Starved Rock Lock & Dam

(Ottawa, Illinois)
Illinois River

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

Construction: 1926-1933
General Contractors:
Woods Brothers Construction Company, Lincoln, Neb., and Independent Bridge Company, Pittsburgh, Pa.

Congressional District: IL-11

Description

Starved Rock Lock and Dam is 231.0 miles above the confluence of the Illinois River with the Mississippi river at Grafton, Illinois. The lock and dam is located about 1.5 miles southeast of Utica, Ill.

The dam is a gated, concrete, gravity dam, 1,280 feet long. A 680-foot-long Tainter gate section contains 10 Tainter gates. The headgate section contains 30 headgates that were plugged with concrete in 1982. The 52-foot-long ice chute section of the dam includes a 52-foot-long inoperable Tainter gate. The lock is the standard 600 feet long by 110 feet wide. The maximum lift is 18.5 feet with an average lift of 17 feet. It takes approximately 12 minutes to fill the lock chamber; nine minutes to empty.

It takes two hours for water to travel from Marseilles Lock and Dam to Starved Rock during flood or high flow conditions.

History/Significance

The lock opened in 1933. Starved Rock Lock and Dam was one of five designed and partially constructed by the state of Illinois over a period from 1926 to 1930. The original contractor, selected in 1923, failed to appear for the signing of the contract documents. Land litigation issues were resolved in 1925 and a second contract was awarded in 1926. Starved Rock Lock and Dam was about 95 percent complete when construction was turned over to the federal government due to state financial difficulties.

The government, by the authority of the Rivers and Harbors Act of 1930, completed construction of the lock in 1933. The lock and dam elements of the complex were completed at a total cost of $4,462,737, of which $3,577,419 were state funds and $885,318 were federal funds.

Annual Tonnage (20-Year Historical)

Year	Tons	Year	Tons	Year	Tons	Year	Tons
2015	18,240,128	2010	15,979,781	2005	22,070,208	2000	22,377,788
2014	19,841,890	2009	16,146,846	2004	23,788,248	1999	21,384,458
2013	15,365,536	2008	17,038,590	2003	21,832,685	1998	22,397,917
2012	16,907,149	2007	19,052,616	2002	22,407,918	1997	20,800,129
2011	16,412,979	2006	23,187,461	2001	23,200,035	1996	21,828,118

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CLOCK TOWER BUILDING, P.O. BOX 2004, ROCK ISLAND, IL 61204-2004
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Commodity Tonnage (2015)

All Units (Ferried Autos, Passengers, Railway Cars)	-
Coal, Lignite, and Coal Coke	956,611
Petroleum and Petroleum Products	3,973,085
Chemicals and Related Products	3,429,796
Crude Materials, Inedible, Except Fuels	4,399,331
Primary Manufactured Goods	2,749,095
Food and Farm Products	2,611,205
Manufactured Equipment & Machinery	97,455
Waste Material	2,650
Unknown or Not Elsewhere Classified	20,900

Vessel & Lockage Data (2015)

Average Delay - Tows (Hours)	3.33
Average Processing Time (Hours)	0.95
Barges Empty	4,712
Barges Loaded	10,597
Commercial Vessels	3,096
Commercial Flotillas	3,027
Commercial Lockages/Cuts	3,590
Non-Vessel Lockages	-
Non-Commercial Vessels	43
Non-Commercial Flotillas	39
Non-Commercial Lockages/Cuts	39
Percent Vessels Delayed (%)	82
Recreational Vessels	656
Recreational Lockages	195
Total Vessels	3,795
Total Lockages/Cuts	3,824

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). Annually, the 9-foot project generates an estimated $1 billion of transportation cost savings compared to its approximately $115 million operation and maintenance cost.

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