Lock & Dam 9

(Lynxville, Wisconsin)
Mississippi River

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Construction: 1936-1940
General Contractors:
Lock: Walter W. Magee Company, St. Paul, Minn.
Dam: United Construction Company, Winona, Minn.

Congressional District: IA-1; WI-3

Description

Lock and Dam 9 is located at Mississippi River Mile 647.9 near Lynxville, Wisconsin, 205.1 miles below Minneapolis.

The main lock is located along the left descending bank and consists of a single lock chamber 110 feet wide by 600 feet long with an upper pool elevation of 620.0 feet, a tailwater elevation of 611.0 feet, and a vertical lift of 9.0 feet. There are miter gates at each end of the lock chamber. There is a partial auxiliary lock consisting of an upstream set of miter gates and short concrete riverwall section.

The movable dam consists of concrete structure 811 feet long with five roller gates (20-feet high by 80-feet long), six non-submersible Tainter gates (15 feet high by 35 feet long), and two submersible Tainter gates (15 feet high by 35 feet long), and is located adjacent to the auxiliary lock. Completing the dam system is an earthen embankment approximately 7,200 feet long, located between the movable dam and high ground on the Iowa side of the river, with a submersible sheetpile cell spillway 1,350 feet long.

The site has a public observation platform and restrooms open from dawn to dusk from April to November.

History/Significance

The Lock was put in operation in July 1937.

Due to a good 6-foot channel and relatively trouble-free engineering and environmental characteristics, Lock and Dam 9 was a group "B" priority, and the second-to-last complex built by the St. Paul District. The complex was completed at an estimated federal cost of $8,287,000.

Annual Tonnage (20-Year Historical)

Year	Tons	Year	Tons	Year	Tons	Year	Tons
2016	15,995,343	2011	11,526,240	2006	13,923,104	2001	14,570,356
2015	12,541,853	2010	12,107,482	2005	13,395,636	2000	17,742,027
2014	11,125,301	2009	12,009,688	2004	13,256,894	1999	18,820,219
2013	10,046,747	2008	10,368,822	2003	14,995,775	1998	17,053,268
2012	11,753,980	2007	13,354,186	2002	17,352,121	1997	15,983,470

U.S. ARMY CORPS OF ENGINEERS – ST. PAUL DISTRICT
180 5TH STREET EAST, SUITE 700, ST. PAUL, MN 55101-1678
Public Affairs Office, (651) 290-5200, www.mvp.usace.army.mil

Commodity Tonnage (2016)

All Units (Ferried Autos, Passengers, Railway Cars)	-
Coal, Lignite, and Coal Coke	1,472,600
Petroleum and Petroleum Products	200,200
Chemicals and Related Products	2,524,124
Crude Materials, Inedible, Except Fuels	1,650,700
Primary Manufactured Goods	1,182,232
Food and Farm Products	8,925,500
Manufactured Equipment & Machinery	36,762
Waste Material	
Unknown or Not Elsewhere Classified	3,225

Vessel & Lockage Data (2016)

Average Delay - Tows (Hours)	1.16
Average Processing Time (Hours)	0.49
Barges Empty	3,709
Barges Loaded	10,275
Commercial Vessels	1,608
Commercial Flotillas	1,595
Commercial Lockages/Cuts	2,428
Non-Vessel Lockages	-
Non-Commercial Vessels	26
Non-Commercial Flotillas	25
Non-Commercial Lockages/Cuts	25
Percent Vessels Delayed (%)	38
Recreational Vessels	3,271
Recreational Lockages	1,379
Total Vessels	4,905
Total Lockages/Cuts	3,832

The 9-foot Channel Navigation Project

The 9-foot Channel Navigation Project includes 37 lock and dam sites (42 locks) on 1,200 river miles in Illinois, Iowa, Minnesota, Missouri and Wisconsin. Constructed largely in the 1930s, it extends from Minneapolis-St. Paul on the Upper Mississippi River to its confluence with the Ohio River and up the Illinois Waterway to the T.J. O'Brien Lock in Chicago.

The maintenance needs of this aging infrastructure have surpassed annual operations and maintenance funding. This limited funding has adversely affected reliability of the system and has primarily resulted in a fix-as-fail strategy, with repairs sometimes requiring days, weeks or months. Depending on the nature of a failure and extent of repairs, shippers, manufacturers, consumers and commodity investors can experience major financial consequences. Additionally, today's 1,200'-long tows must split and lock through in two operations within the Project's 600' chambers. This procedure doubles and triples lockage times, increases costs and wear to lock machinery, and exposes deckhands to higher accident rates.

More than 580 facilities ship and receive commodities within the Project. Grains (corn and soybeans) dominate traffic; cement and concrete products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). In 2015, the 9-foot channel project generated an estimated $3 billion of transportation cost savings compared to its approximately $246 million operation and maintenance cost.

UPDATE: April 2017