Railroads, Utilities Clash Over Dust From Coal Trains

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An effort by railroad companies to control dust blowing from coal trains has drawn the wrath of electric-power generators and the attention of federal regulators.

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On its face, the dispute affects just more than 200 miles of track on two lines operated by BNSF Railway Co., but there are wide-ranging financial implications for the bottom lines of all U.S. railroad companies and the electric bills of ordinary Americans.

Three major rail carriers -- Union Pacific Corp., Norfolk Southern Corp. and CSX Corp. -- have filed paperwork to join the battle over coal dust. So have groups representing other shippers and power companies, including the American Public Power Association, which represents 2,000 or so community-owned utilities with more than 45 million Americans.

While the rail lines at the heart of the fight represent a fraction of the 233,000 miles of track in the United States, they rank with the most heavily traveled in the world and arguably the most important for U.S. energy production. The lines offer the only rail access to the Powder River Basin, a 20,000-square-mile region in Wyoming and Montana that produces 400 million tons of coal annually, almost 40 percent of the nation's total.

Two train derailments in May 2005 on the shorter of the two lines -- the Powder River Basin joint line -- left utilities short on coal, drove up energy prices nationwide and spurred warnings of possible brownouts.

Due to delayed coal deliveries and a lack of capacity after the derailments, Union Pacific -- which shares the joint line with BNSF -- stopped accepting new customers for Powder River Basin coal for nearly two years, from July 2005 to March 2007.

It was those derailments, BSNF said, that spurred its investigation of the effect of coal dust on railroad tracks.

After an extensive study, the company determined a dust buildup can prevent water from draining from track beds, which in turn can push steel rails out of gauge and cause derailments.

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In order to prevent a repeat of 2005, the company told coal shippers last summer that it planned to limit coal dust leaving trains. BNSF left it up to the shippers, which own or lease the vast majority of the open-topped coal cars, to figure out how to meet the emission limit and how to pay for it.

'Double dip'

The dust limits were originally set to kick in last November, but BNSF delayed them until August after shippers asked the federal Surface Transportation Board to intervene. The railway, meanwhile, has welcomed a board review, believing its three-member panel will rule in its favor.

Power plants and shippers are opposing the coal dust cap for two main reasons. They say there is no proven link between coal dust buildup and the derailments. And even if such a link exists, they say, cleaning up the dust should be done by railways, which are responsible for track maintenance under their contracts with shippers.

By forcing the shippers to tackle the dust problem, the power companies maintain railroads are double-dipping, charging twice for the same service. Once, for the maintenance costs that are part of shipping contracts, and a second to limit dust emissions.

The Arkansas Electric Cooperative Co. (AECC), a utility that serves roughly 500,000 customers and has an ownership stake in three coal-fired coal plants, was the first to request federal intervention. The company did not return calls seeking comment, but in paperwork filed with federal regulators, its lawyers maintain BNSF is to blame for the track problems on the joint line.

"There are strong reasons to believe that substandard construction and failure by BNSF to perform proper routine track maintenance are the primary causes of the problems that BNSF blames on the coal dust, including the 2005 derailments," the filing states.

Mitigation costs

Coal dust emissions can be limited by several basic steps, such as by low-profile "bread loaf" loading -- where the top of the coal pile is rounded to produce less drag -- or by strategically positioning coal-carrying cars along the train to shield them from the wind.

Still, to achieve the limits BNSF is hoping to implement, coal shippers would likely need to take additional steps, such as covering loads with tarps or, more likely, spraying on a latex coating to keep dust from taking flight.

Regardless of the option chosen, emissions mitigation will come at a price.

Industry estimates the spray will cost 10 cents to 30 cents per ton of coal. The Arkansas cooperative said vendors have failed to provide specific quotes, but their own estimates put the cost to shippers "in excess of $100 million annually."

Furthermore, the cooperative argues that even if coal dust were to blame for track damage and regular maintenance won't solve the problem, BNSF's proposal for monitoring dust is arbitrary and unfair. Because trackside monitors would be placed in set locations, longer-traveling trains would shed a lot of dust before reaching a check point. Likewise, shorter trains with fewer coal cars would likely emit less dust than longer ones.

"The nature of the coal dust problem -- if there even is one -- has not been defined, and there is no assurance that shippers can, on their own, solve the problem to the satisfaction of BNSF's monitoring system," AECC's filing states.

BSNF officials declined to comment given the ongoing proceedings, but their filings argue that the "extremely high traffic levels" from the Powder River Basin pose "formidable operational challenges" that make the dust cap necessary.

The railroad's filing stresses that it has no provisions to enforce compliance or include penalties for a failure to meet dust limits. And the company decries "speculative" arguments that it could deny service to shippers that fail to meet the dust standard.

But there is little doubt that increased shipping costs would be passed on, at least partially, to the customers, leading utilities to complain that average Americans will get socked in the wallet.

"If shippers cannot satisfy BNSF's arbitrary emissions standard, and BNSF refuses to transport their coal from PRB, the generation of electric power for huge numbers of customers will be put at risk," AECC's filing states.

Coal shipping

The Powder River Basin consists of 18 coal mines, including Arch Coal's Black Thunder mine, the largest in the world. The 400 million tons mined annually are shipped to more than 30 states, the Powder River Basin Coal Users' Group said.

The vast majority of that coal must first travel a 103-mile joint line. According to a 2007 Congressional Research Service report, the line handles more than 60 loaded coal trains each day, with each stretching more than a mile.

Power plants buy coal from a number of mines and regions based on coal's price, energy content and transportation cost.

Powder River Basin coal is among the easiest and cheapest to mine. For the week ending Jan. 15, a short-ton of Powder River coal was selling at a sixth of the price of Central Appalachian coal, according to the U.S. Energy Information Administration. The low price is often enough to offset Powder River coal's relatively low energy content and high shipping prices.

Shipping rates for moving coal along the BNSF's joint line -- which is partially owned by Union Pacific but operated fully by BNSF -- has been a sensitive subject.

In 2007, North Dakota-based Basin Electric Power Cooperative complained to the Surface Transportation Board that BNSF was a monopoly and charged too much for service. The board ruled in favor of the railroad, saying the cooperative failed to prove rates were "unreasonably high."

Last February, however, the board sided with Basin Electric and the Western Fuels Association in a separate case and forced BSNF to slash rates on particular coal runs and reimburse an estimated $100 million to customers.

Buffett's bet

Berkshire Hathaway Inc., the investment firm headed by finance icon Warren Buffett, made headlines last year when it announced a $26 billion buyout of the remaining BNSF shares. Buffett hailed the move as an "all-in wager on the economic future of the United States," but the move was seen by some as a big bet on coal.

Even with recent dips in U.S. coal use, coal remains by far the cargo most hauled by rail. In 2009, railroads moved more than three times as much coal as they did chemicals, the second most-hauled commodity measured by freight car volume, according to the American Association of Railroads.

Major railways are capital-intensive businesses that are unionized and heavily regulated, adding to already-expensive operations. Up to half of BSNF's annual operating expenses go to short-term variables like labor, fuel and track maintenance, which is particularly cost-intensive along the heavily traveled joint line.

In 2006, BNSF and Union Pacific began work on a $100 million improvement to the Powder River Basin track. At the time, Matthew Rose, BNSF's chairman, president and CEO, said the project "underscores BNSF's commitment to this country's coal and power industries."

Still, in the same statement, Rose stressed that the burden should not be carried by the railroads alone. "The rail, mining and generating industries," Rose said, "all need to work together to keep coal a strong part of the nation's future energy program."

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