Peoria Lock & Dam

(Creve Coeur, Illinois)
Illinois River

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

Construction: 1936-1939

Congressional District: IL-18

Description

Peoria Lock and Dam is 157.7 miles above the confluence of the Illinois River with the Mississippi river at Grafton, Illinois. The lock and dam is located four miles downstream of Peoria, Ill.

The lock is the standard 600-feet long by 110-feet wide. The maximum lift is 11 feet with an average lift of six feet. It takes ten minutes to fill or empty the lock chamber. The dam is a Chanoine wicket dam, the navigable pass type. Overall length of the dam is 570 feet. The movable dam is 432-feet long containing 108 wickets (3.75-feet wide, 16.42-feet high, 0.25-foot gap between wickets). The dam includes a single 84-foot-long submersible Tainter gate.

From 1987-1990, a major rehabilitation changed the physical components of the dam and operating procedures by replacing 26 of the original 134 wickets with a single 84-foot long submersible Tainter gate adjacent to the lock wall.

It takes two days for water to travel from Starved Rock Lock and Dam to Peoria.

History/Significance

The lock opened in 1939. Following the Supreme Court's decree of April 21, 1930, limiting the diversion of water from Lake Michigan, a new navigation plan was developed calling for removing four old locks and dams at Henry, Copperas Creek, LaGrange and Kampsville; new locks at Peoria and LaGrange, and a dam on the Mississippi River at Alton, Missouri, to provide the required navigation depth from the mouth of the Illinois to LaGrange. The lock is used only during low and moderate river flows when the wicket dams are raised to maintain the nine-foot navigation depth. During high flows, the wickets are lowered and open river conditions prevail.

Peoria is one of only two wicket dams on the Illinois Waterway. The lock and dam elements of the complex were completed at a cost of $3,381,030.

Annual Tonnage (20-Year Historical)

Year	Tons	Year	Tons	Year	Tons	Year	Tons
2015	23,401,185	2010	22,752,072	2005	29,734,319	2000	31,730,582
2014	25,833,577	2009	22,512,568	2004	32,304,149	1999	31,128,998
2013	19,011,535	2008	23,483,059	2003	31,878,067	1998	32,225,608
2012	21,658,148	2007	26,391,793	2002	32,080,328	1997	30,775,497
2011	22,773,070	2006	30,514,817	2001	33,668,096	1996	32,285,882

Commodity Tonnage (2015)

All Units (Ferried Autos, Passengers, Railway Cars)	-
Coal, Lignite, and Coal Coke	1,990,700
Petroleum and Petroleum Products	3,605,640
Chemicals and Related Products	5,057,882
Crude Materials, Inedible, Except Fuels	2,951,768
Primary Manufactured Goods	2,668,631
Food and Farm Products	7,056,664
Manufactured Equipment & Machinery	44,850
Waste Material	1,450
Unknown or Not Elsewhere Classified	23,600

Vessel & Lockage Data (2015)

Average Delay - Tows (Hours)	1.14
Average Processing Time (Hours)	0.69
Barges Empty	6,641
Barges Loaded	13,694
Commercial Vessels	2,996
Commercial Flotillas	2,992
Commercial Lockages/Cuts	3,530
Non-Vessel Lockages	1
Non-Commercial Vessels	6
Non-Commercial Flotillas	6
Non-Commercial Lockages/Cuts	6
Percent Vessels Delayed (%)	42
Recreational Vessels	24
Recreational Lockages	4
Total Vessels	3,026
Total Lockages/Cuts	3,541

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.

UPDATE: May 2016