to obtain, due to personnel and budgetary constraints.

### **III. The Aquatic Nuisance Species Barrier Project – Its Purpose and Effects**

#### **A. Background - The Invasive Species Threat to the Great Lakes**

“Asian carp” is the term used for a group of invasive species of fish that can grow up to four feet long, weigh over 100 pounds and leap out of the water. A photo of an Asian carp is attached as Attachment 1 along with a copy of a Fact Sheet on Asian carp. These fish, which are

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<sup>2</sup> Interim Report IIIA—full title: Dispersal Barrier Efficacy Study INTERIM IIIA – Fish Dispersal Deterrents, Illinois & Chicago Area Waterways Risk Reduction Study and Integrated Environmental Assessment: [http://www.lrc.usace.army.mil/pao/02June2010\\_InterimIIIA.pdf](http://www.lrc.usace.army.mil/pao/02June2010_InterimIIIA.pdf) (last accessed, October 7, 2010).

native to the large rivers of eastern China, were inadvertently introduced into the wild in the U.S. in the early 1980's from aquaculture facilities. They are capable of causing significant damage to the native food chain, as well as the recreational sport fish industry in the Midwest.

Of particular concern to the Midwest region are two species, the bighead carp (*Hypophthalmichthys nobilis*) and the silver carp (*Hypophthalmichthys molitrix*), both of which are plankton feeders. (See Attachments 1 & 2) As such, they are in direct competition for food with native paddlefish, bigmouth buffalo and gizzard shad, as well as with all species of juvenile fish and mussels. Because of their plankton feeding habits, they are not subject to fishing pressure by anglers and due to their size, they have no natural predators (except when they are very young). If these species are allowed to enter the Great Lakes, scientists are concerned they will devastate the Great Lakes commercial and sport fishing industries, as well as the delicate ecological balance of this unparalleled natural resource.

In July, 2002, the threat of invasion of Lake Michigan by Asian carp officially became an international issue. The International Joint Commission (IJC) for the Great Lakes sent letters to both Colin Powell (U.S. Secretary of State) and Bill Graham (Canadian Minister of Foreign Affairs) requesting "immediate action by the governments to prevent the imminent introduction of Asian carp into the Great Lakes." The IJC letter stated that: "Scientific consensus indicates that the introduction of Asian carp may result in economic and ecological damages to the Great Lakes ecosystem that far exceed those brought about by the previous introduction of the sea lamprey and the zebra mussel." (See Attachment 3, IJC Letter dated July 5, 2002)

**B. The Aquatic Nuisance Species Dispersal Barrier Panel**

As I have previously stated, the Barrier Advisory Panel was initially created by the USACE to provide guidance and direction for the construction, operation and maintenance of Barrier I. The Panel's work has expanded to include monitoring the construction and activation

of the second, more powerful CSSC electric barrier, known as "Barrier IIA." Barrier IIA was originally designed as one part of a parallel system of two more powerful barrier arrays located directly downstream of the original Barrier I. The Barrier Advisory Panel was also directly involved in helping to obtain approval and appropriations for the construction of "Barrier IIB" (the second component of the more powerful barrier system). Barrier IIB is expected to be completed within the next few months. A list of the Barrier Advisory Panel participants is attached to this testimony as Attachment 4.

The Barrier Advisory Panel meets with the USACE, U.S. Fish and Wildlife Service (USFWS), IDNR and other regulatory and natural resources agencies on a semi-annual basis to discuss barrier issues. The primary role of the Barrier Advisory Panel has been to provide input to the USACE on barrier needs and concerns, assist in identifying acceptable barrier operational parameters, provide expertise on project planning and design, identify and utilize multiple funding sources for barrier-related needs and to advance the planning, construction and safety testing of the barriers. Additionally, the Panel reviews the results of on-going research related to invasive species monitoring and detection and explores additional physical, acoustical, and other methods to deter the movement of invasive species into or out of Lake Michigan. The USACE continues to meet regularly with the Barrier Advisory Panel to obtain its input on the design, safe operation and monitoring of the barriers and to identify other potential means of stopping the spread of aquatic nuisance species through the CSSC. Panel members represent more than 50 international, federal, state, regional, municipal, industrial, academic and environmental groups or agencies. A wide array of expertise is represented by the panel, whose members include field and research biologists, academic specialists, engineers, regulators, barge operators and commercial water users.

**C. 2002: The CSSC Electric Barrier I Begins Operation**

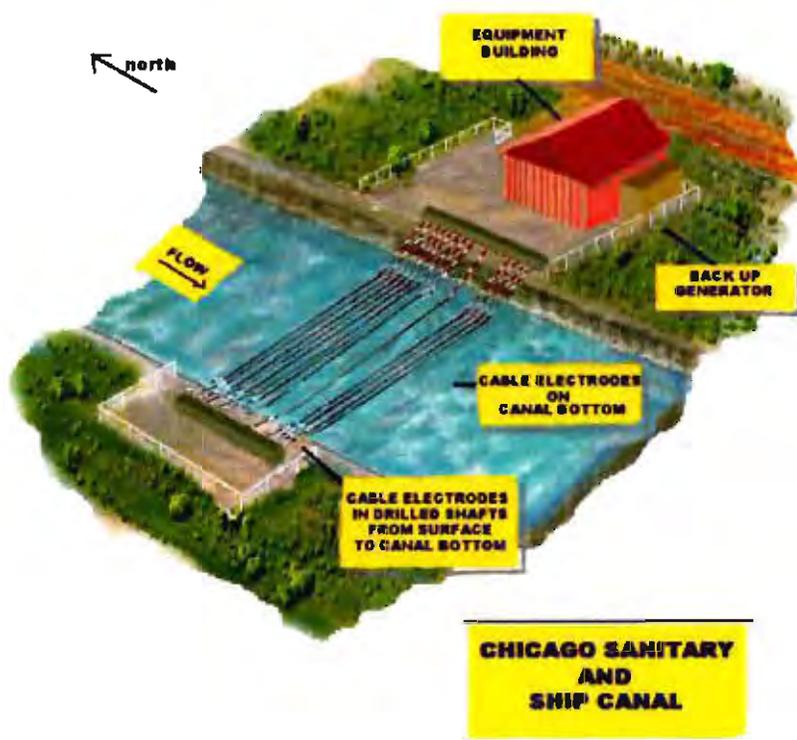
The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended by the National Invasive Species Act of 1996, 16 U.S.C. §§ 4701 *et seq.*, authorized the USACE to conduct a demonstration project to identify an environmentally sound method for preventing and reducing the dispersal of nonindigenous aquatic nuisance species through the CSSC between the Mississippi and Great Lakes watersheds. The USACE, with the support of the then ad-hoc Barrier Advisory Panel, selected an electric barrier because it was a non-lethal deterrent with a proven history, which would not overtly interfere with navigation in the canal.

With the help of other state and federal agencies, the USACE initiated an electrical barrier demonstration project in the CSSC. The first barrier (called “Barrier I”) was energized in April, 2002 and has been in operation since that time. As shown in Figure 1 below, it is located approximately thirty miles from Lake Michigan at River Mile 296.5 in Romeoville, IL. It is less than 1 mile upstream of Midwest Generation’s Will County Generating Station.



Figure 1: Aerial view of the Chicago Sanitary and Ship Canal Aquatic Nuisance Species Dispersal Barrier (“Barrier I”), located in Romeoville, IL  
(Source: U. S. Army Corps of Engineers, Chicago District)

As illustrated in Figure 2 below, Barrier I uses a low-charge electrical current (a maximum of approximately one-volt per inch) to create an electric field in the water across the CSSC by pulsing low voltage DC current through steel cables secured to the bottom of the canal. Because Barrier I was intended to be a demonstration project, it was designed and built with materials that were not intended for long-term use. In 2007, Congress authorized the USACE to (i) complete a new electric barrier, called Barrier II; (ii) upgrade Barrier I to make it permanent; and (iii) to operate the barrier system at full federal funding.



**Figure 2: Plan view of how barrier electrodes are placed in canal bottom.**

(Source: [http://images.suite101static.com/792724\\_com\\_dbl.jpg](http://images.suite101static.com/792724_com_dbl.jpg) (last accessed, October 7, 2010))

**D. 2006 – August 2009: The Construction and Operation of CSSC Electric Barrier IIA**

In 2006, the USACE completed construction of the first phase of the second barrier, called “Barrier IIA,” in the CSSC. It is approximately 500 feet long and is located 800 to 1300 feet downstream of Barrier I. Barrier IIA was designed to operate continuously at one-volt per inch, but is capable of operating at higher electrical voltage levels of up to four-volts per inch. Because of its design, Barrier IIA can generate a more powerful electric field, over a larger area within the CSSC, than Barrier I. After a temporary safety plan was put in place to address safety concerns expressed by commercial navigational users of the CSSC, Barrier IIA was successfully operated at one volt/inch for the first time for approximately seven weeks in September and October 2008, while Barrier I was taken down for maintenance. However, Barrier IIA’s temporary operation resulted in heightened safety concerns regarding the potential for electrical arcing between barges from the electrical field generated by Barrier IIA under certain conditions.<sup>3</sup> This “sparking” between barges transiting the barrier creates a risk to all barge workers, especially those with flammable cargoes. Due to these safety concerns, it was decided that Barrier IIA operation should be limited to one volt/inch until such time as safety testing results determined that higher voltage operation would not pose a significant risk to human activity within the barrier zone. From April 2009 until August 2009, both Barriers I and IIA were in operation simultaneously at the one-volt per inch level

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<sup>3</sup> Safety concerns from electrical arcing had begun as early as 2005. During USACE safety testing of Barrier I in January 2005 at the one-volt per inch operating level, sparking was observed at points where metal-to-metal contact occurred between two barges in the barrier field. Operating Barrier IIA at higher voltages, up to four-volts per inch (the maximum capacity), presents an even higher risk of electrical arcing; however, there is no data yet to indicate the magnitude of this increased risk. (See Attachment 5 for USACE Safety Notice)

**E. August – December 2009: The Discovery of Asian Carp in the CSSC, the Rotenone Fish Kill “Operation Silver Screen”, and Plans for Barrier IIB**

On August 11, 2009, I attended a Barrier Safety Committee meeting at which the USACE informed the primary stakeholders of its intention to increase the strength of the barrier electrical field in response to the increased threat of Asian carp moving upstream. The USCG was present and re-emphasized its continuing goal to protect the health and safety of all waterborne transit, with the highest priority being to ensure that commercial navigation would be protected to the greatest extent possible.

At an August 12, 2009 press conference, the USACE issued notice that it planned to increase the voltage of Barrier IIA to two-volts/inch on a full time basis, beginning on August 17, 2009. (A copy of the USACE August 12, 2009 Press Release is attached as Attachment 5). This action was taken based on eDNA testing results indicating that Asian carp were present above the electric barriers and much closer to the Great Lakes waterway system than previously thought. (See 2009 and 2010 eDNA results summaries issued by the ACRCC in Attachment 6). The new genetic water testing results also indicated that Asian carp were closer to the electric barrier than previously thought based on standard physical sampling methods. Environmental or “eDNA” testing is a surveillance tool that tests for the genetic presence of a specific species of fish in the water. This testing protocol was developed by researchers at the University of Notre Dame. The USACE has stated that “eDNA is a strong indicator of Asian carp presence.” Positive eDNA results for Asian carp were obtained from samples taken within five miles downstream<sup>4</sup> of the barrier location during the July-August, 2009 timeframe.

In response to these developments, the USCG implemented a Regulated Navigation Area (RNA) which limited access to the barrier area to only those commercial vessels which meet

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<sup>4</sup> “Downstream” is the term used to describe the portion of the waterway that leads south toward the Mississippi River.

specific criteria and follow pre-established protocols when traversing the barrier area while Barrier IIA was in operation. Terms of the RNA were discussed with and approved by important stakeholders, including Midwest Generation, prior to implementation. Since mid-August, 2009, Barrier IIA has been operating at two volts per inch. (A copy of the August 26, 2009 RNA, effective August 17, 2009, is attached in Attachment 12 and is available at:

<http://www.federalregister.gov/articles/2009/08/26/E9-20619/safetv-zone-and-regulated-navigation-area-chicago-sanigary-and-ship-canal-romeoville-il> (last accessed, November 3, 2010)

Shortly thereafter, in September, 2009, Asian carp eDNA was detected approximately only one mile downstream of the barrier, even closer than the eDNA testing performed in the preceding months. (See September 18, 2009 USACE Press Release in Attachment 7). This unexpected discovery spurred an even more heightened sense of urgency among all involved governmental and natural resources agencies to ensure that the existing invasive species deterrents remain in place to protect the Great Lakes. Then, in October, 2009, Asian carp eDNA was detected in the Cal-Sag Channel and Calumet River, which is upstream of the barrier zone.

In December, 2009, an approximately 6 mile section of the CSSC was closed during scheduled maintenance of Barrier IIA. Due to concerns that Barrier I's voltage alone would not be effective in deterring juvenile Asian carp, and the recent eDNA testing results indicating the presence of Asian carp in the immediate vicinity of the barriers, a fish toxin known as rotenone was applied to the canal between Barrier I and the Lockport Lock and Dam as part of "Operation Silver Screen.". At least 450 people from 20 agencies from the Great Lakes states and Canada assisted in this effort, along with all of the primary industries on the canal system, including Midwest Generation. A total of approximately 50,000 pounds of fish were collected during

Operation Silver Screen. One bighead Asian carp was collected, although it is suspected that more dead Asian carp were present on the canal bottom but could not be retrieved.

**F. 2010: Construction of the CSSC Electric Barrier IIB**

Construction on a third electric barrier (“Barrier IIB”) is underway at this time. Barrier IIB will augment the capabilities of Barriers I and IIA. The location of Barrier IIB is in the CSSC, approximately 220 feet upstream of Barrier IIA, as shown in Figure 3 below. The intention is for all three electric barriers (Barriers I, IIA and IIB) to work together to deter the migration of invasive species through the canal system (although it is currently more effective in preventing upstream migration than downstream).<sup>5</sup> The estimated total project cost through completion of Barrier IIB and upgrade of Barrier I to make it a permanent fixture in the CSSC is \$29.6 million. A map showing the location of Barriers I, IIA and IIB is included in Figure 3 below. Additional background information on the electrical barrier project provided by the USACE may be obtained at: <http://www.lrc.usace.army.mil/AsianCarp/BarriersFactSheet.pdf> (last accessed, November 3, 2010); a copy of one of the USACE-prepared materials on the electrical barrier project is also included in Attachment 13.

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<sup>5</sup> While there is an electric current generated both upstream and downstream of the barrier, there are two reasons why the barrier system is less effective in preventing invasive species from moving in the downstream direction:

- (1) The way the electric field is configured provides a stronger current on the downstream side, thereby increasing the repelling effect towards those species on their way upstream; and
- (2) Any high flow situation in the canal system (which happens frequently during wet weather events) would serve to “push” invasives through the barrier, whether they like it or not. Since the barriers are not designed to kill, they would then resume their downstream journey, undeterred.



**Figure 3: Illustration of the Chicago Sanitary and Ship Canal Aquatic Nuisance Species Dispersal Barriers in Romeoville, IL.**

**G. Other Changes in the CSSC Arising from the Electric Barrier Project**

In addition to the installation of the electric barriers themselves, other changes have occurred in the CSSC as a result of the operation of the barriers. The USACE has also installed blasting mats at the bottom of the CSSC to draw down the effects of the extended electrical field generated by the barrier. This measure was shown to be relatively effective based on subsequent USACE-conducted safety tests.

In 2010, the USACE proposed the installation of additional parasitic structures in the canal bottom to help further draw down the stray current being emitted by the barrier arrays outside of the barrier zone (*See* copy of July 19, 2010 IDNR Public Notice in Attachment 8). This is being done in advance of the start-up of Barrier IIB (expected in mid-to-late October, 2010).

There also have been changes made that affect navigation (both recreational and commercial) in the electric barrier areas, as well as in other areas affected or potentially to be affected by governmental efforts to prevent the migration of Asian carp. Based on its outreach efforts to primary stakeholders, the USCG and the USACE developed regulations and safety guidelines, with input from stakeholders (including Midwest Generation), to address the risks

and hazards associated with operating the electric barriers. The USCG has issued a series of Temporary Interim and Final Rules to help ensure the continued safety of persons and/or equipment in the vicinity of the electric barriers. These regulations have been published in the Federal Register in a series of final and temporary final rules. *See, e.g.*, 33 CFR 165.923, 70 Fed. Reg. 76692 (December 28, 2005); 71 Fed. Reg. 4488 (January 27, 2006); 71 Fed. Reg. 19648 (April 17, 2006); 73 Fed. Reg. 33337 (June 12, 2008); 73 Fed. Reg. 37810 (July 2, 2008); 73 Fed. Reg. 45875 (August 7, 2008); 73 Fed. Reg. 63633 (October 27, 2008); 74 Fed. Reg. 6352 (February 9, 2009); 74 Fed. Reg. 24722 (May 26, 2009); 75 Fed. Reg. 759 (January 6, 2010); and 75 Fed. Reg. 36288 (June 25, 2010). These rules, in relevant part, include the establishment of a Regulated Navigation Area on the CSSC near Romeoville, Illinois and a “Super” Safety Zone covering 77 navigational miles from the Brandon Road Lock and Dam to Lake Michigan (including the Des Plaines River, CSSC, Chicago River and Cal-Sag Channel).

The RNA encompasses an area approximately 2.5 miles long (located between mile markers 295 and 297.5 in the CSSC, approximately 1.1 miles south of the Romeo Road Bridge to approximately 1.3 miles northeast of the Romeo Road Bridge). *See* January 6, 2010 Coast Guard RNA rule at <http://www.federalregister.gov/articles/2010/01/06/E9-31350/safety-zone-and-regulated-navigation-area-chicago-sanitary-and-ship-canal-romeoville-il/> (last accessed, November 3, 2010); a copy of the 1/6/10 rule is also attached as Attachment 14. Transit through the RNA requires compliance with various measures, including the prohibition of any commercial vessel meeting, passing or overtaking another; tow boat assistance for barge tows containing one or more red flag barges; and a complete barring of all vessels of less than 20 feet from entering or traversing the RNA. In certain parts of the RNA, additional restrictions apply. The boundaries of the RNA are marked by the following permanent signage posted at both ends,

along with other visible warning indicators to alert canal users of the inherent dangers within the electric barrier zone:



The safety rules place navigational, environmental and operational restrictions in the prescribed area(s) to protect vessels and persons from the hazards associated with any federal and state efforts to control aquatic nuisance species.<sup>6</sup> The safety rules have been carefully crafted in order to minimize the potential for adverse significant regional economic impacts, given that statistics show that 17.7 million tons of cargo pass through the waterway annually, the equivalent of 162,000 rail cars or 708,000 semi trucks. (See “Coast Guard Discusses its Role in U.S. Army Corps of Engineers Aquatic Nuisance Species Dispersal Barrier Project,” Coast Guard’s Ninth District Public Affairs Website at:

<http://www.d9publicaffairs.com/go/doc/443/246215/> (last accessed, October 4, 2010)

Most recently, the USCG implemented what it refers to as a “Super Safety Zone” that creates a temporary safety zone, which may be enforced in segments, in a 77-mile area from

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<sup>6</sup> Because the protection of Midwest Generation’s electric generating operations is one of the USACE’s primary concerns, Midwest Generation has participated with the USACE in identifying additional measures to protect commercial navigation against safety hazards caused by the electric barriers’ operations. A coal transfer facility at MWGen’s Will County Station, where barges are loaded and sent upstream to Crawford and Fisk Stations, is located less than one mile downstream of the electric barrier zone. These barges were part of the USACE barge safety tests at the higher electric barrier voltage operation conducted from August 17-19, 2009 within the barrier zone. Midwest Generation worked with the USACE to conduct this barge configuration testing in an attempt to minimize the potential for electric arcing to occur. Based on this testing, recommended practices were implemented by coal barge operators to ensure the continued safety of barge crews, equipment and cargo.

Brandon Road Lock and Dam to Lake Michigan. This temporary interim rule is intended to restrict vessels from entering certain segments of the navigable waters of the Des Plaines River, the CSSC, branches of the Chicago River, and the Calumet-Saganashkee Channel (Cal-Sag Channel) during the implementation of Asian carp control efforts. (*See* 75 FR 26094 (May 11, 2010))

**IV. MIDWEST GENERATION'S ROLE IN THE ELECTRIC BARRIER PROJECT AND DISCOVERY OF ASIAN CARP IN UPPER DRESDEN ISLAND POOL ("UDIP")**

Midwest Generation has five electric generating stations (Fisk, Crawford, Will County Joliet 9 and Joliet 29) located on the CSSC and lower Des Plaines River, the hydraulic link between Lake Michigan and the Mississippi River watershed. As such, these stations are strategically located for purposes of monitoring the progression of aquatic nuisance species both upstream towards the Great Lakes and downstream towards the Mississippi River basin. The Midwest Generation Will County Station is less than one River Mile downstream of Barrier I. (*See* Attachment 9). At the IDNR's request, Will County Station personnel continuously monitor for signs of Asian carp. Midwest Generation continues to sponsor seasonal fisheries monitoring of the lower Des Plaines River from just downstream of Barriers I and IIA in the CSSC down to the confluence with the Kankakee River. Midwest Generation's sampling crew conducts twice monthly monitoring at 21 locations in the waterway annually from May through September. Any sightings of Asian carp (or other known invasive species) are immediately reported to both IDNR and the USFWS. These organizations rely on Midwest Generation's sampling program to augment their own monitoring programs that are done on a less frequent basis due to resource constraints.

In early 2002, as part of its long-term fish monitoring program in the Lower Des Plaines River, Midwest Generation contractors collected a five-pound Asian carp upstream of Dresden

Lock and Dam – the furthest upstream point that the species had been found at that time.

Midwest Generation's 2002 Asian carp finding was a trigger for expedited work by regulatory and natural resource management agencies to improve the invasive species electric barrier.

Midwest Generation station personnel also currently monitor for the presence of the round goby, another exotic nuisance species, at the request of the IDNR and the USFWS.

In May 2003, Midwest Generation was invited to participate in the Aquatic Invasive Species Summit, co-sponsored by the City of Chicago and USFWS. Representatives of Midwest Generation were asked to attend due to our familiarity with both the configuration and biology of the waterway, as well as the placement of our generating stations along the canal/river system. The 2003 Aquatic Invasive Species Summit identified various Asian carp control strategies for further consideration; many of these strategies have been included in the 2010 Asian Carp Control Strategy Framework. The executive summary of the 2003 Aquatic Invasive Species Summit findings is found at the following link:

[http://egov.cityofchicago.org/webportal/COCWebPortal/COC\\_ATTACH/Aquatic\\_Invasive\\_Species\\_Summary.pdf](http://egov.cityofchicago.org/webportal/COCWebPortal/COC_ATTACH/Aquatic_Invasive_Species_Summary.pdf) (last accessed, October 7, 2010).

In May, 2010, Midwest Generation's fisheries monitoring consultants, EA Engineering, Science and Technology, captured six bighead Asian carp, including a female in full breeding condition, in the Lower Des Plaines River, just upstream of the I-55 Bridge, in the area known as the UDIP in this proceeding. The captured Asian carp ranged in size from 27" to 42" in length and 15 to 32 pounds in weight. This development, the largest single Asian carp collection in any of the prior MWGen fisheries monitoring events, was immediately shared with IDNR personnel. Midwest Generation also made the EA field crew available to the Asian Carp Response Team authorities to provide further assistance and information regarding this discovery. Further details of the capture of these adult bighead carp and the implications for the UDIP are discussed in the

pre-filed testimony of Greg Seegert of EA Engineering, Science and Technology regarding Asian carp issues. (See Testimony of Greg Seegert, R08-9, Subdocket C, filed October 8, 2010). Since May 2010, IDNR and USFWS have significantly increased their efforts to capture Asian carp in the CAWS and downstream of the CAWS to attempt to confirm the positive eDNA findings and to determine the standing population of Asian carp in the waterway. (See <http://asiancarp.org/old/Documents/May52010NRMonitoringFINAL.pdf> (last accessed, November 3, 2010); a copy of the May 5, 2010 ACRCC Press Release entitled “Asian Carp Regional Coordinating Committee Announces Three-Month Monitoring and Sampling Plan” is attached as Attachment 15.) Midwest Generation also continues to assist IDNR with its plans to deter invasive species, as well as develop emergency measures to deal with these species, should they breach the in-place defenses currently in place.

In 2010, Midwest Generation began working with the USACE regarding its investigation for the proposed installation and operation of a bio-acoustic bubble barrier (or “ABS system,” as it is called) in the UDIP. The USACE was performing this work pursuant to the Water Resources Development Act 2007, which directed it to perform a study of a range of options or technologies for reducing impacts of hazards that may reduce the efficacy of the electrical barriers.<sup>7</sup> In an April 2010 report, entitled “Interim IIIA, Fish Deterrent Barriers, Illinois and Chicago Area Waterways Risk Reduction Study and Integrated Environmental Assessment” (dated April 2010), the USACE and its partner agencies in the ACRCC considered how technologies such as air bubble curtains, lights and sounds can be used to deter Asian carp movement. (Full report available at:

[http://www.lrc.usace.army.mil/pao/02June2010\\_InterimIIIA.pdf](http://www.lrc.usace.army.mil/pao/02June2010_InterimIIIA.pdf) (last accessed, October 7, 2010)

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<sup>7</sup> To expedite the efficacy evaluation, USACE divided the study into several phases. These phases are outlined in the ACRCC Framework ( May, 2010): <http://www.asiancarp.org/Documents/AsianCarpControlStrategyFrameworkMay2010.pdf> (last accessed October 7, 2010).

Air bubble curtains consist of pumped compressed air through a diffuser to create a continuous dense curtain of bubbles, which can cause an avoidance response in fish. Sounds are currently used in one of two ways to deter fish: underwater loudspeakers or sound projectors to produce a diffuse omni-directional field of sound that can block fish movement or coupling sound sources to a bubble curtain to produce a discrete “wall of sound” (known as an “evanescent” or rapidly decaying field). Similarly, lights can be used in combination with bubble curtains to enhance the effectiveness of both and strobe lights can repel fish by eliciting an avoidance response. As discussed in the Interim IIIA report, combining an acoustic deterrent with an air bubble curtain and strobe lights was judged to be the best available Interim Risk Reduction Measure (IRRM) that has the potential to reduce the risk related to Asian carp migration in the CAWS when fully functional. (*See Interim IIIA Report, p. 32 et seq.*)

The USACE is working with the IDNR and the USFWS to identify data needed to effectively operate this system and measure its efficacy, as well as to assess the possibilities of using the ABS fish deterrent measure in conjunction with other technologies such as the use of attractants (*i.e.* pheromones, plankton, lights, etc.) that could help guide fish into certain control zones. As part of the deterrent site screening process, locations were assessed both above and below the electric barrier zone. Downstream sites were generally favored, as they would be able to prevent upward movement of Asian carp before they are able to reach the electric barrier zone. Other criteria were included in the process to identify potential locations for fish deterrents. These criteria included physical site characteristics, real estate requirements, construction access, availability of utilities, the presence of an upstream pool or adjacent diversion area for fish, as well as proximity to outlets into Lake Michigan. The USACE utilized aerial mapping to locate potential sites, and then followed up with site visits to further evaluate the acceptability of the sites. Eight locations were chosen as good candidate sites for placement of the recommended

ABS fish deterrent measure. Three of these sites were downstream of the Electrical Dispersal Barrier and five were upstream of the current barrier in the CAWS and closer to Lake Michigan.

Among the eight potential candidate sites for placement of the acoustical barrier, the USACE considered Dresden Island Lock and Dam, the Des Plaines River at Brandon Road Lock and Dam, and the CSSC at Lockport Lock and Dam sites as potential demonstration/downstream sites. However, because Asian carp have been observed and tagged in the Dresden Island Pool, the Dresden Island Lock and Dam was quickly eliminated as an appropriate site. The two remaining sites, the Brandon Road Lock and Dam and the Lockport Lock and Dam sites both include a number of features that appear to be conducive for a demonstration project location. While both sites have a large pool on the downstream side of the Lock and Dam, there are a number of physical bypass opportunities at the Lockport Lock and Dam that might allow the Asian carp to bypass a bio-acoustical barrier. These bypasses include parallel streams or canals that allow passage past the lock and dam to upstream locations. Because of the existence of these bypasses, the Lockport Lock and Dam site was eliminated from further consideration as an appropriate site for the demonstration project.

The Brandon Road Lock and Dam facility is located at the northern (*i.e.* upstream) end of the Dresden Island pool upstream of locations where Asian carp have been recovered. While one bighead carp was recovered during rotenone application in the Lockport Pool in December 2009, additional individuals of the target species have not been recovered in the Lockport Pool. The presence of the target species is needed to calibrate elements of the demonstration ABS fish deterrent to the target species. Fisheries biologists can tag and release Asian carp downstream of the demonstration ABS fish deterrent and the electric dispersal barrier, and then track their movements to determine the effectiveness of the ABS and to adjust its operation, as necessary, to obtain the maximum deterrent possible. The pool on the downstream side of the Brandon Road

Dam provides a suitable location for Asian carp that are deterred by the ABS barrier to congregate and be effectively collected by fisheries biologists by various means, including broad-scale rotenoning and/or intensive commercial netting. Further, because the electric barrier is located upstream of the Brandon Road Lock and Dam, that barrier can provide redundancy to the ABS barrier while its operation is being optimized.

In summary, based on an extensive review of the eight potential installation sites, the USACE ultimately determined and recommended to the Aquatic Nuisance Species Barrier Panel that the most suitable location for the installation of a “hybrid ABS fish deterrent system” (*i.e.*, an acoustic bubble curtain with strobe lights) is at the Des Plaines River near the Brandon Road Lock and Dam, which is part of the UDIP – the term used in this rule-making. (*See* June 15, 2010 Minutes of the Aquatic Nuisance Species Barrier Panel Meeting, 2<sup>nd</sup> page, a copy of which is attached as Attachment 10).

The proposed Brandon Road ABS barrier deterrent system site consists of a cross section in the Des Plaines River at the downstream entrance to the Brandon Road Lock (Attachment 11). The ABS barrier system would be placed between riprap revetments on each wall of the lock entrance channel. Its placement, combined with intensive sampling efforts led by IDNR, would direct dispersing fish to the dam spillway area to the northeast where Hickory Creek flows into the Des Plaines River, where they will be effectively removed from the system by various means, including the application of rotenone and/or other physical removal methods. The feature width would be approximately 400 feet, spanning the entire navigational channel and shoreline area immediately downstream of the approach to the Brandon Road Lock and Dam.

The real estate needed to be acquired for the Brandon Road ABS barrier system installation is currently owned by Midwest Generation. The controlling structure for this barrier would be placed on Midwest Generation Joliet Station #29 property, just east of the plant. The

USACE first approached Midwest Generation about this project in April, 2010. Since that time, both real estate right-of-access and environmental background work has been done to support this effort.

As explained by Col. Quarles of the USACE during the June 15, 2010 meeting of the Aquatic Nuisance Species Barrier Panel meeting that I attended, this combination of acoustic, bubble and strobe light deterrents located at a strategic point in the waterway system is intended to guide Asian carp into a geographically isolated location (*i.e.*, the Brandon Road tailwater) in order to allow partner agencies to conduct control and eradication efforts in that smaller and contained area. According to Col. Quarles, the Brandon Tailwater area would serve as the best possible location to stage a controlled “killing ground” for Asian carp herded in by the ABS barrier system. (It is also important to note that this strategy is not species-specific and will impact any fish which find themselves in this area when intensive Asian carp removal efforts are underway). The entire Brandon Tailwater area would be able to be isolated from the rest of the Lower Des Plaines River in this location. Due to its shallowness, as well as the means to control the flow (being that it is directly downstream from the Corps’ lock and dam tainter gate system), this location would afford both cost effective and comprehensive application of piscicides (*e.g.*, rotenone) to kill the fish herded into this area by the ABS barrier, and would also allow for the efficient and effective collection of these fish by IDNR and other natural resources agencies. The ABS barrier system will allow the USACE to calibrate the components system to the most effective settings for Asian carp because it will be located in an area where Asian carp are known to exist and where it has the potential to reduce the population of Asian carp challenging the electric dispersal barrier. The system will be used in conjunction with other control measures such as intensified monitoring, commercial fishing and implementation of more extensive monitoring and rapid response programs. It is believed that this adaptive management strategy

offers the best means currently available to rapidly and substantially reduce the risk of Asian carp establishing a self-sustaining population in the Great Lakes via the Illinois Waterway System.

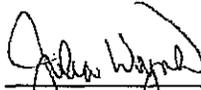
## V. CONCLUSION

While there are many competing scientific views on how best to prevent the spread of aquatic nuisance species, both the USACE, USCG and IDNR have accepted the need to sacrifice the full use of the CAWS, as well as the UDIP, in order to better protect the Great Lakes and Mississippi River ecosystems. They also have recently reiterated their commitment to ensure the protection of commercial navigation, even at the expense of secondary contact recreational uses in the CAWs. The series of electric barriers, especially at higher operating voltages, are in effect eliminating the zone of passage through the CSSC for all independently motile (free-swimming) forms of aquatic life. It is also inadvertently presenting threats to the safety of those who traverse the area, either by water or by land, such that even secondary recreational use in the CSSC Safety Zone has been totally prohibited. Clearly, the electric barriers' operation will continue to be an inherent part of the CSSC well into the future, or at least until such time as a more permanent, impenetrable solution is found to stop invasive species transfer between the Great Lakes and Mississippi River Basin. As such, any attempt to upgrade the existing uses of the canal system to enhance the ability of aquatic life to use the CSSC as a "highway" between areas of better habitat appear to be in direct conflict with recent federal government decisions and directives that are aimed at preventing aquatic migration through the CSSC and limiting recreational use due to the risks presented.

Similarly, there are also significant changes planned for the UDIP based on the progress to date on the proposed installation of an ABS deterrent system that will also change the current aquatic community in the UDIP. The Brandon Road tailwater would be isolated from the rest of

the Lower Des Plaines River as it becomes a dedicated location for Asian carp control measures, including intensive sampling measures and ultimate eradication through chemical or physical means, actions which will impact both Asian carp and native fish. These control strategies need to be considered in assessing the ability of the UDIP to attain the Clean Water Act goals for aquatic life. When taken together with the other evidence that has been introduced in this proceeding regarding the lack of good habitat, contaminated sediments, flow issues, CSOs, and other urban impacts, they clearly support a determination that the UDIP is not capable of attaining these goals at this time.

Respectfully submitted



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Julia Wozniak

## **ATTACHMENTS**

### **Pre-Filed Testimony of Julia Wozniak Regarding Asian Carp Issues**

- Attachment 1 Asian Carp Photos and Fact Sheet
- Attachment 2 Information from USFWS on Asian Carp Identification
- Attachment 3 International Joint Commission (IJC) Letter dated July 5, 2002
- Attachment 4 Chicago Sanitary and Ship Canal Aquatic Nuisance Species Dispersal Barrier Advisory Panel
- Attachment 5 USACE Press Release dated August 12, 2009
- Attachment 6 2009 and 2010 eDNA Testing Results
- Attachment 7 USACE Press Release dated September 18, 2009
- Attachment 8 USACE Parasitic Structures Information
- Attachment 9 Location of Barrier Zone in Relation to Midwest Generation's Will County Station
- Attachment 10 ANS Barrier Advisory Panel Meeting Minutes from June 15, 2010
- Attachment 11 ABS Barrier Plan for Brandon Road Lock and Dam
- Attachment 12 Coast Guard RNA Rule dated August 26, 2009
- Attachment 13 USACE Information Sheet on Electrical Barrier Project
- Attachment 14 Coast Guard RNA Rule dated January 6, 2010
- Attachment 15 ACRCC Press Release dated May 5, 2010

**Attachment 1**  
**Asian Carp Photos and Fact Sheet**



sites, likely the result of escapement from aquaculture facilities. The silver carp's history and use in Arkansas are closely intertwined with that of the bighead carp; and due to its feeding habits, the silver carp is also a direct competitor with all native fish larvae and juveniles; with adult paddlefish, bigmouth buffalo and gizzard shad; and with native mussels. The silver carp is presently spreading rapidly throughout the large rivers of the Mississippi River Basin, with huge numbers and significant natural reproduction being documented by biologists in off-channel and backwater habitats.

**Black carp (*Mylopharyngodon piceus*):** The black carp is native to most Pacific drainages of eastern Asia. It was first brought to the U.S. in the early 1970's as a "contaminant" in imported grass carp stocks delivered to a fish farm in Arkansas. The species closely resembles the grass carp in appearance, except that the gill rakers are fused and hardened (looking almost like human molars) for use in crushing the shells of mollusks and crustaceans, the black carp's primary food. A second importation occurred in the early 1980's; this time for use as a food fish and as a biological control agent to combat the spread of a trematode parasite in cultured catfish. The first and only known record of escapement or release to the wild occurred in Missouri in 1994 when thirty or more black carp,

along with several thousand bighead carp escaped into the Osage River in Missouri when high water flooded holding ponds at a private aquaculture facility near Lake of the Ozarks. Black carp are currently proposed for widespread use by fish farmers for the control of snails, the intermediate host of the trematode parasite in catfish. Many Mississippi River Basin states have requested through the Mississippi Interstate Coopera-



**Black carp (*Mylopharyngodon piceus*)**  
 ■ Drainages with introductions

live Resource Association (MICRA), that the U.S. Fish and Wildlife Service regulate the use of black carp by placing it on the federal list of injurious wildlife species under the Lacey Act. Most states feel that black carp pose a serious threat to native mollusk and snail species, many of which are federally listed as threatened or endangered. Meanwhile, Mississippi, Arkansas, Texas and Missouri permit stocking of genetically altered and presumably sterile black carp in fish farm ponds. Missouri has also initiated a 5-year program to supply limited numbers of genetically altered black carp to fish farmers in the hope that state officials will be more successful than private operators in preventing the escape and spread of this non-native species.

**What Can You Do?** Become more informed about the spread of non-native species nationwide. Consult your local, state, and federal conservation authorities as to the threat of non-native species in your area, and to the laws and regulations governing the importation, culture, maintenance, and stocking of non-native species. Utilize care in the purchase and use of baitfish in lakes and streams. Ask your bait dealers where their baitfish came from, and never release any unused baitfish to the wild; always destroy them or return them to your bait dealer. Learn and understand the biology and needs of aquarium fish species before purchasing them for your home aquarium. Never release pet fish or aquatic organisms from the home aquarium to open waters. Either destroy them, sell or give them to someone else, or return them to the store where purchased for proper disposal. Support stronger local, state and federal regulations designed to prevent the spread of non-native species, and let others know of your concerns for the protection of native species and biodiversity. Support your local, state and federal natural resource agencies in all of their efforts to stop the spread of non-native species of any kind!

For more information contact:

U.S. Fish and Wildlife Service  
 La Crosse Fishery Resource Office  
 555 Lester Avenue  
 Onalaska, Wisconsin 54650  
 (608) 783-8434



# Asian Carp



**Bighead carp (50 lbs) caught in the Cumberland River, Tennessee in May 2000.**

Four species of large Asian carps (grass, bighead, silver and black) have been imported into the U.S. for use in the aquaculture industry, and biologists are raising more and more concerns about their effect on native fish and shellfish when released or escaped to the wild. In fact, in the fall of 1999, fish kills in isolated ditches adjacent to the Upper Mississippi River on the Mark Twain National Wildlife Refuge in southern Illinois included large numbers (97%) of Asian carps, but only one individual each of four native fish species. After that incident, reports came in of commercial fishermen having to abandon fishing sites on the Missouri River because they were catching so many Asian carps that they found it impossible to raise their nets. The common carp, introduced by European immigrants in the 1800's as a food fish, has become so widespread in the U.S. that in most areas it is considered part of the native fauna. The fear is that in time the other four Asian carps will become as widely distributed and abundant, wreaking widespread havoc with native fish and shellfish habitats and foods.

**Grass carp (*Ctenopharyngodon idella*):** The grass carp or white amur, native to eastern Asia, was first imported into the U.S. in 1963 to aquaculture facilities in Auburn, Alabama and Stuttgart, Arkansas for research in the control of aquatic vegetation. This species typically inhabits large rivers but can be raised in ponds and rice fields; and large individuals are known to consume many pounds of aquatic vegetation in a single day. The first release into open waters occurred as a result of escapement from the Fish Farming Experiment Station in Stuttgart. By the mid-1960's the Arkansas Game and Fish Commission was raising the species at a state fish hatchery in Roanoke; and by 1978 Arkansas biologists had stocked the species in more than 100 state lakes. Since that time grass carp have rapidly spread to 45 states through the accidental and intentional, legal and illegal release by numerous state and federal agencies, private groups and individuals. Despite efforts to control the spread of grass carp by stocking individuals thought to be sterile, this large (50+ lbs), elongate, stout-bodied, blunt-headed, pale gray minnow has established itself and is reproducing in the wild. Grass carp began to appear in the catches of Arkansas' commercial fishermen in the early 1970's, and by 1976, 25 tons were reported taken statewide. The species has limited potential as a gamefish, and as a food fish the flesh is often said to be tainted with a strong algal flavor. However, local demand for and acceptance of grass carp is reported to be very high in some markets. Grass carp are regarded as the most palatable of all of the Asian carps. While introduced to consume troublesome aquatic plants, grass carp have been known to clean entire lakes of all aquatic plants, and to then consume organic detritus and animal



Grass carp (*Ctenopharyngodon idella*)  
 ■ Drainages with introductions

materials. Negative impacts on native organisms have been summarized to include: interspecific competition for food with invertebrates (i.e., crayfish) and other fishes; significant changes in the composition of macrophyte, phytoplankton, and invertebrate communities; interference with the reproduction of other fishes; decreases in refugia for other fishes; modification of preferred fish habitats; enrichment and eutrophication of lakes; disruption of food webs and trophic structure; and introduction of nonnative parasites and diseases.

**Bighead carp (*Hypophthalmichthys nobilis*):** Bighead carp, native to the large rivers of eastern China such as the Yangtze, were first brought to the U.S. in 1972 by a private fish farmer in Arkansas who wanted to use them to improve water quality and increase fish production in culture ponds. By 1974 the species was being evaluated by the Arkansas Game and Fish Commission and Auburn University for its potential biological benefits and impacts. Bighead carp first began to appear in open public waters (i.e. the Ohio and Mississippi rivers) in the early 1980's, likely the result of escapement from fish farms and aquaculture facilities. The species has now been recorded from within, or along the borders of, at least 18 states, and is reported to be "piling up" in large numbers below dams on many Midwestern rivers, and filling the nets of commercial fishermen to the point that nets can't be lifted and fishing sites have to be abandoned. The bighead carp is a very large deep-bodied, somewhat laterally compressed (narrow) fish with a very large head. Scales are very tiny, resembling those of trout,



Bighead carp (*Hypophthalmichthys nobilis*)  
 ■ Drainages with introductions

and the eyes are situated below the midline of the body. Gill rakers are long, comblike and close-set allowing the species to strain plankton organisms from the water for food. The bighead carp utilizes open water areas, moving about in the euphotic (surface) zones of large lowland rivers, consuming large quantities of bluegreen algae, zooplankton, and aquatic insect larvae and adults. Because of its feeding habits, the species is a direct competitor with the native paddlefish, bigmouth buffalo, and gizzard shad; as well as with all larval and juvenile fishes and native mussels. Some cultures value the flesh of bighead carp as a source of food protein and prefer that these fish be kept alive until immediately before cooking. Such demands are growing, particularly in cities with large ethnic Asian communities.

**Silver carp (*Hypophthalmichthys molitrix*):** The silver carp, native to eastern Asia and the Amur and other lowland rivers of China, was also first brought to the U.S. by an Arkansas fish farmer in 1973, apparently for use in phytoplankton control in ponds and as a food fish. By the mid 1970's, it was being raised at six state, federal, and private facilities in Arkansas; and by the late 1970's it had been stocked in 4 municipal sewage lagoons. This deep-bodied, laterally compressed (narrow), very large minnow is similar to the bighead carp, but much more efficient at straining suspended material from the water through use of gill rakers that are fused into sponge-like porous plates. By 1981, the silver carp appeared in Arkansas' natural waters at 7 different



Silver carp (*Hypophthalmichthys molitrix*)  
 ■ Drainages with introductions

**Attachment 2**  
**Information from USFWS on Asian Carp Identification**



**Attachment 3**  
**IJC Letter dated July 5, 2002**



International Joint Commission

July 5, 2002

Honorable Colin Powell  
Secretary of State  
2201 C Street, NW  
Washington, DC 20520

The Honourable Bill Graham  
Minister of Foreign Affairs  
125 Sussex Drive  
Ottawa, Ontario K1A 0G2

Dear Secretary Powell and Minister Graham

The purpose of this letter is to request immediate action by the governments to prevent the imminent introduction of Asian carp into the Great Lakes. Scientific consensus indicates that the introduction of Asian carp may result in economic and ecological damages to the Great Lakes ecosystem that far exceed those brought about by the previous introduction of the sea lamprey and the zebra mussel.

Recent evidence indicates Asian carp, prolific non-indigenous aquatic nuisance species, may now be within 25 miles of Lake Michigan – putting the entire Great Lakes Basin ecosystem at highest risk of invasion. Three species of Asian carp (silver, bighead, and black) were purposefully introduced to the southern USA to control problematic algal blooms and populations of snails that affected the fish aquaculture industry. The bighead and silver carp species escaped from confinement during major flood events in the early 1990's, and entered the Mississippi River. Since this time, they have moved up through the Mississippi River system, and now occur in the Illinois River and are approaching the Chicago Ship and Sanitary Canal, which is connected, to the Great Lakes near Chicago, Illinois. It is believed that, based upon their current rate of dispersal, Asian carp could reach Lake Michigan from the Mississippi – Illinois system within this year. In addition, one Bighead carp was collected in a net in Lake Erie in 2000 by scientists at the University of Guelph and another was found in a fountain in downtown Toronto, most likely the result of intentional releases.

The International Joint Commission brings this urgent matter to your attention under its alerting capacity pursuant to the Boundary Waters Treaty of 1909 and its responsibilities under the Great Lakes Water Quality Agreement. The Commission believes that Asian carp pose a tremendous threat to the biological integrity of the Great Lakes. Evidence to date indicates that these species can grow to an immense size (over 50 inches and 50 - 110 lbs.) and can consume large quantities of food (up to 40% of their body weight daily in vegetation, zooplankton, or native mussels and fish). Silver carp have been known to reach weights of 12 lbs. in one year of life, quickly becoming so large as to no longer be vulnerable to native predators. Asian carp are extremely prolific (each female carries up to 1 million eggs), quickly becoming common in invaded habitats. Commercial fisheries within some reaches of the Mississippi River have ceased as a result of impacts from these creatures, leaving native fish populations decimated and native

mussel populations at risk. In some backwaters of the Mississippi River system, surveys during seasonal fish kills have documented populations of 97% Asian carp and only one of each of 4 native species.

The National Invasive Species Act of 1996 directed the U.S. Army Corps of Engineers to investigate and identify environmentally sound methods for preventing and reducing the dispersal of non-indigenous aquatic invasive species between the Great Lakes-St. Lawrence River and the Mississippi River drainage basins through the Chicago Ship and Sanitary Canal (the Canal). The Canal forms a man-made link between the Great Lakes and the Mississippi River system, providing a ready conduit for transfers of non-indigenous aquatic invasive species between the two systems.

The Corps of Engineers, working in cooperation with the Environmental Protection Agency, initially began design and construction of an electronic dispersal barrier to determine if the movement of invasive species from the Great Lakes basin into the Mississippi River system could be halted. The round goby (another well known non-indigenous aquatic invasive species) was the initial focus of this effort. Although this project was not completed in time to prevent the movement of the round goby into the Mississippi River, this \$2.2 million barrier system may be effective in preventing the movement of Asian carp into the Great Lakes. The electrical barrier was turned on in April 2002. However, as currently authorized, this barrier is only a limited life, experimental prototype and is scheduled to be removed at the end of the 18-month Corps investigation. It will require more extensive testing and modification to ensure that it effectively prevents movement of Asian carp into the Great Lakes. The current prototype design and funding level does not provide for a backup electrical generator, so that in the absence of electrical power, the barrier will fail (the Chicago area experiences frequent electrical supply interruptions).

In addition, a second, permanent barrier should be installed to increase the probability of stopping the movement of Asian carp into the Great Lakes. Also, it may be necessary to evaluate long-term options with broader applications, other chemical and physical measures, to prevent this waterway from becoming a "revolving door" for aquatic invasive species between the Mississippi River-Great Lakes-St. Lawrence River systems. Research on such issues will require funding.

The Commission believes that it is vital that the governments take action immediately to stop these fish from entering and establishing themselves in the Great Lakes.

The U.S. government needs to:

- 1) Appropriate funds for FY 2003 to support operation of the current temporary barrier system and acquisition of a back-up generation system for this barrier in order to ensure its continuous operation. There are no funds identified in the President's Budget for FY 2003 for operations or for acquisition of back-up generation
- 2) Obtain authorization and appropriation for the Corps of Engineers and/or other

agency to:

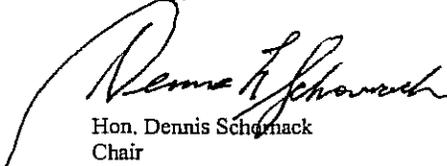
- Continuc operation of the current barrier and monitoring of its operation and acquire land for the installation of a second, more permanent barrier. The eurrent authorization of the Corps of Engineers expires in October 2003 and does not include a second barrier or authorization for continued operation.
- Investigate long-term chemical and physical environmentally sound alternatives to prevent the movement of aquatic invasive species to and from the Great Lakes.

Both governments need to consider implementing regulatory controls to prevent introduction of Asian carp via other pathways such as the food and bait fish industries, the aquarium trade, and aquaculture. Other issues that should be considered include establishing regulatory controls to prevent importation of live species of Asian carp, educating the retailers and purchasers of Asian carp for food about the threat of Asian carp to the Great Lakes ecosystem, and discouraging transport of personally-caught bait or water (boat wells, fish lockers) from one water body to another within the Mississippi River-Great Lakes-St. Lawrence River ecosystems.

Before their introduction, no one could have envisioned the full extent of the damage to the Great Lakes ecosystem and its many water-dependent economic sectors caused by zebra mussels. The effects of Asian carp on the Mississippi River system have been well documented by State Agencies and the U.S. Fish and Wildlife Service. This level of destruction in the Great Lakes would be disastrous. It is absolutely clear that the governments should do everything possible to implement coordinated actions to prevent the introduction of Asian carp to the Great Lakes, thus protecting one of our nation's most vital national resources and the largest freshwater ecosystem on earth.

The Commission is ready to provide assistance within its responsibilities and capabilities in addressing this most urgent matter. We have enclosed, for your information, copies of a letter recently sent by the Great Lakes Fishery Commission to the Appropriations Committees of the US Senate and House supporting funding for a barrier system.

Sincerely,



Hon. Dennis Schomack  
Chair  
U.S. Section  
International Joint Commission



The Rt. Hon. Herb Gray, PC, QC  
Chair  
Canadian Section  
International Joint Commission

Encl.: Letter, Great Lakes Fishery Commission to the Subcommittee on Energy and Water of the US Committee on Appropriations

**Attachment 4**

**Chicago Sanitary and Ship Canal Aquatic Nuisance Species Dispersal Barrier Advisory Panel**

Federal	State
U.S. Army Corps of Engineers - Chicago District - Rock Island District - Waterway Experiment Station U.S. Fish and Wildlife Service U.S. Environmental Protection Agency - Great Lakes National Program Office - Water Division U.S. Geological Survey - Biological Resources Division U.S. Coast Guard	Illinois Department of Natural Resources: - Illinois Natural History Survey - Department of Natural Resources - Office of Water Resources Illinois Environmental Protection Agency Illinois Pollution Control Board Minnesota Dept. of Natural Resources Michigan Dept. of Natural Resources Wisconsin Dept. of Natural Resources Mississippi Interstate Conservation Resource Association
<b>International</b>	
International Joint Commission Great Lakes Fishery Commission	Consulate General of Canada
<b>Regional, Municipal, Industrial &amp; Academic</b>	
Illinois International Port Authority Illinois River Carriers Association University of Michigan Loyola University Great Lakes Sportfishing Council University of Windsor Canal Corridor Association City of Chicago Dept. of Environment Northeast Midwest Institute Material Services Corporation Canal Corridor Association Ecological Monitoring and Assessment University of Illinois Metropolitan Water Reclamation District of Greater Chicago	Illinois-Indiana Sea Grant College Program Midwest Generation Commonwealth Edison DuPage County Forest Preserve Great Lakes Commission Friends of the Chicago River Lake Michigan Federation Great Lakes Protection Fund Lewis National University Fish Pro/Cochran & Wilken, Inc. Habitat Solutions Smith-Root, Inc. Garvey International University of Wisconsin Sea Grant Institute

**Attachment 5**  
**USACE Press Release dated August 12, 2009**



U.S. Army  
Corps of Engineers  
Chicago District

## Media Advisory

Contact: Lynne Whelan  
Telephone: (312) 846-5330  
E-Mail: [lynn.e.whelan@usace.army.mil](mailto:lynn.e.whelan@usace.army.mil)

### Army Corps of Engineers to hold press conference to announce increase in barrier operating parameters

Chicago - The U. S. Army Corps of Engineers will host a press conference at 11 a.m. on Wednesday, August 12, 2009 to announce a planned increase in the operating parameters for the electric fish dispersal barrier in the Chicago Sanitary and Ship Canal near Romeoville, Ill. The barrier is designed to deter the passage of invasive species, especially Asian carp, between the Great Lakes and Illinois River watersheds.

The press conference will take place at the Chicago Harbor Lock, 108 North Streeter Drive, Chicago (on the river just south of Navy pier). Interested media can also participate via conference call at (888) 622-5357, participant passcode 221560. Slides being used for this press conference will be available at [www.lrc.usace.army.mil](http://www.lrc.usace.army.mil).

In addition to the Army Corps, participants will include representatives from U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, and the U.S. Coast Guard.

The Corps of Engineers made the decision to increase operating parameters based on the latest, best information available, including results from preliminary genetic water testing obtained July 31<sup>st</sup> which indicate that Asian carp are closer to the barrier than previously thought. Recent research undertaken at the Corps of Engineers research laboratory indicates that the optimal operating parameters are two volts per inch, 15 Hertz frequency and 6.5 milliseconds pulse rate.

To prepare the barrier for the increase, the Corps of Engineers will begin operational testing of the equipment at 8 a.m. Wednesday, August 12, 2009. Operational testing is expected to be complete by Friday, August 14 but will continue until barrier preparation is finalized. In coordination with the Coast Guard, the Army Corps will begin navigation safety tests at the new operating parameters as early as practicable. The timing of the increase is tied to the barrier contractor's ability to change the parameters in a safe manner.

"Once we received the genetic testing results on July 31<sup>st</sup>, we immediately began making preparations to be able to increase the operating parameters," said Maj. Gen. John Peabody, commander of the Corps of Engineers Great Lakes and Ohio River Division. "The earliest we could make the changes was this Friday, so we used the available time to consult with other state and federal agencies and partners. It is clear to us that this is the appropriate action."

Attachment 6  
2009 and 2010 eDNA Results

# Asian Carp Migration



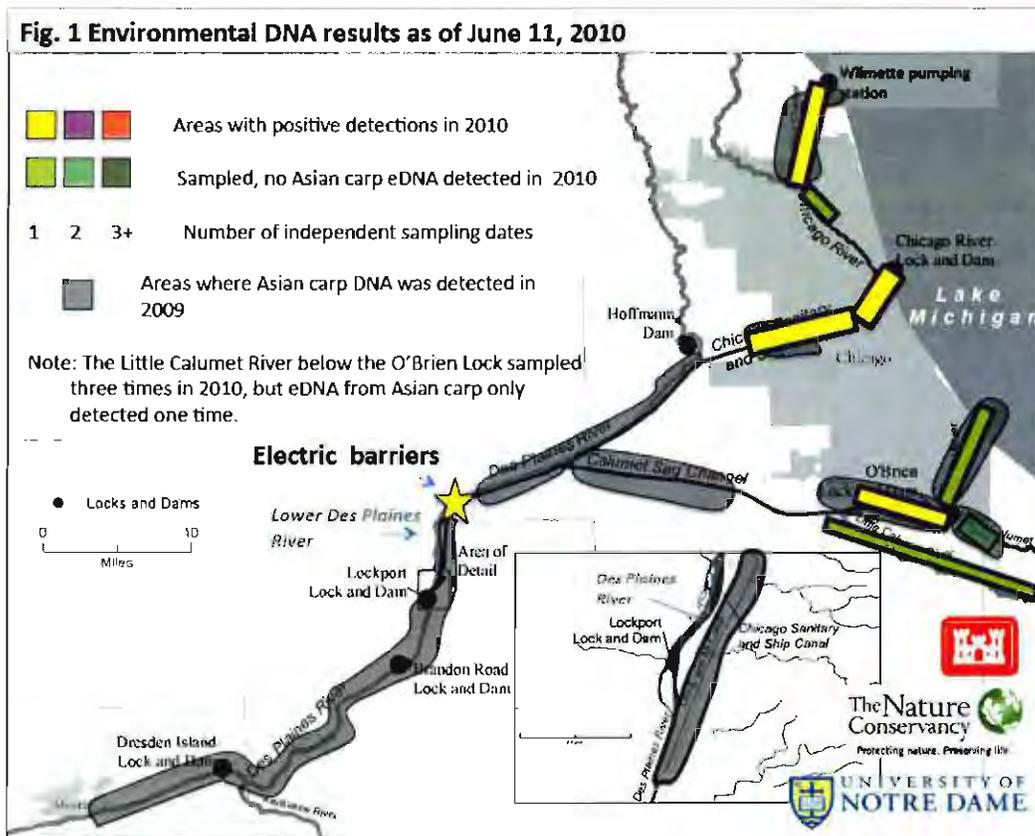
Positive silver carp detection at the base of Lemont Road in Des Plaines

- - Positive eDNA of silver carp in CSSC
- - Positive eDNA of silver carp in Des Plaines River
- - Positive eDNA detection of bighead & silver carp in Illinois & Michigan Canal



BUILDING STRONG®

Attachment 6 (current eDNA results, with summary of 2009 results)



**Attachment 7**  
**USACE Press Release dated September 18, 2009**

U.S. Army Corps of Engineers  
NEWS RELEASE  
Contact: Lynne Whelan  
Telephone: (312) 846-5330  
E-Mail: [lynne.e.whelan@usace.army.mil](mailto:lynne.e.whelan@usace.army.mil)  
Date: September 18, 2009

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## eDNA testing indicates Asian carp presence less than one mile from electric barriers

(Chicago) -- As part of its ongoing Asian carp monitoring program, the Army Corps of Engineers is continuing to work with the University of Notre Dame to use eDNA genetic testing of water samples to monitor the presence of bighead and silver carp in the Sanitary and Ship Canal, the Des Plaines River, and the I&M Canal.

On Sept. 16, 2009, the university notified the Corps of Engineers that six of 99 water samples taken from the area between the Lockport Lock and the electric barriers tested positive for the presence of silver carp. The northernmost of the positive samples was from an area less than one mile south of the electric barriers. Other recent eDNA results indicate the likely presence of Asian carp in the Des Plaines River north of the barriers and near the confluence of the Des Plaines River and the I&M Canal.

There are no Asian carp north of the barrier on the Chicago Sanitary and Ship Canal. All results from samples taken in the canal north of the electric barrier have been negative. Additional information about the recent sampling efforts is available on the Army Corps' website at [www.lrc.usace.army.mil](http://www.lrc.usace.army.mil).

"The Army Corps does not intend to alter the operating parameters of the barriers based on this new sampling information," said Col. Vincent Quarles, commander of the Army Corps of Engineers, Chicago District. "We are confident that the barriers are now operating at the optimal setting needed to deter both adult and juvenile fish."

The electric barrier system in the Chicago Sanitary and Ship Canal reduces the risk of Asian carp migrating into the Great Lakes along the most direct pathway, but other pathways do exist and need to be addressed.

The Des Plaines River is one such known potential by-pass to the electric barrier. In the event of heavy rainfall, it is possible for water from the Des Plaines to overflow into the Sanitary and Ship Canal north of the barrier location. This can potentially transfer nuisance species into the canal.

"The Corps of Engineers is already investigating potential by-passes to the barrier system, and as part of that study will work closely with our federal, state and local partners to identify workable solutions and develop conceptual designs," Quarles said. "At this time we don't have any authority that would allow us to construct any preventive measures, but we are continuing to investigate other options within existing Corps authorities."

**Attachment 8**



**Illinois Department of  
Natural Resources**

One Natural Resources Way Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

Pat Quinn, Governor  
Marc Miller, Director

Office of Water Resources • 2050 West Stearns Road • Bartlett, Illinois 60103

**PUBLIC NOTICE**

**PROPOSED ASIAN CARP BARRIER PARASITIC STRUCTURES ON  
CHICAGO SANITARY AND SHIP CANAL IN WILL COUNTY BY THE  
U.S. ARMY CORPS OF ENGINEERS**

The Chicago District of the U.S. Army Corps of Engineers, 111 N. Canal Street, Suite 600, Chicago, Illinois 60606, has applied for a permit from the Illinois Department of Natural Resources, Office of Water Resources to authorize the installation of parasitic structures at the Aquatic Nuisance Species Dispersal (Asian Carp) Barriers IIA and IIB. The barriers are located on the Chicago Sanitary and Ship Canal between river miles 296.2 and 296.4 just upstream (north) of 135<sup>th</sup> Street (Romeoville Road) near Romeoville, Illinois. This notice is being sent pursuant to state rules for construction in public waters.

The purpose of the parasitic structures is to control the electrical field produced by Barriers IIA and IIB, and prevent the electrical field from extending outside the immediate vicinity of the barriers. The parasitic structures will be installed on the bottom of the Canal. They will consist of steel frames supporting a wire rope mesh. Each of the five structures will span the width of the Canal (156 ft.) and will be 56 ft. across. The steel frames will be supported by 2 ft. high concrete blocks. The total height of the structures is 4 ft. 8 in. above the Canal bottom. The low pool water depth of the Canal at this location is 19.3 ft., which leaves 14.6 ft. of water depth after installation of the structures. No dredging is proposed as part of this project. The proposed activity is part of the on-going effort to prevent the spread of the invasive Asian Carp from the Mississippi River watershed to the Great Lakes.

The project site is located in the Southwest Quarter of Section 35, Township 37 North, Range 10 East of the Third Principal Meridian in Will County. On the back of this public notice is a project location map.

Plans for the work may be seen by appointment at the Northeastern Illinois Regulatory Programs Section office, 2050 West Stearns Road, Bartlett, Illinois 60103. Inquiries and requests to review the plans may be directed to Gary Jereb of the Bartlett Office at 847/608-3100, extension 2025. You may also contact Lynne Whelan of the U.S. Army Corps of Engineers at 312/846-5330.

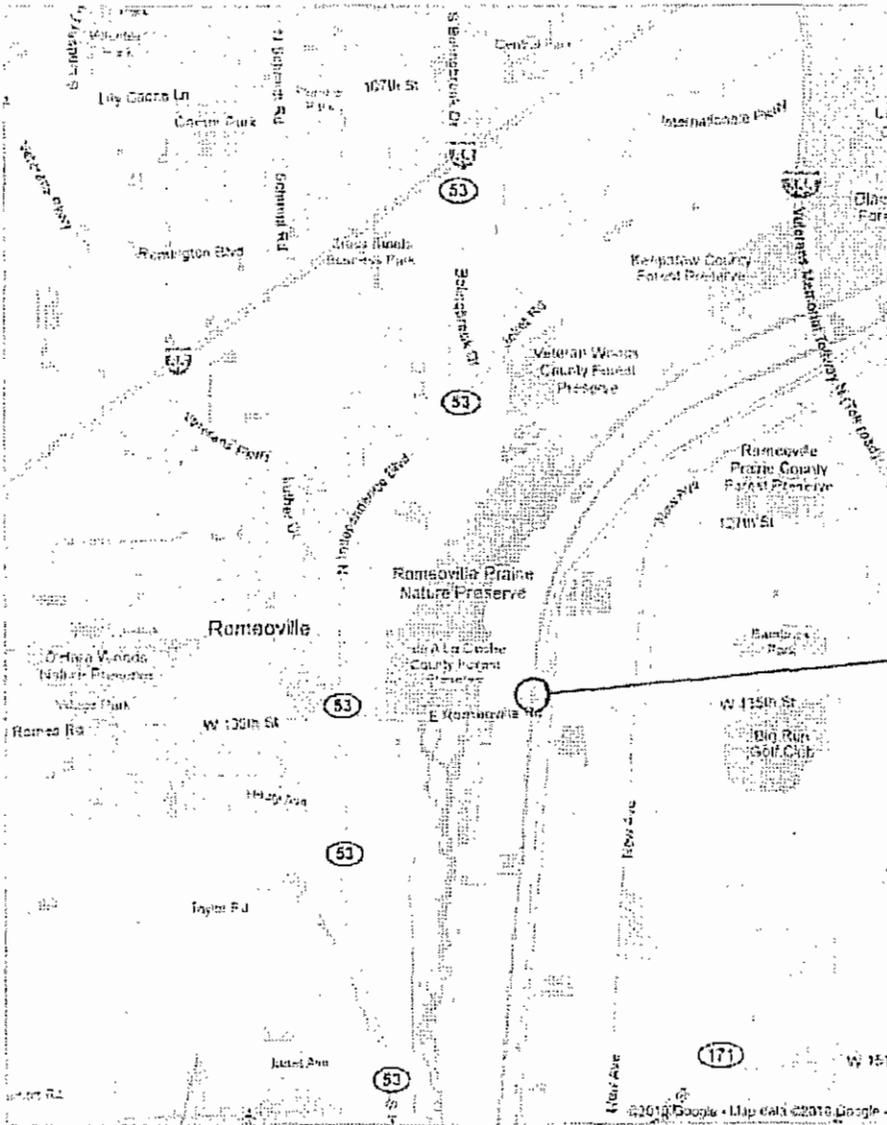
Review of this project will be limited to the following issues: 1) Any obstruction to, or interference with the navigability of the canal; 2) Any encroachment on the canal; and 3) Any impairment of the rights, interests or uses of the public on the canal or in the natural resources thereof.

You are invited to send written comments regarding the project to the IDNR/OWR Bartlett Office by August 9, 2010.

July 19, 2010

Attachment 8 (Cont.)

# LOCATION MAP



PROJECT  
SITE

**Attachment 8 (Cont.)**

Explanation of Parasitic Structures from USACE (Chuck Shea, USACE, personal communication):

The parasitic structures are a safety feature. They are designed to control the extent of the electric field generated by the barriers. We want to make sure the electric field is focused over the area where we want to deter fish, but doesn't spread farther upstream or downstream than is necessary to deter fish. The principle behind the parasitic structures is basic. By placing the structures, we are putting a large amount of metal surface area near the edges of the barriers. These metal structures will absorb electricity and limit how much electricity moves beyond the structures in the canal water.

USACE is planning to install three parasitic structures downstream of Barrier IIA, between Barrier IIA and Barrier IIB, and upstream of Barrier IIB. These are designed to control the electric fields from both barriers. The parasitic structures themselves are essentially large metal frames (see Drawing S-09) with steel cables strung back and forth over the framework. Drawing S-12 shows how the cables are connected to the frames. Unfortunately, I don't have a drawing showing an entire frame with cables on it. Hopefully, you can get a sense of the design from S-12 though. (I could send you a photo once we have one fully fabricated.) Stringing cables provides more metal surface area than having one large metal plate.

The parasitic structures will be placed on concrete supports on the bottom of the canal. The top of the structures will be approximately 5 feet above the canal bottom. This will place them more than 5 feet below the authorized navigation depth in the channel.

The structures are more effective at controlling the electric field extent when they are connected to each other to "surround the barriers". This will be done by running cables between the three structures. The cables will run through the rock walls in lined diagonal borings and only be exposed in the canal within the bottom 5 feet of the water column. On land the cables will run through manholes and ductbanks.

Attachment 9

Location of Barrier Zone in Relation to Midwest Generation's Will County Station



**Attachment 10  
(highlight added)**

**Dispersal Barrier Advisory Panel Meeting Notes  
June 15, 2010  
Chicago, Illinois**

**Attendees:** Phil Moy, WI Sea Grant; Scudder Mackey, Habitat Solutions; Sandra Morrison, USGS; Beth Murphy, USEPA-GLNPO; Greg Morris, USCG-MSU Chicago; LCDR Sean Brady, USCG-MSU Chicago; Christina Haska, GLFC; Bill Horns, WIDNR; Greg Conover, MICRA; Steve Shults, ILDNR; Sam Finney, USFWS; Pam Thiel, USFWS; Rob Simmonds, USFWS; Vic Santucci, ILDNR; Greg Sass, INHS; Dan Thomas, GLSFC; Blake Ruebush, INHS; Sarah Sinovic, Shedd Aq.; Mariah Shaver, Shedd; Melanie Napolean, Shedd; Laura seaman, Council of GL Governors; David Naftzger, CGLG; Felicia Kirksey, USACE-Chicago; Col. Vince Quarles, USACE-Chicago; Vic Serveiss, IJC; Mark Burrows, IJC; Kim Israel, IEPA; Rob Sulski, IEPA; Daniel Injerd, IDNR-OWR; Mike Cox, USACE-Rock Island; Lynne Whelan, USACE-Chicago; Sarah gross, USACE-Chicago; Mark Cornish, USACE-Rock Island; Claire Madsen, EIMCO; Jon Svendsen, U of Minnesota; Molly Sapacapan, INHS; Stephanie Liss, INHS; John Quail, Friends of the Chicago River; Joel Brammeier, Alliance for the GL; Pat Carey, City of Chicago; Lindsay Chadderton, TNC; Karen Hobbs, NRDC; Julia Wozniak, Midwest Gen; Lisa Friede, CICI

After a welcome and introductions around the room Phil Moy announced the RCC has proposed the formation of a stakeholders work group and that this may chart a new role or path for the Barrier Advisory Panel. The stakeholders group would likely formalize membership of a Barrier Panel-like body and formally expand the role of the work group to include the entire Chicago Area Waterway not just the barriers.

**Chicago District Update – Col. Quarles**

The Corps intends to improve outreach with stakeholders in part by making some changes to the website.

There has been a 30% increase in the size of the District since 2008.

Col. Quarles has rearranged the management of the barrier project; it's just getting too big for one person to handle all aspects of the effort.

Felicia Kirksey is the District Program Manager for AIS

Chuck Shea will handle the barrier

Scott Kozak will handle the efficiency study

Kelly Baerwaldt will handle monitoring

Ron Barkley will handle safety

Shamel Abu El Seoud is in charge of operations and

Dave Wethington is in charge of the Interbasin Study

The Barrier IIB building is going up. It is larger than the IIA building because all of the electrodes will be enclosed. The electronics should be installed by fall of 2010.

**Attachment 10 (cont.)**

Once construction is complete safety testing will begin. They will use the IIA protocol for IIB. A rotenone treatment may be necessary during the safety testing. The goal is to have IIB up and running in time for the next IIA maintenance cycle. This schedule is a full year sooner than originally planned.

Col. Quarles expects to get Barrier I upgraded by 2013. Right now they have authority but no funding. The design will be similar to IIB.

Optimum voltage testing

The tank test is done. The flume test report is not in.

Monitoring

We need to know what's out there. The eDNA testing will transition to the Corps and local labs. We need to understand what eDNA can do for us.

Joel Brammier – Will the capacity to run the analyses be increased?

Yes, up to 120 samples per week. We want to be able to afford it.

Efficacy

Several interim reports are now available. Report I was the emergency measures and potential for bypasses. II is the voltage study. III is the structural options for carp prevention (closing the locks) and IIIA is a study of the acoustic bubble barrier.

- I. The Des Plaines and I&M Canal. This work is to be done by Oct 28 2010. This includes placing rip-rap in the I&M Canal and building a 6 to 8 foot fence and 2 foot high Jersey wall along 13 miles of the Des Plaines River.
- II. The Voltage Study. The small flume study is done; they're waiting on the report. The large flume study has yet to occur.

Are there any efforts to reduce the population?

That is being taken up by the monitoring group.

What about conductivity? Do the tests at ERDC emulate conductivity in the Canal?

The corps is modeling the impacts on the field. 2-3" long fish were stunned in a recent test.

- III. Structural Alternatives. Lock operations will be used in support of rotenone treatments rather than directly for carp control.

IIIA. This report recommends placement of an acoustic bubble barrier below the Brandon Road Lock. This technology uses lights and sound to guide fish to an alternative route. The demonstration project will cost about \$15 million.

GLMRIS – The Great Lakes Mississippi River Interbasin Study

Chicago will be the early focus of the study, then the Corps will examine the broader GL basin connections. This is expected to be a 5-7 year study. The Corps expects to convene a stakeholder meeting in August.

**Attachment 10 (cont.)**

Joel Brammeier – Does the Corps have sufficient funds for the task?

Yes

Will you contract out the work?

Maybe

Dave Naftzger – The time frame for the project seems long. Do you need staff? How can we help?

There will have to be a full EIS. We want to be certain we get it right.

You need to look at the dynamics of the waterways. To know what is happening with rainfall etc.

Sam Finney – Will there be a bubble barrier across the main channel at the electric barrier? It will probably need a multiple beam approach.

The Brandon Road site addresses the Des Plaines River and the Canal and allows for testing.

Scudder Mackey – We need the interbasin study/project. Existing information is available; the Corps doesn't need to start at zero.

The project will address the long-term solution

These efforts should not be sequential, but rather parallel.

We will seek out that information

Phil Moy – Much effort is focused exclusively on Asian carp, we must keep in mind that we are trying to stop AIS from both directions.

The Regional Coordination Committee – Bill Bolen, USEPA

The members of the RCC have a regional authority, a mandate that involves the canal or control funding that can be applied to the Asian carp prevention effort. There has been lots of litigation in the past. New members have indicated their interest in joining; they will be on one or more of several workgroups.

A new framework was issued in June; it involves \$3.8 million in new money. It will support commercial fishing and address other vectors.

The 2011 framework will be available in July or August.

The USEPA awarded a \$1 million grant to University of Notre Dame for more eDNA work.

There will be a more robust role for the Barrier Panel to support the RCC.

Monitoring and Rapid Response Work Group – Vic Santucci, ILDNR

The WG developed a monitoring plan and actions. There is an active monthly netting program underway. We updated the rapid response plan and identified specific triggers for action. The group also assessed the risk of Asian carp beyond the barrier.

We are doing lots in the field. In Feb & Mar we undertook electrofishing and netting in the Canal. Using eDNA results as a guide, we did electrofishing and netting in the North Shore

**Attachment 10 (cont.)**

Channel. We initiated a rotenone operation on the Little Cal River at O'Brien that involved treatment of about 2.6 miles of river, plus electrofishing and netting.

We currently have crews on Bubbly Creek and the South Branch doing electrofishing and netting.

This summer we will implement the fixed site plan that includes 5 sites for electrofishing and netting on a weekly basis. We are developing a plan for eDNA sampling that will be finalized in about a month and will include effort on the Des Plaines River. Risk Assessment of Asian carp upstream of the barrier is ongoing.

We will have a radio telemetry study headed by Kelly Baerwaldt (Corps). It involves tagging Asian carp and releasing them below the barrier.

What about fish getting through the barrier?

We will set up testing for that.

We need to determine the presence and abundance of small fish. Need to figure out how to sample.

**Environmental DNA – Lindsay Chadderton, TNC**

Lindsay reviewed the sampling procedure and analysis. In 2009 UND took 1000 samples and analyzed 950. They made multiple sampling trips in some areas and left others untouched. They had multiple positive tests below the barrier, above the barrier below O'Brien Lock and in other areas on a single date.

They have taken 585 samples since March 31 on the North Shore Channel, South Branch, near O'Brien and on the Little Calumet River. There is a small gap on the North Branch. They had 1 positive near O'Brien Lock, 1 positive in the North Shore Channel and 8 positives in the South Branch. They also had one positive under the Lakeshore Drive bridge near Navy Pier.

The last positive BH samples was taken Nov 23; the last positive Silver sample was taken Mar 23.

125 samples were taken May 27 from Chicago Lock down the canal.

1 + under Lakeshore Drive; 4+ near Bubbly Creek and 3+ farther down the system = all for silver carp.

The strength of the evidence varies from strong to weak, with a strong indicator being many positive eDNA tests plus a physical specimens or visual observation. A weak result would be a single positive test with no verification.

False Positives and Alternative Pathways

**Attachment 10 (cont.)**

False positives – there is stringent QAQC in the field and the lab including blind samples, contamination controls, tests for related species. There has been no evidence of false positives.

**Alternative Pathways**

Several alternative pathways have been suggested – bilge, ballast, dead fish, waterfowl, sewage. But when we look at the broader pattern of positive tests the DNA exists in areas where ships don't go like the I&M Canal, the North Shore Channel and the Des Plaines River. The UND crew has never seen a dead Asian carp on the Canal.

UND will be making a transition, handing off eDNA testing to the Corps. The last contract sample was taken May 27th. There will be two transition trips in June. They will do duplicate sample runs at the end of June.

**Next Steps**

They want to take larger water samples and do a calibration study to examine the % of positive tests and relate them to fish abundance. They want to do a decomposition study examining how long dead fish emit detectable DNA. And they want to determine temperature and flow effects on detection rates.

The new EPA grant will support work in Lake Erie and Michigan tributaries.

Col. Quarles – thank you

Joel B. – Are standard operating manual available?

They will be

- What about the main channel and south branch positives? The results need to be clearer and more quickly communicated.

Col. Q. - Why are the number of hits important?

Joel B. - It relates to the strength of the signal. It's all about the number of hits. How did they get there? On the Corps website it was shown as a positive in the reach rather than multiple positives.

Joel B. – Who will analyze the data? We want detailed, raw data

Flowing vs still water makes a difference. Was the boat moving with the current? Were there outflows? Was it dry weather or wet weather?

All sampling events were done in dry weather. There is no surface flow in the cal-sag. In the CSSC the trip was up to downstream with no visible flow.

Mark Burrows – What about the population in the park pond? Could it be a source of DNA?

The DNA probably breaks down faster in the canal than in the lab (6-48h).

Dave N. – what will be the process when the Corps takes over?

The water will be filtered in Chicago and the filter paper will be sent to ERDC.

**Attachment 10 (cont.)**

**Operation Pelican – Steve Shults, ILDNR**

The most recent rotenone operation was triggered by a single positive DNA finding above the barrier as agreed upon by the MRRWG.

The operation gave us a standing stock estimate in the Little Cal. We would capture and remove any Asian carp and be able to correlate capture with traditional gear and actual abundance.

They wanted to complete the operation before Memorial Day and there was zero tolerance for staining recreational boat hulls. This was a concern due to the presence of several area marinas. Tracer dye was used to measure the movement of the treatment plume.

The 8-day operation involved similar partners as in the December operation. The reach treated ran from O'Brien Lock to Beaubien Woods and the Grand Cal River. Electrofishing and netting extended down to the ACME beud.

No Asian carp were seen or captured in the netting operation. Electrofishing for four 30-minute runs captured 28 species.

The flow varied during the treatment from 1000 cfs to -1000 cfs (backflow). There was also mixed flow up and downstream.

There was a greater effort to count and weight fish. Including the fish netted downstream there was 133,820 lbs. Fish in the rotenone area comprised 38 species, 20,549 individuals totaling 97,720 pounds = ~650lbs/acre. No Asian carp were seen or collected.

Divers ran six transects; not a lot of fish were on the bottom, maybe 20-25 fish per transect.

Challenges included multiple landowners, changing flow and health and safety – storms. Overall it was a successful operation. Improvements – need better communication, training and briefing.

**Invasion Control Work Group – Felicia Kirksey, Corps**

Goals of the project – impede the migration of Asian carp and prevent establishment. Identify actions for control – a long term strategy. Provide independent expertise to support the RCC.

They have an MOU and have compiled a list of tools. They will develop a strategic action plan and will consult with advisors.

**Monitoring – Julia Wozniak, Midwest Gen**

For the last 30 years monitoring of the waterway has taken place 2x/month. Electrofishing takes place at 21 stations in the Lockport, Brand Road and Dresden Island pools. In May 6 bighead were captures at the mouth of Jackson Creek, 18 miles downstream of the barrier.

The fish were 15 to 32 pounds. The DNR was notified and no other Asian carp were found.

The monitoring also determined that fish were becoming reestablished in the Lockport Pool below the barrier. The same species are present but in lower numbers.

How big were the fish?

Larger than in 2005.

Did they have eggs?

Don't know.

**Attachment 10 (cont.)**

**Carp Framework Research – Sandra Morrison, USGS**

Sandra quickly reviewed the projects about to get underway or already underway at USGS in support of the Carp Control framework.

Biological Control – Attractant Pheromones; working with the Hammond biological station and the GLFC lamprey control program

Risk Assessment – Assess suitability of tributaries as spawning habitat for Asian carp. Using live larvae to determine length of river needed for habitat suitability.

Assess risk of establishment based on available food resources – examining bighead feeding habits; pelagic zooplankton, detritus, algae. Try to understand the interaction of Asian carp and bluegreen algae; could blooms be enhanced?

Oral Delivery of Chemicals – ID possible toxicants and delivery mechanisms such as micro-matrix technology for existing toxicants. Determine registration requirements for toxicants. The work will examine potential delivery sites for toxicants including gills, skin, GI tract.

Physical Control – Help with the assessment of the problem of interbasin transfer including flooding from the Des Plaines River, groundwater migration, mapping of groundwater flow and fractures and examining Asian carp life history.

Another aspect of physical control involves the use of seismic technology to diver or kill Asian carps. Hitting the fish with strong underwater sound waves could cause immediate and delayed mortality.

Sound and electricity may adversely affect the viability of Asian carp eggs as they drift downstream from spawning areas.

All these projects will help in the control and management of other AIS as well.

Are the reports posted?

Yes, at the Columbia Research Center

**Bubble Barriers – Blake Ruebush**

Blake shared his results from 2009 and plans for work this summer.

The system cycles through sound from 500 to 2000 Hz. Most native fish hear sound between 0 and 500 Hz.

The speakers and light point downstream into the bubble curtain. 1099 fish comprising 33 species were captured upstream of the barrier and placed downstream of the barrier. 141 silver carp from the Illinois River ranging from 257 to 665 mm long were tagged and placed downstream of the barrier.

There were 33 recaptures of fish that made it back upstream – bluegill, gizzard shad, largemouth bass, and common carp. No silver carp were found upstream.

2010 – The creek is flooded right now. They need the depth to be 1m to do the work. To remove fish they use a backpack shocker, hoop nets and angling. They will estimate sampling efficiency using a depletion estimate doing three electrofishing runs on each side of the creek.

They will test the response to the barrier in both the on and off settings in 1-day trials. They will let fish accumulate below the barrier and acclimate over two-week trials.

The system is designed to guide fish to an alternative channel rather than blocking their upstream movement.

**Attachment 10 (cont.)**

Does the sound cause the fish to jump?

Yes, they may jump over the barrier.

Can you hear the noise?

Somewhat on the bank.

Does it affect wildlife?

Not at a distance of a meter or more.

Do the speakers need to be close to the bubbles?

Flow reversals could affect the effectiveness of the barrier.

**GLRI Funding – Beth Murphy, USEPA-GLNPO**

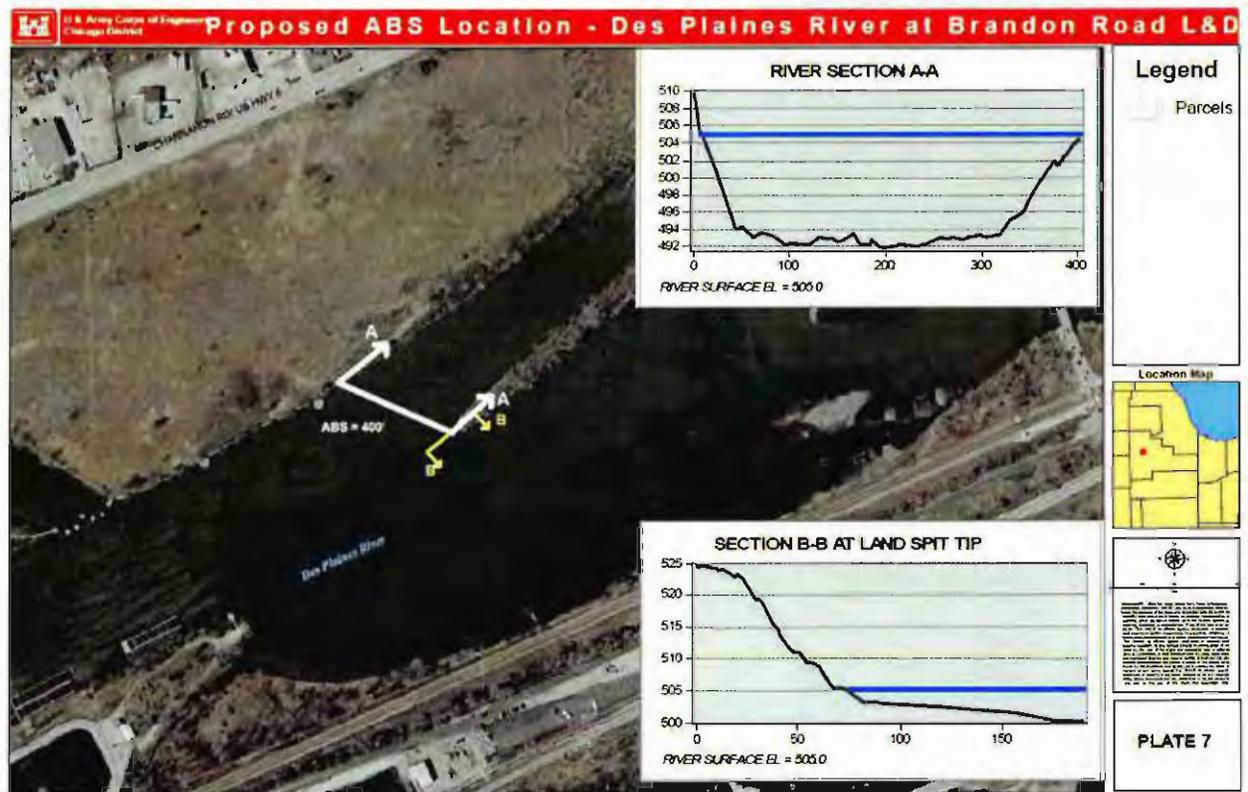
Beth described the various federal funding amounts provided for work on Asian carp.

University of Notre Dame received a \$999,372 grant for eDNA work.

IL DNR will get \$300,000 for removal of Asian carp above the barrier and an additional \$3 million for removal of Asian carp below the barrier using commercial fishing.

Efforts listed in the framework total \$78.5 million of which \$58.5 were from GLRI. Part of this funding will be used to assess possible sources for DNA including dead fish from barge decks, fish between barges, and CSOs.

**Attachment 11**  
**ABS Barrier Plan for Brandon Road Lock and Dam**



(Source: Dispersal Barrier Efficacy Study  
INTERIM IIIA – Fish Dispersal Deterrents, Illinois & Chicago Area Waterways  
Risk Reduction Study and Integrated Environmental Assessment:

[http://www.lrc.usace.army.mil/pao/02June2010\\_InterimIIIA.pdf](http://www.lrc.usace.army.mil/pao/02June2010_InterimIIIA.pdf)

Attachment 12  
Coast Guard RNA Rule dated August 26, 2009

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## The Federal Register

### The Daily Journal of the United States Government

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# Safety Zone and Regulated Navigation Area, Chicago Sanitary and Ship Canal, Romeoville, IL

A Rule by the [Coast Guard](#) on [08/26/2009](#)

## Summary

The Coast Guard is establishing a safety zone and regulated navigation area on the Chicago Sanitary and Ship Canal near Romeoville, IL. This temporary final rule places navigational and operational restrictions on all vessels transiting the navigable waters located adjacent to and over the U.S. Army Corps of Engineers' (USACE) electrical dispersal fish barrier system.

## Unified Agenda

### Regulated Navigation Areas

## Timeline

- Next Action Undetermined

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### **DATES:**

This temporary final rule is effective from 8 a.m. on August 17, 2009, until 5 p.m. on August 25, 2009.

### **ADDRESSES:**

Documents indicated in this preamble as being available in the docket are part of docket USCG-2009-0767 and are available online by going to <http://www.regulations.gov>, inserting USCG-2009-0767 in the "Keyword" box, and then clicking "Search." They are also available for inspection or copying at the Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

## FOR FURTHER INFORMATION CONTACT:

If you have questions on this temporary final rule, call CDR Tim Cummins, Deputy Prevention Division, Ninth Coast Guard District, telephone 216-902-6045. If you have questions on viewing the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202-366-9826.

## SUPPLEMENTARY INFORMATION:

### Regulatory Information

The Coast Guard is issuing this temporary final rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because the U.S. Army Corps of Engineers (USACE) made the decision, without time for a proper notice period, to permanently increase the voltage of the fish barrier to two-volts per inch in response to data which indicates that Asian carp are closer to the Great Lakes waterway system than originally thought. The electric current in the water created by the electrical dispersal barriers coupled with the uncertainty of the effects of the increased voltage poses a safety risk to commercial vessels and recreational boaters who transit the area. Therefore, it would be against the public interest to delay the issuing of this rule.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the Federal Register because of the safety risk to commercial vessels and recreational boaters who transit the area. The following discussion and the Background and Purpose section below provide additional support of the Coast Guard's determination that good cause exists for not publishing a NPRM and for making this rule effective less than 30 days after publication.

In 2002, the USACE energized a demonstration electrical dispersal barrier located in the Chicago Sanitary and Ship Canal. The demonstration barrier, commonly referred to as “Barrier I,” generates a low-voltage electric field (one-volt per inch) across the canal, which connects the Illinois River to Lake Michigan. Barrier I was built to block the passage of aquatic nuisance species, such as Asian carp, and prevent them from moving between the Mississippi River basin and Great Lakes via the canal. In 2006, the USACE completed construction of a new barrier, “Barrier IIA.” Because of its design, Barrier IIA can generate a more powerful electric field (up to four-volts per inch), over a larger area within the Chicago Sanitary and Ship Canal, than Barrier I. Testing was conducted by the USACE which indicated that two-volts per inch is the optimal voltage to deter aquatic nuisance

species. The USACE's original plan was to perform testing on the effects of the increased voltage on vessels passing through the fish barrier prior to permanently increasing the voltage. However, after receiving data that the Asian carp were closer to the Great Lakes than expected, the decision was made to immediately energize the barrier to two-volts per inch without prior testing.

A comprehensive, independent analysis of Barrier IIA, conducted in 2008 by the USACE at the one-volt per inch level, found a serious risk of injury or death to persons immersed in the water located adjacent to and over the barrier. Additionally, sparking between barges transiting the barrier (a risk to flammable cargoes) occurred at the one-volt per inch level. The Coast Guard and USACE developed regulations and safety guidelines, with stakeholder input, which addressed the risks and hazards associated with operating the barriers at the one-volt per inch level. These regulations were published in 33 CFR 165.923, 70 FR 76692 (Dec 28, 2005) and in a series of temporary final rules: 71 FR 4488 (Jan 27, 2006); 71 FR 19648 (Apr 17, 2006); 73 FR 33337 (Jun 12, 2008); 73 FR 37810 (Jul 2, 2008); 73 FR 45875 (Aug 7, 2008); 73 FR 63633 (Oct 27, 2008); 74 FR 6352 (Feb 9, 2009); and 74 FR 24722 (May 26, 2009).

The USACE recently notified the Coast Guard that it plans to immediately increase the voltage of Barrier IIA to two-volts per inch on a full-time basis starting August 17, 2009. Both Barrier IIA and Barrier I will operate at the same time; hence, Barrier I will provide a redundant back up to Barrier IIA.

In the past, the Coast Guard has advised the USACE that it has no objection to the activation of Barrier IIA and Barrier I at a maximum strength of one-volt per inch. Testing on commercial vessels transiting the canal over the fish barrier was conducted at one-volt per inch indicating that although the barriers create risks to people and vessels, those risks could be mitigated by following certain procedures. These procedures were implemented in a temporary interim rule establishing a regulated navigation area and safety zone that was published in the Federal Register on February 9, 2009 (74 FR 6352) as well as a notice of proposed rulemaking published in the Federal Register on May 26, 2009 (74 FR 24722).

However, both of these rulemakings contemplated further testing of the effects of higher voltages on commercial and recreational vessels as well as people. Because no tests have been conducted at voltages higher than one-volt per inch, the Coast Guard will implement this safety zone until such tests are conducted indicating it is safe for vessels to pass over and adjacent to the fish barrier. The regulated navigation area will be implemented only in the event that the voltage of the barriers is decreased to one-volt per inch, or it is determined after additional testing that it is safe for vessels to pass.

## Background and Purpose

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended by the National Invasive Species Act of 1996, authorized the USACE to conduct a demonstration project to identify an environmentally sound method for preventing and reducing the dispersal of non-indigenous aquatic nuisance species through the Chicago Sanitary and Ship Canal. The USACE selected an electric barrier because it is a non-lethal deterrent with a proven history, which does not overtly interfere with navigation in the canal.

A demonstration dispersal barrier (Barrier I) was constructed and has been in operation since April 2002. It is located approximately 30 miles from Lake Michigan and creates an electric field in the water by pulsing low voltage DC current through steel cables secured to the bottom of the canal. A second barrier, Barrier IIA, was constructed 800 to 1300 feet downstream of the Barrier I. The potential field strength for Barrier IIA will be up to four times that of the Barrier I. Barrier IIA was successfully operated for the first time for approximately seven weeks in September and October 2008, while Barrier I was taken down for maintenance. Construction on a third barrier (Barrier IIB) is planned; Barrier IIB would augment the capabilities of Barriers I and IIA.

In the spring of 2004, a commercial towboat operator reported an electrical arc between a wire rope and timberhead while making up a tow in the vicinity of the Barrier I. During subsequent USACE safety testing in January 2005, sparking was observed at points where metal-to-metal contact occurred between two barges in the barrier field.

The electric current in the water also poses a safety risk to commercial and recreational boaters transiting the area. The Navy Experimental Diving Unit (NEDU) was tasked with researching how the electric current from the barriers would affect a human body if immersed in the water. The NEDU final report concluded that the possible effects to a human body if immersed in the water include paralysis of body muscles, inability to breathe, and ventricular fibrillation.

A Safety Work Group facilitated by the Coast Guard and in partnership with the USACE and industry initially met in February 2008 and focused on three goals: (1) Education and public outreach, (2) keeping people out of the water, and (3) egress/rescue efforts. The Safety Work Group has regularly been attended by eleven stakeholders. Key partners include the American Waterways Operators, Illinois River Carriers Association, Army Corps of Engineers Chicago District, Coast Guard Marine Safety Unit Chicago, Coast Guard Sector Lake Michigan/Captain of the Port Lake Michigan, and the Ninth Coast Guard District.

Based on the safety hazards associated with electric current flowing through navigable waterways and the uncertainty of the effects of higher voltage on people and vessels that pass over and adjacent to the barriers, the Coast Guard is closing the waterway until proper testing can be conducted by the USACE. The Coast Guard appreciates the commercial significance of this waterway and will work

closely with the USACE to re-open the waterway as soon as possible; however, it is imperative that this safety zone be immediately enacted to avoid loss of life.

The Coast Guard plans on publishing a new temporary interim rule (TIR) with requests for comments as soon as safety testing of the waterway is completed in order to accommodate for the results of the testing. The Coast Guard will then likely follow with a supplemental notice of proposed rulemaking (SNPRM) in order to provide a complete notice and comment period for interested parties. We encourage the public to participate in the rulemaking process by submitting and reviewing comments and related materials at <http://www.regulations.gov> to the dockets associated with this TIR and any subsequent NPRM/SNPRM.

## Discussion of Rule

This temporary final rule will suspend 33 CFR 165.T09-1247. This rule also continues the suspension of 33 CFR 165.923 which was earlier suspended from January 18, 2009, until September 30, 2009 (74 FR 6352, Feb. 9, 2009). This rule places a safety zone on all waters located adjacent to and over the electrical dispersal barriers on the Chicago Sanitary and Ship Canal. The safety zone will be enforced at all times the USACE operates the electrical dispersal barrier higher than one-volt per inch until safety testing is conducted that indicates vessels may safely pass. This safety zone, which encompasses all the waters of the Chicago Sanitary and Ship Canal located between mile marker 296.0 (approximately 958 feet south of the Romeo Road Bridge) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge), will be enforced by the Captain of the Port Lake Michigan, for such times before, during, and after barrier testing as he or she deems necessary to protect mariners and vessels from damage or injury. The Captain of the Port Lake Michigan will cause notice of enforcement or suspension of enforcement of this safety zone to be made by all appropriate means to effect the widest publicity among the affected segments of the public. Such means of notification will include, but are not limited to, Broadcast Notice to Mariners and Local Notice to Mariners. The Captain of the Port will issue a Broadcast Notice to Mariners notifying the public when enforcement of the safety zone is suspended. In addition, the Captain of the Port Lake Michigan maintains a telephone line that is manned 24-hours a day, seven days a week. The public can obtain information concerning enforcement of the safety zone by contacting the Captain of the Port Lake Michigan via the Coast Guard Sector Lake Michigan Command Center at (414) 747-7182.

In the event that the barrier voltage is dropped back to one-volt per inch; it is deemed safe for vessels to transit the over and adjacent to the barriers; or the Captain of the Port Lake Michigan grants waivers to the safety zone; this rule implements a regulated navigation area to control the movements of all vessels passing over and adjacent to the barriers. This regulated navigation area is the same as those previously implemented in this area. The regulated navigation area encompasses all waters of the Chicago Sanitary and Ship Canal located between mile marker 295.0 (approximately 1.1 miles south of the Romeo Road Bridge) and mile marker 297.5 (approximately 1.3 miles northeast of

the Romeo Road Bridge). The requirements placed on commercial vessels include: (1) Vessels engaged in commercial service, as defined in 46 U.S.C. 2101(5), may not pass (meet or overtake) in the regulated navigation area and must make a SECURITE call when approaching the regulated navigation area to announce intentions and work out passing arrangements on either side; (2) commercial tows transiting the regulated navigation area must be made up with wire rope to ensure electrical connectivity between all segments of the tow; and (3) all up-bound and down-bound barge tows that contain one or more red flag barges must be assisted by a bow boat until the entire tow is clear of the regulated navigation area. Red flag barges are barges certificated to carry, in bulk, any hazardous material as defined in 46 CFR 150.115. Currently, 46 CFR 150.115 defines hazardous material as:

- (a) A flammable liquid as defined in 46 CFR 30.10-22 or a combustible liquid as defined in 46 CFR 30.10-15;
- (b) A material listed in Table 151.05, Table 1 of part 153, or Table 4 of part 154 of Title 46, CFR; or
- (c) A liquid, liquefied gas, or compressed gas listed in 49 CFR 172.101.

The USACE has informed the Coast Guard that they will continue to contract bow boat assistance for barge tows containing one or more red flag barges. Operators of tows containing one or more red flag barges should notify the bow boat contractor at least two hours prior to the need for assistance. The tow operator should then remain in contact with the contractor after the initial call for bow boat assistance and advise the contractor of any delays. Information on how to arrange for bow boat assistance may be obtained by contacting the Army Corps of Engineers at 312-846-5333, during normal working hours. The Coast Guard will also publish this information in its Local Notice to Mariners.

This temporary final rule places additional restrictions and operating requirements on all vessels within a smaller portion of the regulated navigation area, specifically, the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge). Within this smaller area, this temporary final rule prohibits all vessels from loitering, mooring or laying up on the right or left descending banks, or making or breaking tows on the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge). In addition, vessels may only enter the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge) for the sole purpose of transiting to the other side and must maintain headway throughout the transit. All vessels and persons are prohibited from dredging, laying cable, dragging, fishing, conducting salvage operations, or any other activity, which could disturb the bottom of the canal in the area located between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51

miles north east of Romeo Road Bridge). The temporary final rule also requires all personnel on open decks to wear a Coast Guard approved Type I personal flotation device while on the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

These restrictions are necessary for safe navigation of the regulated navigation area and to ensure the safety of vessels and their personnel as well as the public's safety due to the electrical discharges noted during safety tests conducted by the USACE. Deviation from this temporary final rule is prohibited unless specifically authorized by the Commander, Ninth Coast Guard District or his designated representatives. The Commander, Ninth Coast Guard District designates Captain of the Port Lake Michigan and Commanding Officer, Marine Safety Unit Chicago, as his designated representatives for the purposes of the regulated navigation area.

## Regulatory Analyses

We developed this rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on 13 of these statutes or executive orders.

## Regulatory Planning and Review

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this rule to be minimal. This determination is based the following: (1) The Chicago Sanitary and Ship Canal will be re-opened as soon as is practicable; (2) the Coast Guard expects to be able to re-open the Chicago Sanitary and Ship Canal at least to some commercial traffic as soon as the first phase of safety testing is complete; (3) interested parties were already notified by a notice of enforcement under a previous temporary interim rule that this portion of the Chicago Sanitary and Ship Canal would be closed for safety testing by the USACE from 8 a.m. until 8 p.m. August 17, 2009, to August 21, 2009; (4) if the Chicago Sanitary and Ship Canal is re-opened to commercial traffic, the USACE intends to pay the cost of the bow boat required by barge tows containing one or more red flag barges during the time this rule is effective; and (5) vessels may request permission from the Captain of the Port Lake Michigan to transit through the safety zone while the safety zone is enforced; (6) in exigent circumstances, it may be possible to temporarily drop the voltage of the fish barrier back to one-volt per inch.

Because this safety zone must be implemented immediately without a full notice and comment period, the full economic impact of this rule is difficult to determine at this time. The Coast Guard

urges interested parties to submit comments that specifically address the economic impacts of permanent or temporary closures of the Chicago Sanitary and Ship Canal.

## Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

This rule would affect the following entities, some of which might be small: the owners and operators of vessels intending to transit or anchor in a portion of the Chicago Sanitary and Ship Canal.

This safety zone and regulated navigation area will not have a significant economic impact on a substantial number of small entities for the following reasons: (1) The Chicago Ship and Sanitary Canal will be re-opened as soon as is practicable; (2) the Coast Guard expects to be able to re-open the Chicago Ship and Sanitary Canal at least to some commercial traffic as soon as the first phase of safety testing is complete; (3) interested parties were already notified by a notice of enforcement under the previous temporary interim rule that this portion of the Chicago Ship and Sanitary Canal would be closed for safety testing by the USACE from 8 a.m. until 8 p.m. August 17, 2009, to August 21, 2009, (4) if the Chicago Ship and Sanitary Canal is re-opened to commercial traffic, the USACE intends to pay the cost of the bow boat required by barge tows containing one or more red flag barges during the time this rule is effective; and (5) vessels may request permission from the Captain of the Port Lake Michigan to transit through the safety zone while the safety zone is enforced; (6) in exigent circumstances, it may be possible to temporarily drop the voltage of the fish barrier back to one-volt per inch.

As noted above, the Coast Guard intends to publish an SNPRM and specifically seek public comment as to a permanent regulated navigation area and safety zone. The Coast Guard encourages public comment regarding the potential economic impact of the regulated navigation area and safety zone.

## Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121), we offer to assist small entities in understanding the rule so that they can better evaluate its effects on them and participate in the rulemaking process.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

## Collection of Information

This rule calls for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

## Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

## Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or Tribal government, in the aggregate, or by the private sector of \$100,000,000 or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

## Taking of Private Property

This rule will not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

## Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

## Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

## Indian Tribal Governments

The Coast Guard recognizes the treaty rights of Native American Tribes. Moreover, the Coast Guard is committed to working with Tribal Governments to implement local policies and to mitigate Tribal concerns. We have determined that these regulations and fishing rights protection need not be incompatible. We have also determined that this rule does not have Tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes. Nevertheless, Indian Tribes that have questions concerning the provisions of this rule or options for compliance are encouraged to contact the point of contact listed under FOR FURTHER INFORMATION CONTACT.

## Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a "significant energy action" under that order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

## Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these

standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

## Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023-01 and Commandant Instruction M16475.ID, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4370f), and have concluded that this action is one of the category of actions which do not individually or cumulatively have significant effect on the human environment. Therefore, this rule is categorically excluded, under section 2.B.2 Figure 2-1, paragraph (34)(g), of the Instruction and neither an environmental assessment nor an environmental impact statement is required. This rule involves the establishing, disestablishing, or changing of regulated navigation areas and security or safety zones. An environmental analysis checklist and a categorical exclusion determination are available in the docket where indicated under ADDRESSES.

## List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

## **PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS**

1. The authority citation for part 165 continues to read as follows:

### **Authority:**

33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701, 3306, 3703; 50 U.S.C. 191, 195; 33 CFR 1.05-1, 6.04-1, 6.04-6, and 160.5; Pub. L. 107-295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

§ 165.T09-1247 [Suspended]

2. Section 165.T09-1247 is suspended.

3. A new temporary section 165.T09-0767 is added as follows:

§ 165.T09-0767 Safety Zone and Regulated Navigation Area, Chicago Sanitary and Ship Canal, Romeoville, IL.

(a) Safety Zone. (1) The following area is a permanent safety zone: All waters of the Chicago Sanitary and Ship Canal located between mile marker 296.0 (approximately 958 feet south of the Romeo Road Bridge) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles northeast of Romeo Road Bridge).

(2) Enforcement Period. The safety zone will be enforced from 8 p.m. on August 17, 2009, until 5 p.m. on August 25, 2009.

(3) Notice of suspension of enforcement. The Captain of the Port Lake Michigan will enforce the safety zone established by this section at all times. However, the Captain of the Port Lake Michigan may temporarily suspend enforcement of the safety zone. If enforcement of the zone is temporarily suspended, the Captain of the Port Lake Michigan will cause a notice of the suspension of enforcement of this safety zone to be made by all appropriate means to effect the widest publicity among the affected segments of the public including publication in the Federal Register as practicable, in accordance with 33 CFR 165.7(a). Such means of notification may also include but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners. The Captain of the Port Lake Michigan will also issue a Broadcast Notice to Mariners and Local Notice to Mariners notifying the public when the temporary suspension of enforcement is over and the zone is once again in operation.

(4) Regulations. (i) In accordance with the general regulations in § 165.23 of this part, entry into, transiting, or anchoring within this safety zone is prohibited unless authorized by the Captain of the Port Lake Michigan, or his on-scene representative.

(ii) This safety zone is closed to all vessel traffic, except as may be permitted by the Captain of the Port Lake Michigan or his on-scene representative.

(iii) The "on-scene representative" of the Captain of the Port is any Coast Guard commissioned, warrant or petty officer who has been designated by the Captain of the Port to act on her behalf. The on-scene representative of the Captain of the Port will be aboard a Coast Guard, Coast Guard Auxiliary, or other designated vessel or will be on shore and will communicate with vessels via VHF-FM radio or loudhailer. The Captain of the Port or his on-scene representative may be contacted via VHF-FM radio Channel 16.

(iv) Vessel operators desiring to enter or operate within the safety zone shall contact the Captain of the Port Lake Michigan or her on-scene representative to obtain permission to do so. Vessel

operators given permission to enter or operate in the safety zone must comply with all directions given to them by the Captain of the Port Lake Michigan or his on-scene representative.

(b) Regulated Navigation Area. The following is a Regulated Navigation Area: All waters of the Chicago Sanitary and Ship Canal, Romeoville, IL located between mile marker 295.0 (approximately 1.1 miles south of the Romeo Road Bridge) and mile marker 297.5 (approximately 1.3 miles northeast of the Romeo Road Bridge).

(1) Definitions. The following definitions apply to this section:

Bow boat means a towing vessel capable of providing positive control of the bow of a tow containing one or more barges, while transiting the regulated navigation area. The bow boat must be capable of preventing a tow containing one or more barges from coming into contact with the shore and other moored vessels.

Designated representatives means the Captain of the Port Lake Michigan and Commanding Officer, Marine Safety Unit Chicago.

Hazardous material means any material as defined in 46 CFR 150.115.

Red flag barge means any barge certificated to carry any hazardous material in bulk.

(2) Notice of enforcement or suspension of enforcement. The Captain of the Port Lake Michigan will enforce the Regulated Navigation Area established by this section only upon notice. Captain of the Port Lake Michigan will cause notice of the enforcement of this regulated navigation area to be made by all appropriate means to effect the widest publicity among the affected segments of the public including publication in the Federal Register as practicable, in accordance with 33 CFR 165.7

(a). Such means of notification may also include but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners. The Captain of the Port Lake Michigan will issue a Broadcast Notice to Mariners and Local Notice to Mariners notifying the public when enforcement of these safety zones is suspended.

(3) Regulations. (i) The general regulations contained in 33 CFR 165.13 apply.

(ii) All up-bound and down-bound barge tows that contain one or more red flag barges transiting through the regulated navigation area must be assisted by a bow boat until the entire tow is clear of the regulated navigation area.

(iii) Vessels engaged in commercial service, as defined in 46 U.S.C. 2101(5), may not pass (meet or overtake) in the regulated navigation area and must make a SECURITE call when approaching the regulated navigation area to announce intentions and work out passing arrangements on either side.

(iv) Commercial tows transiting the regulated navigation area must be made up with wire rope to ensure electrical connectivity between all segments of the tow.

(v) All vessels are prohibited from loitering between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(vi) Vessels may enter the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge) for the sole purpose of transiting to the other side and must maintain headway throughout the transit. All vessels and persons are prohibited from dredging, laying cable, dragging, fishing, conducting salvage operations, or any other activity, which could disturb the bottom of the canal in the area located between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(vii) All personnel on open decks must wear a Coast Guard approved Type I personal flotation device while in the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(viii) Vessels may not moor or lay up on the right or left descending banks of the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(ix) Towboats may not make or break tows if any portion of the towboat or tow is located in the waters between the Romeo Road Bridge (approximate mile marker 296.18) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(4) Compliance. All persons and vessels must comply with this section and any additional instructions or orders of the Ninth Coast Guard District Commander, or his designated representatives.

(5) Waiver. For any vessel, the Ninth Coast Guard District Commander, or his designated representatives, may waive any of the requirements of this section, upon finding that operational conditions or other circumstances are such that application of this section is unnecessary or impractical for the purposes of vessel and mariner safety.

Dated: August 17, 2009.

D.R. Callahan,

Captain, U.S. Coast Guard, Commander, Ninth Coast Guard District, Acting.

[FR Doc. E9-20619 Filed 8-24-09; 11:15 am]

**Site Feedback**



**CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER SYSTEM**

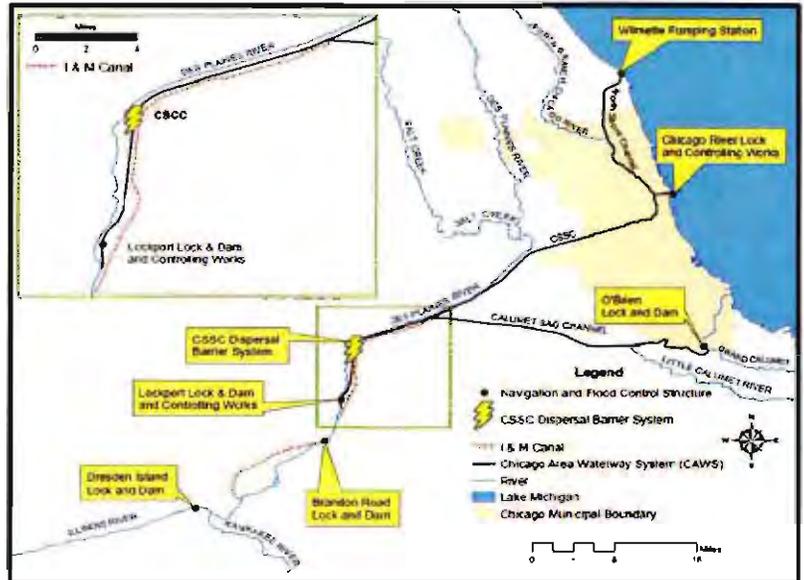
**U.S. ARMY CORPS OF ENGINEERS**

**BUILDING STRONG.**

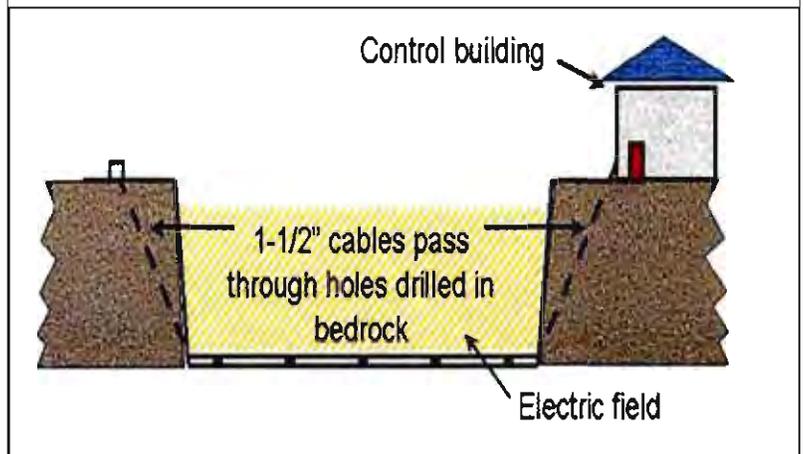
**A unique technology**

This technology has been used in other places, but typically in smaller, shallower waterways. The Chicago Sanitary and Ship Canal (CSSC) barriers are in waters that are typically 20 to 25 feet deep and approximately 160 feet wide. To our knowledge, our barriers are the largest of their kind in the world and the only one on a highly-trafficked, commercially-navigable waterway.

- It was a proven an effective technology on a smaller scale.
- It does not kill the fish.
- It does not block the flow of water or the movement of vessels. Therefore, the canal can continue to serve intended purposes for wastewater and storm water management and navigation.



Above: Chicago Area Waterway System (CAWS)  
Below: Barrier Operations



**Location**

In the CSSC, which is a man-made hydrologic connection between the Great Lakes and Mississippi River basins that was completed early in the 20th century to carry sewage away from Chicago and to provide a navigation connection between Lake Michigan and the Mississippi River basins.

**Purpose**

To reduce the risk of inter-basin transfer of fish between the Mississippi River and Great Lakes via the CSSC.

**Operation**

- Steel cables are secured to the bottom of the CSSC.
- Electrical cables connect the electrodes to the control building.
- Equipment in the control building generates a DC that is pulsed through the electrodes, creating an electric field in the water.
- At Barrier IIA, the electric field covers 130 feet of the canal upstream to downstream. At Barrier I, the electric field covers 54 feet of the canal upstream to downstream.
- The electric field is uncomfortable for the fish and they do not swim across it.



U.S. ARMY CORPS OF ENGINEERS

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## Aquatic Invasive Species Dispersal Barriers



**Barrier I (Demonstration):**

- In continuous operation
- since 2002 @ 1 volt/inch, 5 hertz (cycles per second), 4 ms (pulse duration in milliseconds)
- Rehabilitated in October 2008

**Barrier I (Permanent):**

- Located at river mile 296.5 of the Illinois waterway
- Upgrade to a permanent barrier authorized

**Barrier IIB:**

- Goal is to be operated concurrently with Barrier IIA.
- Construction Ongoing
- Activation in 2010



**Other Ongoing Efforts:**

- Asian Carp Monitoring (electro-fishing, eDNA, netting, ultrasonic telemetry)
- Barrier Safety Testing
- Research on Optimum Operating Parameters
- Implementation of Solutions to Potential Barrier Bypasses During Flood Events

**Barrier IIA:**

- Located 1,150 feet downstream of Barrier I
- In continuous operation since April 2009 @ 1 volt/inch, 5 hertz, 4 ms
- Increased to 2 volts/inch, 15 hertz, 6.5 ms in August 2009

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### Efficacy Studies

- USACE was directed in the Water Resources Development Act of 2007 to conduct a study of a range of options or technologies for reducing impacts of hazards that may reduce the efficacy of the Electrical Dispersal Barriers through analyzing various technical, environmental and biological factors. The dispersal barriers focus on the largest, most direct pathway, while the efficacy studies address other potential pathways.
- Interim Report I: Identified areas of potential bypass and recommended construction of fence and concrete barriers along the Des Plaines River and a stone blockage in the I & M Canal. These measures reduce the risk of Asian carp bypassing the barriers via flanking waterways.
- Interim Report II: Ongoing research to determine optimum operating parameters for the dispersal barriers.
- Interim Report III: Presents an evaluation of the potential for risk reduction that might be achieved through changes in the operation of the CAWS structures, such as locks, sluice gates and pumping stations. The report recommended the construction and installation of bar screens for two sluice gates at the O'Brien Lock. Similar screens were installed on two gates by the Metropolitan Water Reclamation District (MWRD) at the Chicago Lock/ Chicago River Controlling Works.
- Interim Report IIIA: Considered how technologies such as bubbles, lights and sounds can inhibit Asian carp movement and recommended construction of an acoustic bubble curtain with strobe lights (ABS fish deterrent) as a demonstration project.
- Efficacy reports are available on the Chicago District Web site, and the final efficacy report will be available in 2011.

Attachment 14  
Coast Guard RNA Rule dated January 6, 2010

This site displays a prototype of a "Web 2.0" version of the daily Federal Register. It is not an official legal edition of the Federal Register, and does not replace the official print version or the official electronic version on GPO's Federal Digital System (FDsys.gov).

The articles posted on this site are XML renditions of published Federal Register documents. Each document posted on the site includes a link to the corresponding official PDF file on FDsys.gov. This prototype edition of the daily Federal Register on FederalRegister.gov will remain an unofficial informational resource until the Administrative Committee of the Federal Register (ACFR) issues a regulation granting it official legal status. For complete information about, and access to, our official publications and services, go to the [OFR.gov website](http://OFR.gov).

The OFR/GPO partnership is committed to presenting accurate and reliable regulatory information on FederalRegister.gov with the objective of establishing the XML-based Federal Register as an ACFR-sanctioned publication in the future. While every effort has been made to ensure that the material on FederalRegister.gov is accurately displayed, consistent with the official SGML-based PDF version on FDsys.gov, those relying on it for legal research should verify their results against an official edition of the Federal Register. Until the ACFR grants it official status, the XML rendition of the daily Federal Register on FederalRegister.gov does not provide legal notice to the public or judicial notice to the courts.

## The Federal Register

### The Daily Journal of the United States Government

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# Safety Zone and Regulated Navigation Area, Chicago Sanitary and Ship Canal, Romeoville, IL

A Rule by the Coast Guard on 01/06/2010

## Summary

The Coast Guard is establishing both a safety zone and a Regulated Navigation Area (RNA) on the Chicago Sanitary and Ship Canal (CSSC) near Romeoville, IL. This temporary interim rule places navigational, environmental and operational restrictions on all vessels transiting the navigable waters located adjacent to and over the U.S. Army Corps of Engineers' (USACE) electrical dispersal fish barrier system.

## Unified Agenda

### Regulated Navigation Areas

## Timeline

- Next Action Undetermined

## Table of Contents

- DATES:
- ADDRESSES:
- FOR FURTHER INFORMATION CONTACT:
- SUPPLEMENTARY INFORMATION:
- Public Participation and Request for Comments
- Submitting Comments
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- Privacy Act
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- RNA Good Cause Discussion
- Safety Zone Good Cause Discussion
- Background and Purpose
- Discussion of Rule
- Regulatory Analyses
- Regulatory Planning and Review
- Small Entities
- Assistance for Small Entities
- Collection of Information
- Federalism
- Unfunded Mandates Reform Act
- Taking of Private Property
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- Protection of Children
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- Environment
- List of Subjects in 33 CFR Part 165
- PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS
- Authority:

## DATES:

Effective Date: In this rule, § 165.T09-1004 is removed, effective January 6, 2010. Section 165.923 is suspended, and a new temporary section, § 165.T09-1080, is added in the CFR effective January 6, 2010 until 5 p.m. on December 1, 2010. This rule is effective with actual notice for purposes of enforcement beginning at 5 p.m. on December 18, 2009.

Comment Date: Comments and related material must reach the Docket Management Facility on or before February 5, 2010.

## ADDRESSES:

You may submit comments identified by docket number USCG-2009-1080 using any one of the following methods:

(1) Federal eRulemaking Portal: <http://www.regulations.gov>.

(2) Fax: 202-493-2251.

(3) Mail: Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001.

(4) Hand delivery: Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329. To avoid duplication, please use only one of these methods. For instructions on submitting comments, see the "Public Participation and Request for Comments."

## FOR FURTHER INFORMATION CONTACT:

If you have questions on this temporary rule, call CDR Tim Cummins, Deputy Prevention Division, Ninth Coast Guard District, telephone 216-902-6045. If you have questions on viewing the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202-366-9826.

## SUPPLEMENTARY INFORMATION:

### Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted, without change, to <http://www.regulations.gov> and will include any personal information you have provided.

### Submitting Comments

If you submit a comment, please include the docket number for this rulemaking (USCG-2009-1080), indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online, or by fax, mail or hand delivery, but please use only one of these means. We recommend that you include

your name and a mailing address, an e-mail address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to <http://www.regulations.gov>, select the Advanced Docket Search option on the right side of the screen, insert "USCG-2009-1080" in the Docket ID box, press Enter, and then click on the balloon shape in the Actions column. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8 1/2 by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period and may change this rule based on your comments.

## Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to <http://www.regulations.gov>, select the Advanced Docket Search option on the right side of the screen, insert USCG-2009-1080 in the Docket ID box, press Enter, and then click on the item in the Docket ID column. You may also visit either the Docket Management Facility in Room W12-140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

## Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act notice regarding our public dockets in the January 17, 2008 issue of the Federal Register ([73 FR 3316](#)).

## Public Meeting

We do not now plan to hold a public meeting. But you may submit a request for one on or before January 29, 2009 using one of the four methods specified under ADDRESSES. Please explain why you believe a public meeting would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the Federal Register.

## Regulatory Information

The Coast Guard is issuing this temporary interim rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” For the reasons discussed below, under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule based upon data which indicates that Asian carp are much closer to the Great Lakes waterway system than originally thought. The possibility exists that vessels will transport Asian carp eggs, gametes or juvenile fish safely through the electrical dispersal barrier in water attained south of the fish barrier that is then transported and discharged on the other side of the barrier. The Asian carp are the subject of an ongoing multi-agency study aimed at preventing their introduction into the great lakes. The proposed temporary safety zone and RNA will allow that multi-agency effort to progress towards its goal of protecting people, vessels, and the environment from the hazards associated with the possible introduction of invasive species such as Asian carp into the Great Lakes.

As such, the USCG must take immediate steps in order to prevent possible introduction of Asian carp before the ongoing effort can be completed. Therefore, it would be against the public interest to delay the issuing of this rule. Additionally, for the same reasons, the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the Federal Register under 5 U.S.C. 553(d)(3).

## RNA Good Cause Discussion

In 2002, the USACE energized a demonstration electrical dispersal barrier located in the CSSC. The demonstration barrier, commonly referred to as “Barrier I,” generates a low-voltage electric field (one-volt per inch) across the canal, which connects the Illinois River to Lake Michigan. Barrier I was built to block the passage of aquatic nuisance species, such as Asian carp, and prevent them from moving between the Mississippi River basin and Great Lakes via the canal. In 2006, the USACE completed construction of a new barrier, “Barrier IIA.” Because of its design, Barrier IIA can generate a more powerful electric field (up to four-volts per inch), over a larger area within the CSSC, than Barrier I. Testing was conducted by the USACE which indicated that two-volts per inch is the optimal voltage to deter aquatic nuisance species. The USACE's original plan was to perform testing on the effects of the increased voltage on vessels passing through the fish barrier prior to permanently increasing the voltage. However, after receiving data that the Asian carp were closer to the Great Lakes than expected, the decision was made to energize the barrier to two-volts per inch without prior testing.

A comprehensive, independent analysis of Barrier IIA, conducted in 2008 by the USACE at the one-volt per inch level, found a serious risk of injury or death to persons immersed in the water located adjacent to and over the barrier. Additionally, sparking between barges transiting the barrier (a risk to flammable cargoes) occurred at the one-volt per inch level. The Coast Guard and USACE developed regulations and safety guidelines, with stakeholder input, which addressed the risks and hazards associated with operating the barriers at the one-volt per inch level. These regulations were published in 33 CFR § 165.923, 70 FR 76692 (Dec 28, 2005) and in a series of temporary final rules published in the Federal Register: 71 FR 4488 (Jan 27, 2006); 71 FR 19648 (Apr 17, 2006); 73 FR 33337 (Jun 12, 2008); 73 FR 37810 (Jul 2, 2008); 73 FR 45875 (Aug 7, 2008); and 73 FR 63633 (Oct 27, 2008).

In early August, 2009, the USACE notified the Coast Guard that it planned to immediately increase the voltage of Barrier IIA to two-volts per inch on a full-time basis starting August 17, 2009. Both Barrier IIA and Barrier I will operate at the same time; hence, Barrier I will provide a redundant back-up to Barrier IIA.

In the past, the Coast Guard advised the USACE that it has no objection to the activation of Barrier IIA and Barrier I at a maximum strength of one-volt per inch. Testing on commercial vessels transiting the canal over the fish barrier was conducted at one volt per inch indicating that although the barriers create risks to people and vessels, those risks could be mitigated by following certain procedures. These mitigation procedures for the barrier operating at one volt per inch were implemented in a temporary interim rule establishing an RNA and a safety zone that was published in the Federal Register on February 9, 2009 (74 FR 6352), as well as an NPRM published in the Federal Register on May 26, 2009 (74 FR 24722).

However, both of these rulemakings reflected the prior operating parameters of the dispersal barriers and contemplated further testing of the effects of higher voltages on commercial and recreational vessels as well as people. The USACE began safety testing in consultation with the U.S. Coast Guard on August 17, 2009, to test various configurations of commercial tugs and barges as well as recreational vessels with non-conductive hulls passing through the barriers at increased voltage and operating parameters. Because the USACE decided that the voltage and operating parameters had to be immediately increased prior to the completion of safety testing, the USCG determined that temporary closure of the canal to all vessels through a safety zone was necessary until the risks were better understood. This resulted in successive temporary final rules that suspended the prior temporary interim rule. These temporary final rules enacting safety zones were published in the Federal Register on August 26, 2009 (74 FR 43055), September 2, 2009 (74 FR 45318), September 29, 2009 (74 FR 49815), and November 13, 2009 (74 FR 58545).

Testing and analysis of the risks to persons and vessels are ongoing. Until those risks are well understood, immediate action is needed to prevent injury to people and vessels from effects of

Barrier IIA. As a result, it is contrary to the public interest to provide a full notice and comment period prior to implementation of, or to delay the effective date of, the RNA included in this rule.

## Safety Zone Good Cause Discussion

In November 2009, the USACE made an announcement that it had discovered environmental deoxyribonucleic acid (e-dna) from Asian carp north of the fish barrier. This discovery indicates that Asian carp are living in the waterways north of the fish barrier in the Cal-Sag Channel but south of the O'Brien Locks. Under 50 CFR part 16, Asian carp are listed as an injurious species of fish and as such are illegal for interstate transportation. A permit is required to transport all viable eggs, gametes, as well as live Silver or Asian carp. Historically, vessels, including barges, have taken on water south of the barrier and transported it across the fish barriers, either knowingly or unknowingly, as bilge, ballast, or other non-potable water. This practice is considered a possible bypass vector for transporting Asian carp eggs or juvenile fish from south of the barrier to north of the barrier. Immediate action is needed to halt this practice, thereby closing down this possible bypass vector. For this reason, providing a full notice and comment period and delaying the effective date for the safety zone including in this temporary interim rule would be contrary to the public interest.

## Background and Purpose

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended by the National Invasive Species Act of 1996, authorized the USACE to conduct a demonstration project to identify an environmentally sound method for preventing and reducing the dispersal of non-indigenous aquatic nuisance species through the CSSC. The USACE selected an electric barrier because it is a non-lethal deterrent with a proven history, which does not overtly interfere with navigation in the canal.

A demonstration dispersal barrier (Barrier I) was constructed and has been in operation since April 2002. It is located approximately 30 miles from Lake Michigan and creates an electric field in the water by pulsing low voltage DC current through steel cables secured to the bottom of the canal. A second barrier, Barrier IIA, was constructed 800 to 1300 feet downstream of the Barrier I. The potential field strength for Barrier IIA is up to four times that of the Barrier I. Barrier IIA was successfully operated for the first time for approximately seven weeks in September and October 2009, while Barrier I was taken down for maintenance. Construction on a third barrier (Barrier IIB) is planned; Barrier IIB would augment the capabilities of Barriers I and IIA.

In the spring of 2004, a commercial towboat operator reported an electrical arc between a wire rope and timberhead while making up a tow in the vicinity of Barrier I. During subsequent USACE safety testing, sparking was observed at points where metal-to-metal contact occurred between two barges in the barrier field.

The electric current in the water also poses a safety risk to commercial and recreational boaters transiting the area. The Navy Experimental Diving Unit (NEDU) was tasked with researching how the electric current from the barriers would affect a human body if immersed in the water. The NEDU final report concluded that the possible effects to a human body if immersed in the water include paralysis of body muscles, inability to breathe, and ventricular fibrillation.

A Safety Work Group facilitated by the Coast Guard and in partnership with the USACE and industry initially met in February 2008 and focused on three goals: (1) Education and public outreach, (2) keeping people out of the water, and (3) egress/rescue efforts. The Safety Work Group has regularly been attended by eleven stakeholders, including industry representatives such as the American Waterways Operators and Illinois River Carriers Association, the Army Corps of Engineers Chicago District, Coast Guard Marine Safety Unit Chicago, Coast Guard Sector Lake Michigan/Captain of the Port Lake Michigan, and the Ninth Coast Guard District.

Based on the safety hazards associated with electric current flowing through navigable waterways and the uncertainty of the effects of higher voltage on people and vessels that pass over and adjacent to the barriers, the Coast Guard is implementing operational restrictions, via an RNA, on vessels until proper testing and analysis of such testing can be completed by the USACE. The Coast Guard appreciates the commercial significance of this waterway and will work closely with the USACE to reduce operational restrictions as soon as possible; however, it is imperative that the RNA be immediately enacted to avoid loss of life.

On December 2, 2009, rotenone, a fish toxicant, was applied to approximately six miles of the CSSC while barrier maintenance was conducted to ensure no fish were able to transit the barrier. One Silver Carp was found in the area immediately south of the barrier. Similarly e-dna was detected north of the barrier, in an area of the Cal-Sag Channel immediately below the O'Brien Locks and at the confluence of the Cal-Sag Channel and the CSSC. This e-dna detects the presence of Carp, but in the subsequent fishing operations, we were not able to determine a number or mass of the fish present.

Affected parties are reminded that the USACE may again raise the operating parameters of the fish barrier in response to ongoing tests regarding the effectiveness of the barrier on the Asian carp. In addition, when USACE activates barrier IIB, additional testing will be necessary to ensure the safety of vessels. If this occurs, it is possible that fewer vessels will be given permission to enter the RNA and safety zone until further safety testing and analysis can be completed and current timelines for a final rule will be extended.

## Discussion of Rule

This temporary interim rule removes 33 CFR 165.T09-1004, the last temporary rule published to address risks associated with Barrier IIA and the application of rotenone to the CSSC. This rule also

suspends 33 CFR 165.923 until 5 p.m. on December 1, 2010. This rule places an RNA on all waters located adjacent to, and over, the electrical dispersal barriers on the CSSC between mile marker 295.0 (approximately 1.1 miles south of the Romeo Road Bridge) and mile marker 297.5 (approximately 1.3 miles northeast of the Romeo Road Bridge). It also places a safety zone over a smaller portion of these same waters. The RNA and safety zone will be enforced at all times until the USACE suspends operation of the electrified fish barrier and the Asian carp are no longer deemed an environmental threat to the Great Lakes. This temporary rule is to remain in effect until December 1, 2010 in order to allow sufficient time for the Coast Guard to publish a final rule based on comments received from the public in response to this temporary interim rule. At the same time, the Coast Guard expects the USACE to energize barrier IIB, which is likely to require additional safety testing. This RNA and safety zone are also required during that testing period to prevent the possible loss of life and damage to property.

The RNA encompasses all waters of the Chicago Sanitary and Ship Canal located between mile marker 295.0 (approximately 1.1 miles south of the Romeo Road Bridge) and mile marker 297.5 (approximately 1.3 miles northeast of the Romeo Road Bridge). The requirements placed on all vessels include: (1) Vessels must be greater than twenty feet in length; (2) Vessel must not be a personal watercraft of any kind (i.e., jet skis, wave runners, kayak, etc.); (3) All up-bound and down-bound commercial tows that consist of barges carrying flammable liquid cargos (grade A through C, flashpoint below 140 degrees Fahrenheit, or heated to within 15 degrees Fahrenheit of flash point) must engage the services of a bow boat at all times until the entire tow is clear of the RNA; (4) Vessels engaged in commercial service, as defined in 46 U.S.C. 2101(5), may not pass (meet or overtake) in the RNA and must make a SECURITE call when approaching the RNA to announce intentions and work out passing arrangements on either side; (5) Commercial tows transiting the RNA must only be made up with wire rope to ensure electrical connectivity between all segments of the tow; (6) All vessels are prohibited from loitering in the RNA; (7) Vessels may enter the RNA for the sole purpose of transiting to the other side and must maintain headway throughout the transit; (8) All vessels and persons are prohibited from dredging, laying cable, dragging, fishing, conducting salvage operations, or any other activity, which could disturb the bottom of the RNA; (9) All personnel on vessels transiting the RNA should remain inside the cabin, or as inboard as practicable. If personnel must be on open decks, they must wear a Coast Guard approved personal flotation device; (10) Vessels may not moor or lay up on the right or left descending banks of the RNA; and, (11) Towboats may not make or break tows if any portion of the towboat or tow is located in the RNA.

This temporary final rule places additional restrictions on all vessels transiting a safety zone that encompasses a smaller portion of the CSSC. The safety zone consists of all the waters of the CSSC located between 270 feet south of the Romeo Road Bridge (mile marker 296.1) to the south side of the aerial pipeline (mile marker 296.7). Vessels are prohibited from transiting the safety zone with non-potable water on board in any space except for water on board that will not be discharged on the other side of the safety zone. Vessels must notify and obtain permission from the Captain of the

Port Sector Lake Michigan prior to transiting the safety zone if they intend to discharge any non-potable water attained on one-side of the safety zone on the other side of the zone. This includes water in void spaces being unintentionally introduced through cracks or other damage to the hull. The Captain of the Port Sector Lake Michigan maintains a telephone line that is manned 24 hours a day, seven days a week. The public can obtain information concerning information about the RNA and safety zone by contacting the Captain of the Port Lake Michigan via the Coast Guard Sector Lake Michigan Command Center at 414-747-7182.

These restrictions are necessary for safe navigation of the RNA and to ensure the safety of vessels and their personnel as well as the public's safety due to the electrical discharges noted during safety tests conducted by the USACE. They are also necessary to protect from the harms presented by a potential invasion of Asian carp in Lake Michigan. Deviation from this temporary final rule is prohibited unless specifically authorized by the Commander, Ninth Coast Guard District or his designated representatives. The Commander, Ninth Coast Guard District designates Captain of the Port Sector Lake Michigan and Commanding Officer, Marine Safety Unit Chicago, as his designated representatives for the purposes of the RNA.

The Captain of the Port Sector Lake Michigan retains the authority to permit vessels to enter the safety zone. As safety testing results continue to be analyzed and become available, the Captain of the Port Sector Lake Michigan will make every effort to permit vessels to pass for which there is a decrease of known risk of injury or property damage. If vessels wish to enter the safety zone they must receive permission from the Captain of the Port Lake Michigan to do so and must follow all orders from the Captain of the Port Sector Lake Michigan or her designated representative while in the zone.

If, for any reason, the safety zone or RNA are at any time suspended, the Captain of the Port Lake Michigan will cause notice of the enforcement of the safety zone and/or RNA to be made by all appropriate means to effect the widest publicity among the affected segments of the public.

## **Regulatory Analyses**

We developed this temporary interim rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on 13 of these statutes or executive orders.

## **Regulatory Planning and Review**

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

Because this regulated navigation area and safety zone must be implemented immediately without a full notice and comment period, the full economic impact of this rule is difficult to determine at this time.

This rule will affect commercial traffic transiting the electrical dispersal fish barrier system and surrounding waters. The ACOE maintains data about the commercial vessels using the Lockport Lock and Dam, which provides access to the proposed RNA. According to ACOE data, the commercial traffic through the Lockport Lock consisted of 147 towing vessels and 13,411 barges during 2007. Of those, 96 towing vessels and 2,246 barges were handling red flag cargo (i.e., those carrying hazardous, flammable, or combustible material in bulk).

Recreational vessels will also be affected under this rule. According to ACOE data, recreational vessels made up 66 percent of the usage of the Lockport Lock and Dam in 2007. Operation and maintenance of the ACOE fish barrier will continue to affect recreational vessels as they have in the past. The majority of these vessels will still be able to transit the RNA under this rule. The potential cost associated with this rule will include bow boat assistance for red flag vessels and the potential cost associated with possible delays or inability to transit the RNA for those vessels transporting non-potable water attained on one side of the barrier for discharge on the other.

Operators have been using bow boat assistance, under prior temporary rules, to mitigate the risk posed by the electrical dispersal fish barrier system operated by ACOE. Based on information from the Ninth Coast Guard District, several tow boat operators are already refraining from permitting the discharge of non-potable water attained on one side of the barrier to the other.

We expect some provisions in this rule will not result in additional costs. These include loitering, mooring and PFD requirements. Similar to prior temporary rules, vessels are prohibited from mooring or loitering in the RNA and all personnel in the RNA on open decks are required to wear a Coast Guard approved Type I personal flotation device. Most commercial and recreational operators will have required flotation devices on board as a result of other requirements and common safe boating practices. Based on the past temporary rules, we observed no information and received no data to confirm there were additional costs as a result of these provisions.

In addition, the initial test results at the current operating parameters of two volts per inch indicate that the majority of commercial and recreational vessels that regularly transit the CSSC will be permitted to enter the regulated navigation area and safety zone under certain conditions. Those vessels that will not be permitted to pass through the barrier may be permitted, on a case by case basis, to pass via a dead ship tow by a commercial vessel that is able to transit.

We expect the benefits of this rule will mitigate marine safety risks as a result of the operation and maintenance of the fish barriers by the ACOE. This rule will allow commerce to continue through the waters adjacent to and over these barriers. This rule will also mitigate the possibility of an Asian

Carp introduction into Lake Michigan, and the Great Lakes system, as a result of commerce through the CSSC.

At this time, based on available information from past temporary rules, we anticipate that this rule will not be economically significant under Executive Order 12866 (i.e., have an annual effect on the economy of \$100 million or more). The Coast Guard urges interested parties to submit comments that specifically address the economic impacts of this temporary interim rule. Comments can be made online by following the procedures outlined above in the ADDRESSES section.

## Small Entities

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601-612) requires agencies to consider whether regulatory actions would have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. An RFA analysis is not required when a rule is exempt from notice and comment rulemaking under 5 U.S.C. 553(b). The Coast Guard determined that this rule is exempt from notice and comment rulemaking pursuant to 5 U.S.C. 553(b)(B). Therefore, an RFA analysis is not required for this rule. The Coast Guard, nonetheless, expects that this temporary final rule will not have a significant economic impact on a substantial number of small entities.

## Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121), we offer to assist small entities in understanding the rule so that they can better evaluate its effects on them and participate in the rulemaking process.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

## Collection of Information

This rule calls for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

## **Federalism**

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

## **Unfunded Mandates Reform Act**

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

## **Taking of Private Property**

This rule will not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

## **Civil Justice Reform**

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

## **Protection of Children**

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

## **Indian Tribal Governments**

The Coast Guard recognizes the treaty rights of Native American Tribes. Moreover, the Coast Guard is committed to working with tribal governments to implement local policies and to mitigate tribal concerns. We have determined that these regulations and fishing rights protection need not be incompatible. We have also determined that this rule does not have tribal implications under

Executive Order 13175, Consultation and Coordination with Indian tribal governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. Nevertheless, Indian tribes that have questions concerning the provisions of this rule or options for compliance are encouraged to contact the point of contact listed under FOR FURTHER INFORMATION CONTACT.

## Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a “significant energy action” under that order because it is not a “significant regulatory action” under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

## Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

## Environment

We have analyzed this temporary rule under Department of Homeland Security Management Directive 023-01 and Commandant Instruction M16475.ID, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4370f), and have concluded that this action is one of the category of actions which do not individually or cumulatively have significant effect on the human environment. Therefore, this rule is categorically excluded, under section 2.B.2 Figure 2-1, paragraph (34)(g), as well as paragraph (27) of the Instruction and neither an environmental assessment nor an environmental impact statement is required. This rule involves the establishing, disestablishing, or changing of regulated navigation

areas and security or safety zones. This temporary rule will assist the aforementioned multi-agency effort to research and manage the possible impact of the Asian carp on the Great Lakes. An environmental analysis checklist and a categorical exclusion determination are available in the docket where indicated under ADDRESSES.

## List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

## PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

1. The authority citation for part 165 continues to read as follows:

### Authority:

33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701, 3306, 3703; 50 U.S.C. 191, 195; 33 CFR 1.05-1, 6.04-1, 6.04-6, and 160.5; Pub. L. 107-295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

§ 165.T09-1004 [Removed]

2. Remove § 165.T09-1004.

§ 165.923 [Suspended]

3. Suspend § 165.923 from January 6, 2010 until 5 p.m. on December 1, 2010.

4. Add new temporary § 165.T09-1080 as follows:

§ 165.T09-1080 Safety Zone and Regulated Navigation Area, Chicago Sanitary and Ship Canal, Romeoville, IL.

(a) Safety Zone.

(1) The following area is a temporary safety zone: All waters of the CSSC located between mile marker 296.1 (approximately 958 feet south of the Romeo Road Bridge) and mile marker 296.7 (aerial pipeline located approximately 0.51 miles north east of Romeo Road Bridge).

(2) Regulations.

(i) All vessels are prohibited from transiting the safety zone with any non-potable water on board if they intend to release that water in any form within, or on the other side of the safety zone. Non-potable water includes but is not limited to any water taken on board to control or maintain trim, draft, stability or stresses of the vessel, or taken on board due to free communication between the hull of the vessel and exterior water. Potable water is water treated and stored aboard the vessel that is suitable for human consumption.

(ii) Vessels with non-potable water onboard are permitted to transit the safety zone if they have taken steps to prevent the release of that water in any form, in or on the other side of, the safety zone, or alternatively if they have plans to dispose of the water in a biologically sound manner.

(iii) Vessels with non-potable water aboard that intend to discharge on the other side of the zone must contact the COTP, her designated representative or her on-scene representative and obtain permission to transit and discharge prior to transit. Examples of discharges that may be approved by the COTP include plans to dispose of the water in a biologically sound manner or demonstrate through testing that the non-potable water does not contain potential live Silver or Asian carp, or viable eggs or, gametes from these carp.

(iv) In accordance with the general regulations in § 165.23 of this part, entry into, transiting, or anchoring within this safety zone by vessels with non-potable water on board is prohibited unless authorized by the Captain of the Port Lake Michigan, her designated representative, or her on-scene representative.

(v) The "on-scene representative" of the Captain of the Port is any Coast Guard commissioned, warrant or petty officer who has been designated by the Captain of the Port Lake Michigan to act on her behalf. The on-scene representative of the Captain of the Port Lake Michigan will be aboard a Coast Guard, Coast Guard Auxiliary, or other designated vessel or will be on shore and will communicate with vessels via VHF-FM radio or loudhailer. The Captain of the Port Lake Michigan or her on-scene representative may also be contacted via VHF-FM radio Channel 16 or through the Coast Guard Sector Lake Michigan Command Center at 414-747-7182.

(b) Regulated Navigation Area. (1) The following is a regulated navigation area (RNA): All waters of the Chicago Sanitary and Ship Canal, Romeoville, IL located between mile marker 295.0 (approximately 1.1 miles south of the Romeo Road Bridge) and mile marker 297.5 (approximately 1.3 miles northeast of the Romeo Road Bridge).

(2) Regulations.

(i) The general regulations contained in 33 CFR 165.13 apply.

(ii) Vessels that comply with the following restrictions are permitted to transit the RNA:

(A) All up-bound and down-bound barge tows that consist of barges carrying flammable liquid cargos (Grade A through C, flashpoint below 140 degrees Fahrenheit, or heated to within 15 degrees Fahrenheit of flash point) must engage the services of a bow boat at all times until the entire tow is clear of the RNA.

(B) Vessels engaged in commercial service, as defined in 46 U.S.C. 2101(5), may not pass (meet or overtake) in the RNA and must make a SECURITE call when approaching the RNA to announce intentions and work out passing arrangements.

(C) Commercial tows transiting the RNA must be made up with only wire rope to ensure electrical connectivity between all segments of the tow.

(D) All vessels are prohibited from loitering in the RNA.

(E) Vessels may enter the RNA for the sole purpose of transiting to the other side and must maintain headway throughout the transit. All vessels and persons are prohibited from dredging, laying cable, dragging, fishing, conducting salvage operations, or any other activity, which could disturb the bottom of the RNA.

(F) Except for law enforcement and emergency response personnel, all personnel on vessels transiting the RNA should remain inside the cabin, or as inboard as practicable. If personnel must be on open decks, they must wear a Coast Guard approved personal flotation device.

(G) Vessels may not moor or lay up on the right or left descending banks of the RNA.

(H) Towboats may not make or break tows if any portion of the towboat or tow is located in the RNA.

(I) Persons on board any vessel transiting this RNA in accordance with this rule or otherwise are advised they do so at their own risk.

(c) Definitions. The following definitions apply to this section:

Bow boat means a towing vessel capable of providing positive control of the bow of a tow containing one or more barges, while transiting the RNA. The bow boat must be capable of preventing a tow containing one or more barges from coming into contact with the shore and other moored vessels.

Designated representative means the Captain of the Port Lake Michigan and Commanding Officer, Marine Safety Unit Chicago.

Vessel means every description of watercraft or other artificial contrivance used, or capable or being used, as a means of transportation on water. This definition includes, but is not limited to, barges.

(d) Enforcement Period. The regulated navigation area and safety zone will be enforced from 5 p.m. on December 18, 2009, until 5 p.m. on December 1, 2010. This regulated navigation area and safety zone are enforceable with actual notice by Coast Guard personnel beginning December 18, 2009, until January 6, 2010.

(e) Compliance. All persons and vessels must comply with this section and any additional instructions or orders of the Ninth Coast Guard District Commander, or his designated representatives. Any person on board any vessel transiting this RNA in accordance with this rule or otherwise does so at their own risk.

(f) Waiver. For any vessel, the Ninth Coast Guard District Commander, or his designated representatives, may waive any of the requirements of this section, upon finding that operational conditions or other circumstances are such that application of this section is unnecessary or impractical for the purposes of vessel and mariner safety.

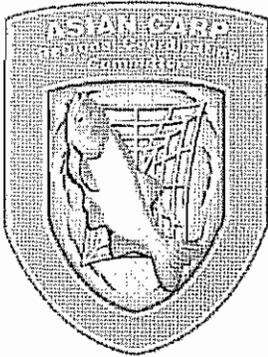
Dated: December 18, 2009.

Peter V. Neffenger

Rear Admiral, U.S. Coast Guard, Commander, Ninth Coast Guard District.

[FR Doc. E9-31350 Filed 1-5-10; 8:45 am]

**Site Feedback**



# Asian Carp Regional Coordinating Committee

FOR IMMEDIATE RELEASE  
May 5, 2010

Chris McCloud (217) 785-0075  
Ashley Spratt (612) 713-5314

City of Chicago

Illinois Department of  
Natural Resources

Metropolitan Water  
Reclamation District

U.S. Army Corps of  
Engineers

U.S. Coast Guard

U.S. Environmental  
Protection Agency

U.S. Fish and Wildlife  
Service

U.S. Geological Survey

Great Lakes Fishery  
Commission

Illinois Environmental  
Protection Agency

Indiana Department of  
Natural Resources

## Asian Carp Regional Coordinating Committee Announces Three-Month Monitoring and Sampling Plan

The Asian Carp Regional Coordinating Committee (RCC) is announcing its latest monitoring and sampling plan to guide Asian carp control efforts in the Chicago Area Waterway System (CAWS).

"This sampling plan will provide us with important data needed to make future decisions," said John Rogner, Assistant Director of the Illinois Department of Natural Resources. "Keeping Asian carp from establishing a population in Lake Michigan remains our ultimate goal and we think this new monitoring plan will help us achieve our objectives."

"These new monitoring efforts will help us make the most strategic decisions for keeping Asian carp from becoming established in the Great Lakes," said Charlie Wooley, Deputy Regional Director of the Fish and Wildlife Service (FWS). "The new monitoring plan will provide the quantitative information necessary to determine the most successful control methods for Asian carp, if they are present in the area."

To date, the Regional Coordinating Committee's efforts have focused on monitoring and sampling the CAWS to determine whether positive hits of Asian carp environmental DNA (eDNA) found in multiple locations upstream of the electric barrier indicate the presence of Asian carp. Traditional sampling techniques including gillnetting and electrofishing did not yield the capture of any Asian carp in areas surveyed during the initial six week sampling period.

Based on the eDNA tests, the new sampling and monitoring plan will take those traditional fishing methods to the North Shore Channel where a three

day sampling effort using electrofishing gear and commercial fishing nets will be used in an attempt to locate Asian carp. The operation will require the Illinois Department of Natural Resources to close a portion of the North Shore Channel starting on Tuesday, May 11 and will reopen the morning of Friday, May 14. The area targeted for sampling extends ¼ mile south of Oakton Street- approximately five miles north to the Wilmette Pumping Station. The North Shore Channel is almost exclusively used by paddlers because of its shallow depths and not navigable to most commercial and recreational boats.

The new plan also calls for a rotenone sampling operation upstream of the electric barriers near the O'Brien Lock and Dam to determine whether- and if so, how many- Asian carp might exist in that location where positive eDNA samples have been taken.

The planned application and subsequent fish recovery will begin with waterway closure on Thursday, May 20 and last five to six days. The application will take place on the Little Calumet River approximately one mile downstream of T.J. O'Brien Lock and Dam, east of the I-94 overpass, and will cover a stretch of two miles downstream of the starting location. The waterway will be treated in one day, and the recovery phase of the operation will last between four to five days. During that time, the FWS, IDNR, and other participating agencies will aim to recover as many fish in the application area as possible to determine the abundance and type of fish present in the treated area. The U.S. Army Corps of Engineers will support this effort by modifying operations at T.J. Obrien Lock and Dam as needed during the operation.

The toxicant will eradicate Asian carp and other fish in the canal, but does not present a risk to people or other wildlife when used properly.

During the application and recovery phases, the USCG will implement a safety zone to protect waterway users and workers conducting sampling operations in the vicinity of the O'Brien Lock. Access to the canal will be restricted for a period of five to seven days, meaning that boaters will not be able to transit the safety zone until sampling operations are completed and the safety zone is rescinded by the U.S. Coast Guard. Any safety zone notice for these sampling operations will be published in the federal register and will also be posted online at <http://www.uscg.fishbarrierinfo.com>.

The Monitoring Plan has several objectives with an overall goal of preventing Asian carp from establishing self-sustaining populations in the Great Lakes including:

- Determine the distribution and abundance of Asian carp in the CAWS, if they are present.
- Establish parameters of acceptable risk and determine our current risk level.
- Remove Asian carp in the CAWS to a level below what is considered an acceptable risk.
- Determine the leading edge of major Asian carp populations and reproduction.

Rotenone, a fish toxicant commonly used in fisheries management, was previously used on a six mile stretch of the Chicago Sanitary and Shipping Canal in December of 2009 while the U.S. Army Corps of Engineers shut down the Electric Barrier System for routine maintenance. That effort yielded one Bighead carp caught just above the Lockport Lock and Powerhouse approximately six miles downstream of the Electric barrier. No Asian carp have been found above the electric barrier to date.

Knowledge of the population size and location of possible Asian carp in CAWS is critical data that will inform biologists and decision makers on selecting and prioritizing appropriate actions to keep Asian carp from moving into Lake Michigan.

The U.S. Army Corps of Engineers continues to report eDNA results through the RCC's multi-agency <http://asiancarp.org> Web site.

The RCC includes representatives from the City of Chicago, Illinois Department of Natural Resources, Metropolitan Water Reclamation District, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Geological Survey, Great Lakes Fishery Commission, Illinois Environmental Protection Agency and Indiana Department of Natural Resources.

These partners are working to address the threat Asian carp pose to the Great Lakes through the development and implementation of the Asian Carp Control Strategy Framework. The Framework, which is guided by the latest scientific research, is expected to encompass more than two dozen short- and long-term actions and up to \$78.5 million in investments to combat the spread of Asian carp.

For up to date information about the efforts of the Asian Carp Regional Coordinating Committee please see an updated version of the Asian Carp Control Strategy Framework now available at [www.asiancarp.org](http://www.asiancarp.org).