

Petroleum

The Ohio River basin's third largest commodity group is crude petroleum and products made from petroleum. The Ohio River System is a vital conduit for petroleum products in this area. Many basin cities are not connected to the nation petroleum product pipeline network and therefore depend on barges as a low cost means for delivery of liquid fuels. Barges typically serve areas such as most of West Virginia and also supplement petroleum fuel pipeline delivery to areas such as Paducah, Louisville, Cincinnati, Nashville and Pittsburgh. Due to their physical properties, asphalt and residual fuel oil cannot move by pipeline. For these products, barges are the most cost-effective means of delivery.

There were over 250 waterside refineries, tank farms, pipelines, factories and terminals in the basin, which shipped or received petroleum or petroleum products by barge in 2008. Marathon Ashland Petroleum, consisting of the recently merged operations of Marathon and Ashland Oil, is the dominant player in the basin petroleum products market. The company's refinery in Catlettsburg, Kentucky is among the largest in the nation, and the company ships petroleum products from there and from a terminal across the Big Sandy River in Kenova WV, which is linked to the refinery by a pipeline. The company also supplies the basin via barges from a refinery in Louisiana.



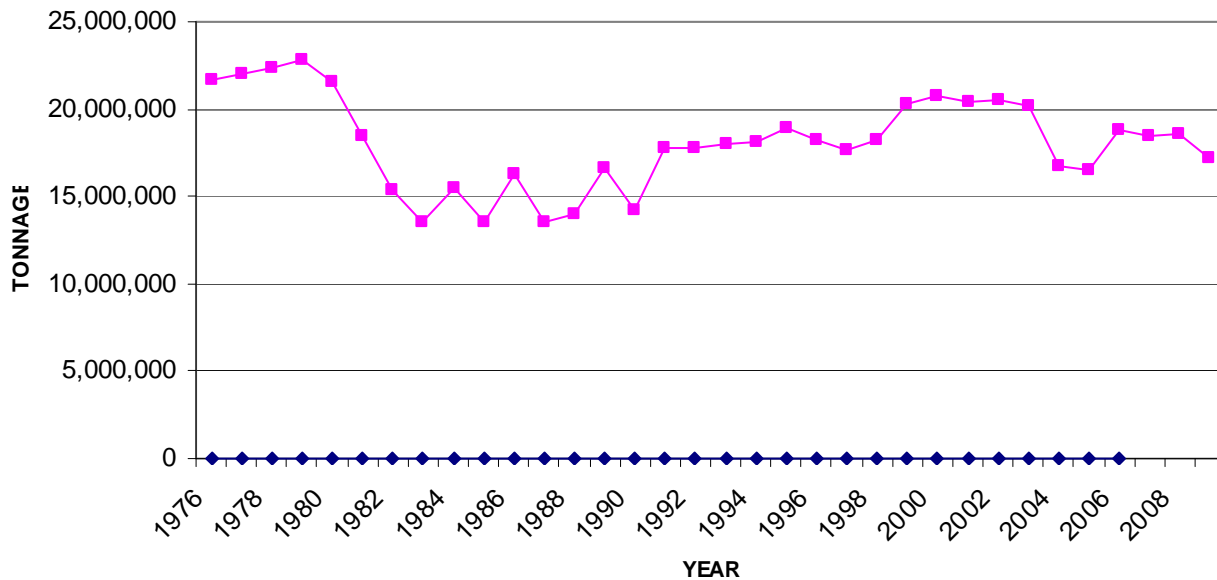
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HISTORIC OHIO RIVER BASIN PETROLEUM TRAFFIC 1975 - 2008



Petroleum and petroleum product shipments on the Ohio River basin’s waterways totaled just over 17.2 million tons in 2008, or 6.4% of all basin barge cargo. Of this amount, almost 4.0 million tons were shipped into the basin from outside. Over 1.2 million tons were shipped out of the basin, and over 12.0 million tons moved within the Ohio River System. The petroleum and petroleum products that moved by barge in 2008 had a combined value of about \$2.6 billion, which was almost 8.6 per cent of the value of the basin’s commodities moving by water.

The largest petroleum product that moves by barge in the basin is distillate fuel oil (also called light fuel oil) gasoline. Most of the 5.8 million tons of gasoline, which moved in 2008 moved from the Huntington area to the Louisville, Cincinnati and Pittsburgh areas or from the lower Mississippi River into the basin. Gasoline the second ranking waterborne petroleum product, with 4.6 million tons (1.6 billion gallons).

Ohio River Basin Barge Traffic – 2008 (values in millions of \$)		
Petroleum Commodity	Tonnage	Value
DISTILLATE FUEL OIL	5,892,129	\$778
GASOLINE	4,658,302	\$722
ASPHALT TAR & PITCH	2,159,509	\$730
PETROLEUM COKE	2,013,276	\$74
RESIDUAL FUEL OIL	919,907	\$82
LUBE OIL & GREASES	671,127	\$117
CRUDE PETROLEUM	584,114	\$58
NAPHTHA & SOLVENTS	170,331	\$23
PETRO. JELLY & WAXES	74,981	\$85
LIQUID NATURAL GAS	74,184	\$10
KEROSENE	9,388	\$1
PETRO. PRODUCTS NEC	1,283	\$0
TOTAL	17,228,531	\$2,679
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>		

Over 38 per cent of the petroleum that moved by barge in the Ohio River basin originated in West Virginia. Gasoline and distillate and residual fuel oils made up most of this tonnage. Louisiana docks shipped gasoline oils and petroleum coke into the basin.

Ohio River Basin Barge Traffic Petroleum & Products Shipped by State – 2008 (values in millions of \$)			
State	Tonnage	Value	Leading Petroleum Product
West Virginia	6,554,182	\$918	Gasoline
Louisiana	3,109,777	\$315	Distillate Fuel Oil
Kentucky	2,038,007	\$494	Asphalt Tar & Pitch
Illinois	1,113,952	\$268	Asphalt Tar & Pitch
Ohio	1,101,197	\$159	Crude Petroleum
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>			

The main destinations for petroleum barges originating in the basin were facilities in Kentucky on the Ohio, Tennessee, Green and Licking Rivers. A majority of the movements to Ohio were destined for facilities in the Cincinnati and Marietta areas and consisted of gasoline, petroleum coke and distillate fuel oil as well as asphalt, tar and pitch.

Ohio River Basin Barge Traffic Petroleum & Products Received by State – 2008 (values in millions of \$)			
State	Tonnage	Value	Leading Petroleum Product
Kentucky	8,421,390	\$1,124	Distillate Fuel Oil
West Virginia	2,272,221	\$312	Gasoline
Ohio	1,922,927	\$363	Gasoline
Indiana	1,170,122	\$170	Gasoline
Tennessee	938,933	\$243	Asphalt Tar & Pitch
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>			

