

Waterways

A publication of the Upper Mississippi Waterway Association

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After years of trouble...

Corps to study Pool 2 problem

The 2011 shipping season on the Upper Mississippi is now history. The Corps of Engineers reports the MV Charlie G. passed through Lock and Dam 2 at Hastings, Minn., Thanksgiving Day, which made it the last vessel out of St. Paul. Lock and Dam 7 near LaCrosse, Wis., was closed for dewatering and repair on Dec. 5, and will be under repair until the middle of March 2012.

But even as the lock crews begin their winter maintenance and the miles of ice that form a seasonal barrier begin to form, UMWA members are focused on another barrier that has become a season-long problem every year. For the past decade, a sharp bend in the navigation channel has brought restrictions in the Boulanger/Freeborn area of Pool 2, effectively limiting the number of barges in a tow.

UMWA calls for action

For several years, UMWA has been pushing for corrective measures to straighten and deepen the section so that 15-barge tows can once again navigate to and from St. Paul.

Now the Army Corps of Engineers has announced that it has begun a study of the problem and the estimated \$5 million project that could reroute the navigation channel and improve the environmental health of Pool 2 by constructing one or more islands from dredged material.



(Above) During winter dewatering and maintenance, Corps workers see parts of a lock that haven't been exposed for years.

UMWA member and industry consultant Greg Genz tells Waterways the project has a lot of “win-win” aspects to it.

“Right now this bottleneck on the river is costing shippers and the barge industry real money,” Genz says. “For a time this spring traffic was limited to six-barge tows for over a month.”

Five alternatives

The Corps says the study will look at five possible alternatives - including doing nothing. The study will look at two possible new routes: One that

Debate to 4

From the Executive Director...

A New Corn Seed

Recently, we learned a new enzyme has been added to corn seeds. Intrigued we Googled 'genetically modified' (GM) corn and learned about a new seed that essentially allows the corn-ethanol industry to skip a costly production step, but at the same time is viewed suspiciously by the food industry.

In a February news release from Basel, Switzerland, Syngenta AG, a global agricultural research company announced that the U.S. Department of Agriculture had approved its GM modified corn seed which contains an added enzyme that speeds the breakdown of starches into ethanol.

This is a potential positive for the U.S. corn-ethanol industry in that it reduces Brazil's ethanol production advantage. Brazil uses sugarcane as the raw ingredient, whereas our ethanol is mostly corn based, requiring that the starch of the corn plant be first converted to sugar, a costly step with which Brazil is not saddled. Syngenta claims its GM modified seed will allow farmers to produce more ethanol from the corn, but use less energy and water.

A Kansas plot?

A posting on the UK's guardian weekly website in August, stated that the new corn seed is being grown commercially for the first time in a 5,000 acre Kansas plot and that Syngenta plans to expand its growing area to Nebraska, Iowa, South Dakota and south-west Minnesota.

According to Suzanne Goldenberg, the writer of the website article, Syngenta calls their corn seed Enogen, but others call it a disaster. "Even a small amount of [Syngenta's] corn, one kernel out of 10,000 could damage food products", turning corn chips into shapeless lumps and stripping the thickening properties from cornstarch. Also the North American Miller's Association, like most food industry groups, has opposed the corn, noting failures to prevent cross-contamination from earlier GM breeds.

We have queried the Kansas Corn Commission and other resources but have been unable to learn the fate of the Kansas test plot.

From Coal to Steam to Ethanol

This tale has nothing to do with GM corn and its impact on ethanol, but rather with ethanol's impact

on an efficient coal-fired generating plant.

As reported in the *Minneapolis StarTribune* last month, Great River Energy (GRE), Minnesota's second-largest electric company and wholesale cooperative, spent \$437 million on a recently completed coal-burning power plant at Spiritwood, 85 miles west of Fargo.

A model of efficiency, this plant burns North Dakota lignite that has been dried to remove some of the mercury and sulfur, has best-available pollution controls, draws city wastewater instead of fresh water, and at full power could supply 63,000 homes. While generating electricity, the plant can also produce steam for sale to nearby industries including a large malt plant and a proposed ethanol plant. At the time, according to news accounts, GRE's electric demand was growing and the co-op foresaw the need for more generation. The future couldn't be more promising for Spiritwood Station, the name of this state-of-the-art facility.

Project cancelled

Then things changed: higher prices for construction material caused the cost to jump some 26 percent, followed by the 2008 housing recession and financial crisis. Power demand by the co-op's customers fell, future power needs were cut and the price of power sold on the grid dropped. Then the ethanol plant project was cancelled, taking away a key steam customer and making the power plant less efficient to run. Nonetheless, the co-op opted to keep building Spiritwood Station, rather than incur a \$190 million loss, according to this news account.

Unfortunately, according to a BismarkTribune.com posting of December 8, lack of demand for electricity and loss of a major customer for the plant's steam resulted in a decision to not fire up the plant until at least 2013.

To stem its losses, GRE determined that a second steam customer was still needed, and decided to build one itself – a new corn and biomass ethanol plant. According to the GRE website Phase I will be a 60 million gallon per year ethanol biorefinery. Phase II will be a bolt-on facility to produce 8 to 12 million gallons per year of cellulosic ethanol based on technology developed in Denmark. Various news sources indicate that GRE's goal is to have the new corn-based ethanol plant in full operation by the end

Executive Dir. to 3

Executive Dir. from 2

of 2013.

What a frustrating turn of events this must have been: an efficient coal-burning electric generator is forced to mothball a new plant because of unanticipated lack of demand and needs an additional steam customer to even out demand with supply and decides to create one by constructing a corn-ethanol plant to use its steam to produce a more environmentally friendly motor vehicle fuel. Now that's good old American ingenuity.

Words of Support

And finally, words of support from National Corn Growers Association as published in their December 2 Corn Action News: As campaigns for the 2012 elections heat up, the National Corn Growers Association joined a well-timed effort to let candidates know that farmers and their allies are paying attention to their positions on funding for essential lock and dam improvements along the Mississippi River. To determine how to best structure a strategic educational campaign on the issue, NCGA President Garry Niemeyer, NCGA staff and key industry stakeholders met in Quincy, Ill. for a discussion covering the importance of the actual improvements and the best way in which to move forward as a unified front.

The country's inland navigation system moves more than a billion tons of domestic commerce valued at more than \$300 billion per year. More than one billion bushels of grain, about 60 percent of all grain exports, move to export markets via the inland waterways each year.

Through it all NCGA remains focused on obtaining construction dollars through the annual appropriations process.

Final Thoughts

While funds for the construction of essential lock and dam improvements on the Mississippi River system are critical to the economic and environmental health of the nation, so too is an understanding that river-dependent industries and shippers must continue to have access to river-side facilities. Analogous to a world-class freeway system made unused by the closure of all on- and off ramps, a world-class waterway system is equally useless without docks and terminals to facilitate the loading and unloading of barge freight. If allowed, such strangle points will

severely and irreparably damage the economic and environmental fiber of our nation.

Other river related items:

- After 86 years, Ford Motor Company is closing its St. Paul Assembly plant this month. The 160 acres along the Mississippi River will be cleared of plant buildings and Ford says it hopes to sell the site after environmental remediation. There has been talk of an undetermined mix of residential, commercial and office use of the acres.
- A paddlewheel steamboat, The American Queen will return to the Mississippi River and St. Paul next year. At 418 feet, she is the largest paddle wheeler ever to travel on the river. More info is available at www.greatamericansteamboatcompany.com.
- The Lower St. Anthony Falls Hydroelectric Project will soon begin producing its first megawatts. Located in an auxiliary lock chamber, the 16 turbines will be the first operating on the river and are expected to generate about 10-megawatts. More turbines are planned downriver at other locations including Locks 3, 4, 6, 7 and 9.
- The Mississippi Valley Division of the U.S. Army Corps of Engineers has a new Commander: Maj. Gen. John W. Peabody took command in Vicksburg, Miss., last month. Also the Corps has announced that St. Paul District employee Steve Adamski is the recipient of the 2011 George Wolfe Koonce Award, which recognizes the Corps' outstanding attorney of the year.

Debate from 1

would run close to the shoreline of Nininger Township, east of Grey Cloud Island and a “Nininger Channel” that would be longer and further downstream. Two other alternatives would modify the existing channel.

Channel Maintenance Coordinator Paul Machajewski says the earliest the St. Paul District could begin moving the estimated 1 million cubic yards of material would be the summer of 2013. The District says it expects to pick a preferred route by next summer.

Genz and other UMWA members say the needed improvements can’t come soon enough and everyone involved agrees that the problem is an increased amount of sediment coming downriver and settling in the tight turn. Corps hydrologists say that over the past decade sediment runoff from the Minnesota River has increased about 40%.

In addition to UMWA members pushing for the much needed project, an advocacy group called “Friends of Pool 2” has been formed and includes representatives from cities and members of the public who have an interest.

Downstream roundtable

There is also a growing feeling downstream that it’s time to act to upgrade or at least maintain the present infrastructure on the Upper Mississippi.

A recent business roundtable held in conjunction with the 9th Tri-State Development Summit in Quincy, Ill, at the end of November brought together representatives of private industry, agriculture and waterway and transportation groups. Mike Steenhoek, executive director of the Soy Transportation Council said after the meeting that maintaining the current system is vital for the area economy.

“Step one is to make sure that the money we do have appropriated, the millions of dollars paid into the Inland Waterways Trust Fund are efficiently used. Right now there are a lot of cost overruns for various projects, so there’s plenty of evidence that the government is not a good steward of the money that’s currently available to it – so that’s step one.”

Illinois Farmer Phil Bradshaw says the public needs more information about how important the river system is to everyone.

“We need to educate people on the fact that



Above: Farms along the river and many more that are miles from the navigable channel benefit from the competitive rates made possible by efficient, environmentally friendly river transportation.

this is very important. Everybody’s lives along 150 miles in both ways of the river, their lives are affected some way or another by the movement of freight or cargo on the rivers.

Money hasn’t shown

Paul Rhode, now with Waterways Council, Inc., says the Congress authorized the upgrade of seven lock and dam sites, including five on the Mississippi from Locks 20 to 25, but he says the money hasn’t shown up to get those projects underway.

“Nationally, we have an 8 billion dollar backlog in projects. That includes new construction and rehabilitation of existing locks and dams. On the Mississippi, most of them are 70 to 80 years old and many haven’t had a lot of capital improvements. We’ve expected the infrastructure to operate and keep working normally without putting the funds in to keep that operation going,” Rhode says.