

The Western Coal Boom

The late 1960s and early 1970s were a time of ferment in American society. Young people had taken to the street in 1967 and 1968 to protest the increasingly unpopular war in Vietnam, toppling the political career of President Lyndon Johnson in the process. Americans were also questioning the environmental policies of the nation's businesses. In April 1970, millions of Americans rallied in city streets, on college campuses and small town courthouse squares to demand that Congress pay attention to environmental issues. That first Earth Day led inexorably to a slew of early 1970s environmental legislation that would change forever the way Americans would view their natural surroundings.¹ The passage of the Clean Air Act in 1970 mandated that America's coal-fired electric utilities and manufacturing plants clean up air pollutants, such as sulfur dioxide and nitrogen oxide.



The Midwest Energy Resources Company's Superior terminal, a showpiece of Great Lakes port development, continues to set port coal-handling records. (Duluth Shipping News Photo)

The requirement that coal would have to become cleaner to meet federal air pollution standards spurred the opening of massive new deposits of low-sulfur coal in eastern Montana and Wyoming in the late 1960s. Two Minnesota electric utilities, Minnesota Power & Light and Northern States Power pioneered the concept of moving coal from eastern Montana to generating plants in the Gopher State by 105-car unit trains.²

The success of the Minnesota utilities in converting to Powder River low-sulfur coal convinced other Midwest electric utilities of the feasibility of the process. As early as the late 1960s, Detroit Edison began investigating the possibility of using the existing Burlington Northern rail network to haul Montana and Wyoming coal to the Head of the Lakes. From there, the coal could be loaded into bulk freighters for transport down to Detroit Edison coal-fired power plants on the St. Clair River north of the Motor City.

In 1972, Detroit Edison, Burlington Northern, Orba Corporation of New Jersey

and C. Reiss Coal Company announced an ambitious project to build a coal terminal on the Superior waterfront. Located on the site of several abandoned coal docks, the new facility would have an original total capacity of 12 million tons of low-sulfur coal a year. As part of the agreement, Burlington Northern would haul the coal to Superior. Orba and C. Reiss would operate the \$45 million facility, and Detroit Edison would consume the coal at its Michigan power plants.

The Detroit utility negotiated a 25-year contract with the Boland & Cornelius Steamship Company of Buffalo, New York to haul the coal from Superior to Detroit Edison's St. Clair, Michigan power plant. Boland & Cornelius in turn let contracts with the Bay Shipbuilding Corporation at Sturgeon Bay, Wisconsin for construction of the 770-foot *St. Clair* and the 1,000 foot *Belle River* in 1976 and 1977, respectively, to carry the coal. ³

Construction on the new Ortran facility began in the spring of 1974. Crews built a circular loop track capable of handling two 123-car unit trains simultaneously. They also constructed an enclosed conveyor belt system that would elevate the coal from ground storage to the loading equipment high above St. Louis Bay.⁴ Crews were on site building the new Ortran facility from 1973 to 1975, and the first boatload of Western coal went down the Great Lakes in the spring of 1976.

Reaction in the Twin Ports to the new terminal was mixed. Some in the community predicted that Ortran would be handling as much as 20 million tons of coal per year by the mid-1980's. Others dismissed it as the outward manifestation of passing energy fad, anticipating that the downbound coal trade would never amount to much.

In the beginning, it seemed that the naysayers might be right. Coal movements through the terminal quickly reached the 4 million-ton per year level, about one-third the facility's designed capacity. But shipments stayed in the 4 million-ton range through the early 1980's.⁵ As Detroit Edison converted more of its power plants to burn low sulfur coal, however, annual shipments began to rise through the end of the 1980's. In 1986, management of the facility was transferred from Ortran to Midwest Energy Resources Company (MERC), a wholly-owned subsidiary of Detroit Edison. By 1989, MERC was handling more than 11 million tons per year of low sulfur coal, an average that it maintained through the mid-1990's.⁶

In 1994, MERC broke a 71-year record when it shipped slightly more than 13 million tons of coal to Detroit Edison power plants and third-party customers. The record for coal movement through the Twin Ports had been 12.7 million tons in 1923, when all of the coal was upbound.⁷ By 1997, MERC was serving additional U.S. and Canadian utilities throughout the Great Lakes and was handling nearly 15 million tons of coal, breaking records for coal shipments through the Twin Ports every year it operated.⁸

The MERC facility was gaining an international reputation for its incredible

productivity and efficiency. At any given moment on any day of the year, some 25 Burlington Northern Santa Fe and Union Pacific unit trains of 123 cars each snake their way across the 1,100 miles of prairie between the Powder River Basin mines and MERC's 3.5 million-ton storage yards. The loaded trains, each carrying about 14,500 net tons, are discharged in Superior in about 3.5 hours by the world's fastest single-car, rotary unloader. Once empty, the long trains immediately head back out west while, alongside the dock, U.S. and Canadian lakers are loaded at an average 9,000 tons per hour.⁹

Increasingly, the coal is blended at the MERC facility to meet utility customers' specific boiler requirements. The coal pile at the Superior facility is in actuality eight separate piles. "We know the quality characteristics of each train load that comes in," MERC President Fred Shusterich told a reporter early in 2003, "and we then deposit the separate train loads into their appropriate piles."¹⁰

In 2000, MERC broke another record that had stood for 68 years. For the first time since 1932, Duluth-Superior handled more coal in a navigation season than iron ore. The 15 million tons of coal handled by the MERC facility during the 2000 navigation season was 300,000 tons more than the 14.7 million tons of taconite that moved through the Twin Ports.¹¹ The 2000 season was the seventh consecutive year that MERC had broken the Twin Ports' record for coal shipments. Low sulfur coal from the Powder River Basin accounted for nearly 40 percent of all the coal shipped on the Great Lakes.¹²

In 2004, 19 million tons of low sulfur coal were scheduled to be moved through MERC. The growth of the Western coal trade on the Great Lakes was just another example of a bulk commodity from the Heartland of North America finding its way to end-use consumers by the superb water highway of the Great Lakes.

¹ Beck, *The Energy To Make Things Better*, p.159. Ironically, the creation of the U.S. Environmental Protection Agency and the passage of landmark air and water pollution control legislation came on the watch of President Richard M. Nixon, who incurred the enmity of a generation of American youth for his handling of the Vietnam War.

² Beck, *Northern Lights*, pp.356-358. The then Minnesota Power & Light Company signed an agreement with Peabody Coal Company and the Burlington Northern Railroad in August 1968 that called for BN to haul low-sulfur coal from eastern Montana to the new Clay Boswell Steam Electric Plant MP&L was building near Cohasset, Minnesota.

³ "The Resurgence of Black Gold," *Minnesota's World Port*, Fall 1973, pp.4-5

⁴ *Ibid.*, p.5

⁵ Duluth-Superior Harbor Statistics, pp.6-7. It should be noted that virtually all of the coal moved through the Twin Ports in 1983 was from the Ortran facility.

⁶ *Ibid.*, p.7. By that time, the facility had been renamed the Superior Midwest Energy Terminal (SMET) to reflect Detroit Edison's growing ownership of the complex.

⁷ Beck, "Redefining the movement of coal," *Seaway Review*, July-September 1994, p.9

⁸ Beck, "It's boom time for coal on the Great Lakes," *Great Lakes/Seaway Review*, January-March 1998, p.32

⁹ "MERC: The Coal Handling King of the Upper Midwest," *Skillings Mining Review*, January 2003. MERC continued to break its own port coal tonnage records in 2001 and 2002 with 15.1 and 16.4 million metric tons, respectively. It should be noted that the Duluth Seaway Port Authority's cargo statistics listed here and elsewhere in this book are based on metric tons of 2,204.6 pounds each while MERC and other local dock operators usually use either short tons of 2,000 pounds or long tons of 2,240 pounds.

¹⁰ Ibid. Coal is separated into piles based on sulfur content, BTU rating, size and moisture content.

¹¹ Duluth Seaway Port Authority, Press Release, February 7, 2001, p.1. It was only the second time since iron ore became the Twin Ports' dominant cargo in 1895 that coal was the top cargo.

¹² Lake Carriers' Association/Seaway Port Authority of Duluth/Midwest Energy Resources Co., "Briefing Paper on Western Coal Trade on the Great Lakes," 1998, p.1