

# Ethanol innovation comes to Manly

Once a key yard, crew change point, and junction on the Chicago, Rock Island & Pacific, Manly, Iowa, has lost its status as a crossroads in the railroad world. The lightly-used yard is overgrown with weeds; the dilapidated roundhouse is now used only for storage. But the northern terminus of the Iowa Northern Railway will soon take on new importance as the home of Manly Terminal, an ethanol shipping point unlike anything else in North America.

Manly Terminal LLC, Iowa's first independent biofuels loading, storage, and trading terminal, and a wholly owned subsidiary of Iowa Northern Railway, broke ground this year in a field just north of town along the Union Pacific main and accessed from the Iowa Northern-owned former Rock Island freight yard. The commercial rationale for the facility is its ability to combine the output of area ethanol producers into trainload volumes more quickly than any single producer could by itself.

The typical 100 million gallon-per-year ethanol maker can only generate about a dozen cars a day of the stuff, so it'd take eight days to accumulate enough to fill a 100-car unit train. That means the facility has to build enough track (several miles at roughly \$250,000 a mile) just to accommodate enough cars to build a unit train. Then they have to lease enough tank cars at a conservative \$600 a month each to keep the pipeline full. At a turn a month, that adds \$6 per ton to the delivered cost of the ethanol — all so that the producer can get unit-train rates.

Manly Terminal eliminates the need for individual producers to provide miles of track and cars in multiples of 100 (or any track or cars at all, for that matter), to meet the parameters of the Class I's that are building their ethanol trade in unit trains. Instead, the Manly Terminal business model will provide enough storage for truck product and enough track space for rail product to build multiple trains each day, giving customers access to distant markets at unit-train rates.

In terms of infrastructure, the statistics are staggering. Project Manager Brad Sabin said that, in Phase I, there will be four tanks with total capacity of some 5 million gallons. Over time, that will increase to nine tanks and more than 90 million gallons. Yard plans call for more than four miles of tracks that will be able to hold some 1,600 cars without crowding. All told, that will lead to over 1 billion gallons per year working their way through the terminal, according to Manly Terminal forecasts.

The game plan is to spot and load 25 cars at a time, building a 100-car train every eight hours. With this kind of scheduling,



A massive ethanol storage tank was under construction this spring next to the old Rock Island yard in Manly, Iowa. Manly Terminal was to be operational this July. Brad Sabin

Iowa Northern anticipates selling spots on specific trains through their Web site ([www.manlyterminal.com](http://www.manlyterminal.com)); Iowa Northern President (and Brad's brother) Dan Sabin calls them "sailings."

To make this work, said Brad Sabin, they're planning for their ethanol to trade on the Chicago Board of Trade as "Manly ethanol," so the buyer knows the future cost of product and only needs to add his rail freight cost to arrive at a total price per gallon. Say a blender in Dallas forecasts that he'll need 300,000 gallons of ethanol in January 2008. He sees January 2008 Manly ethanol trading at \$1.88 at the Chicago Board of Trade. He then goes to the online Manly ethanol "sailing schedule" and finds a train departing Sep. 1 and arriving at the Dallas terminal Sep. 15. Assuming UP has quoted him a freight rate of 20 cents per gallon, he knows that his delivered cost will be \$2.08 per gallon. If this delivered price fits his requirements, and since each car holds some 30,000 gallons, he'll buy ten cars (just like buying seats on a ship, hence the "sailing" terminology) on the Sep. 1 sailing — direct through the Web site. This is how Manly Terminal and the Iowa Northern become a critical part of the ethanol buyer's supply chain management process.

Finally, that Manly Terminal is served by Iowa Northern adds yet another element of competitive advantage over the ethanol plant local to, say, CN or UP: Equal access to key ethanol destinations across the continent, regardless of which Class I railroad serves it. Iowa Northern directly connects with CN, UP, and BNSF (the latter via haulage rights over CN), and Iowa, Chicago & Eastern already handles a great deal of Iowa Northern cars to Chicago for interchange to CSX and NS. So when prices are down on one coast and up on another, Manly customers can sell where the market leads them.

Manly Terminal won't take ownership of the ethanol itself. It will simply be a place for producers and consumers of the product to store, trade, and ship ethanol. As time goes by, the company hopes to ship to various markets in scheduled trains, though that will depend on how the economics develop. In addition to the ethanol, plans call for the terminal to someday handle denaturant, methanol, biodiesel, caustic soda, hydrochloric acid, sulfuric acid, and other liquids. — Roy Blanchard

## Iowa Northern Railway and its connections

