

Brawn of 16 Men Ensures \$17 Billion in U.S. Waterways Shipments
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By Carol Wolf

March 17 (Bloomberg) -- Four times this year, as many as 16 men working at Lock 52 on the Ohio River near Brookport, Illinois, have climbed onto a floating platform to hook 487 wooden barriers on the river floor to a steam-powered crane.

It takes as long as 30 hours to pull up the wickets, one by one, to form a dam that adjusts water levels to keep the river navigable, a process that's automated elsewhere. Deterioration of the 82-year-old lock, the busiest by shipping tonnage in the U.S. inland-waterways system, risks a breakdown that could snarl \$17 billion a year in shipments of coal, grain and steel. A project to replace Lock 52 and its downstream twin is 18 years behind schedule.

American Electric Power Co., the largest U.S. electricity generator, is so reliant on coal barges navigating Lock 52 that its failure may lead to power outages for some of its 5.3 million customers, said Mark Knoy, president of AEP River Operations.

"I want to be careful not to cause too much concern but that's the reality of the situation," he said. "Lock 52 is critically important, but any lock failure on inland waterways would have a direct impact on the economy, not just at our power plants but for oil refiners, steel companies and others."

Although President Barack Obama proposes spending about 88 percent of his inland waterways budget next year on a project to replace Lock 52 and Lock 53 downstream, work won't be completed until 2018.

Billions Needed

About 12,000 miles of rivers weave through the U.S. heartland, carrying almost \$70 billion in goods annually, according to Waterways Council Inc., an industry group. Lock 52 handles \$17 billion in annual shipments, according to the council.

About 20,500 barges operate on the Mississippi River and connecting waterways including the Ohio, Missouri, Arkansas, Tennessee and Cumberland rivers, according to a 2010 report by Informa Economics Inc., a Memphis, Tennessee-based research firm.

About \$7 billion will be needed over 20 years to keep inland waterways navigable, said Rick Calhoun, president of Cargill Marine and Terminal Inc. Minneapolis-based Cargill Inc., which depends on inland waterways to transport grain, is the largest closely held company in the U.S.

Delays caused by lock breakdowns “add to the cost of shipping whether it’s the end product to the consumer or by making products less competitive on the world market,” Calhoun said in a telephone interview.

Advocating Tax Increase

U.S. inland waterways projects are financed by a 20-cent-a gallon fuel tax on barge and tow operators. The tax provides about \$85 million a year and is matched by federal funds.

Companies and industry groups are asking Congress for a 35 percent increase in the tax, Calhoun said. “The only people who pay the fuel tax are the tow boat industry, and we’re asking for an increase,” he said.

Congress will consider the industry’s request if the money is dedicated to inland waterways, said Representative Bob Gibbs, an Ohio Republican, who chairs the House Water Resources and Environment subcommittee.

“This is more like a user fee rather than a tax,” Gibbs said in a telephone interview. “If this is something the industry wants, we’ll be willing to look at it.”

Congress allocated \$775 million in 1988 to replace Locks 52 and 53, and construction was expected to be completed in 2000, said Cornel Martin, chief executive officer of the Waterways Council, based in Arlington, Virginia. The estimated cost of replacing Locks 52 and 53 has climbed to \$2.1 billion because of the delays, he said.

Funds Diverted

Money has been diverted over the years to emergency repairs on other locks or other projects requested by members of Congress, said Calhoun, who is chairman of the council's board.

"It's devastating to see what's happening to the inland waterways because of lack of funding," Mike Morris, chief executive officer of Columbus, Ohio-based AEP, said in an interview.

In 2004, \$20.6 million of Lock 52's funding was redirected to repair the McAlpine Lock in Louisville, Kentucky, after a gate failed, resulting in a 10-day shutdown, according to a report by the Corps of Engineers. Money to repair the McAlpine Lock was authorized in 1991 but shifted to other projects, the report said.

"We're seeing that going on across the system," Martin said. If Locks 52 and 53 were fixed, "it would save shippers hundreds of millions of dollars," he said.

1,050 Trucks

Obama's fiscal 2012 budget dedicated \$170 million to the Inland Waterways Trust Fund. Of that about \$150 million of the amount would go to the Olmsted Dam and Lock project, which will replace Locks 52 and 53.

"We're on track with funding this year to make the progress we need, but it's hard to predict if the funding stream will continue or not," said Carol Labashosky, a Corps of Engineers spokeswoman.

AEP, which in 2012 will move 36 million tons of coal along the Ohio River to 25 power plants, is bracing for a complete breakdown of Lock 52 by 2015 because of its age and lack of maintenance, Knoy said. That may cause power outages as coal supplies dwindle, Knoy said.

If the lock fails, 1,050 tractor trailer trucks per day would be needed to replace the barge loads, he said.

Lock 52 was down for 32 days in September and October 2010, resulting in as much as

206 hours of traffic delays for AEP, Knoy said. That added \$1.70 per ton in costs on 972,000 tons of coal, increasing AEP's shipping costs by \$4.6 million, he said.

1929 Technology

Nucor Corp., the biggest U.S. steel producer by market value, ships about 4 million tons of raw material, including pig iron, and finished products, like tubing and piping, on the inland waterways, said John Guin, materials manager for the Charlotte, North Carolina-based company.

"A lot of our mills are located by the river and that's not by accident," Guin said in an interview. "With the congestion on the highways and railroads and the weight of our materials, the inland waterways are critical to our business."

The wickets that make up the dam at Lock 52 lay across the floor of the Ohio River attached to hinges.

When the wickets must be hoisted, two of the 16 men lean over the floating platform's edge to attach what Labashosky called "oversize crochet hooks" to holes at the top of the wicket. The men hook the wickets one by one to the crane, which pulls them into place to form the dam.

The work is done much the same way as it was in 1929, when the lock opened, said Randy Robertson, Lock 52 lock master, in an interview.

"It's dangerous, backbreaking work, but it was the technology of the time and we're still dealing with that technology," Martin said.

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