

Coal Slurry Pipelines Can Provide Energy

By ROBERT MC NEIL

I recently thought about how very little we have done in the United States with energy and how unprepared we are for shortages.

Naturally, I thought also how many times in the last several years I have talked about the need for coal slurry pipelines to help meet America's energy requirements and how they should be a part of a long-range solution to the energy problems. Over and over, I have spoken about the availability of coal pipelines; about how they represent an economical and dependable technology, and about how they can help conserve oil and natural gas by making coal more available and more attractive. And those are the points I want to review here.

The technology of mixing pulverized coal with water or other liquid and pumping the resulting slurry through underground pipelines is well established. Its use in the United States has been limited because the rail industry has opposed it, as they have opposed other forms of transportation. The demand for coal slurry pipelines comes from the nation's need to make use of its coal resources.

I wonder how many millions of barrels of oil and how many billions of cubic feet of natural gas have been burned unnecessarily in industrial boilers and in generating stations in recent years because coal wasn't used.

There's no question in my mind that the United States is going to have to use a lot more coal. I think there has been general agreement on that point provided coal wasn't mined, or hauled in the most efficient manner or burned. That's the way it has been. Much of what Americans, as a nation, have done in recent years has worked

against the use of coal. As the Secretary of Energy said in a recent coal report to the President, the efforts to produce, transport and use coal have been marked by "delay, inaction, finger-pointing and uncertainty." The result has been a limited two percent rate of annual growth in coal use and increasing imports of oil.

Increasing reliance on foreign oil has put the U.S. in a precarious position. The pricing policies of the OPEC nations fan the fires of inflation and the instability of the governments in the Middle East put us at the mercy of politically inspired embargos because any minor producing nation can throw us into real chaos now simply by cutting off the pumps.

The Energy Secretary's report points out all these problems. But the report's main message to me, and the point I want to emphasize, is this:

The Energy Secretary says, "If the United States is to cope effectively with economic and national security problems during the rest of this century, the obstacles to increased coal production and use must be removed by an effective national commitment to coal."

That warning, like the energy problem, is bipartisan. Administrations, both Republican and Democratic, in this decade have called for increased use of coal and of coal slurry pipelines.

Right after the Oil Embargo of 1973, President Nixon asked that coal production be doubled to 1.2 million tons a year and that coal slurry pipelines be given the right of eminent domain. So did President Ford. President Carter has done the same, and now that call has been repeated.

Coal pipelines fill two important needs. They provide a reliable and economical means of delivering large

quantities of coal over long distances. This makes them ideally suited to meet some of the demands that coal conversion will put on the coal transportation system. But more important, as things have turned out, coal pipelines provide a competitive force in the market place that can help control the cost of coal transportation.

From the start it has been recognized that coal pipelines are inflation resistant; that the costs of operating a pipeline will not go up as fast as that of a railroad. Thirty percent of a pipeline's costs are subject to inflationary pressures while inflation affects 70 percent of a railroad's costs. That made economic sense four or five years ago to utilities and others faced with the prospect of burning coal instead of oil or natural gas. It still makes sense, but no one realized at first that the railroads, with their monopoly position, would push up the price of coal in captive markets faster even than inflation. And they are charging what the market will bear with the help and the encouragement of both the Department of Transportation and the Interstate Commerce Commission.

The exploitation of the coal market began in the Southwest, where Texas took an early lead in cutting back on the use of oil and gas as boiler fuels. This policy, adopted in 1975 and three years before the Congress mandated coal conversion, forced utilities in that state to start turning to coal. The experience has been disastrous. And it is symptomatic of what lies ahead unless we can break the railroad's near monopoly on the hauling of coal.

Consider these cases, all documented in the hearings conducted by the investigating subcommittee of the House Interstate and Foreign Commerce Committee.

The Celanese Corporation started three years ago to convert oil and gas fired generating stations at four petrochemical plants to coal. This was to be the first major coal conversion project by a private, nonutility corporation, but Celanese found that the railroads, who had always been cooperative in hauling their chemical products, wouldn't even come close to a reasonable offer on coal transportation. Unable to get a price that had any relation to the cost of service or to rates in effect elsewhere, Celanese went to the Interstate Commerce Commission. There, the railroads filed a rate that wrecked the economy of the plan. It called for \$10.95 a ton for the movement of 550,000 tons a year in coal cars that Celanese would have to buy. If Celanese failed to take all the coal in the contract the rate would jump to \$17.27. Celanese believed this violated all accepted standards of reasonableness and expected it to be rejected. They were wrong. The ICC approved it.

Now Celanese has abandoned its conversion plans for the other three plants and probably discouraged other corporations.

San Antonio, an early convert to coal, figures that electricity consumers there are going to be paying at least \$11 million every year in tribute to the railroads because they have no other way to get coal. And the officials in San Antonio say they won't use western coal again without some substitute mode of coal transportation. I have been told they are talking with coal suppliers in Australia.

The San Antonio case deserves special attention because it shows how radically the regulation of coal rates has changed recently. The city's initial decision to use coal was based on an offer of rail transportation at \$7.90 a ton. When the railroads raised that rate, the city protested to the ICC, and the ICC stepped in to reduce the proposed rail rate of \$12.60, ruling that \$10.93 was fair. Two years later, however, on the same set of facts, the ICC added an additional \$3.70 a ton or \$11.1 million a year to the San Antonio

rate, saying Congress now requires the ICC to help the railroads make money. San Antonio is now paying more than \$17 a ton for coal transportation.

The same type of price escalation is happening in Houston, where the power company there says that their experience with the railroads has forced them to drop plans to make western coal their main source of fuel. Houston Lighting and Power began its coal conversion program in 1973 with an offer of coal transportation at \$6.50 a ton in their own coal cars. That rate is now up to \$15.60 -- an increase of 140 percent in six years. And, the delays in the coal deliveries have forced the company to buy additional cars to get the coal they need. This is especially annoying since the electric company figures that having to buy coal cars is like requiring its customers to supply their own wires.

Down in Corpus Christi, the power company there says it can get coal from Africa cheaper than it can get it from Colorado. Amazing, isn't it? Central Power and Light Company decided in 1973 to switch from natural gas to Colorado coal. Their negotiations with the railroads for coal transportation broke down because the railroads asked what Central thought was an exorbitant rate. Then, the ICC in its first San Antonio decision, set a rate that was within one tenth of a mill of what Central thought was a reasonable price. So the utility signed a long-term contract for coal in Colorado, bought \$15 million dollars worth of railroad cars and went looking for someone to use the cars.

Then, they found the rules had changed. They now face a rate of \$18.89 a ton for coal delivery--double the \$9.50 they figured to be reasonable three years ago.

As a result of these difficulties, Central has bought a shipload of African coal, totalling about 40,000 tons. They are having it hauled by rail 300 miles to the African coast, transshipped 7,000 miles to Corpus Christi and carried to their plant in 1,600 separate truck loads, and it will arrive cheaper than coal from

Colorado 1,500 miles away. Central says the transportation cost of that coal would be less than it is on domestic coal if they could only get a reasonable rail rate to replace the trucks on the final 68-mile leg of the journey. But they can't get a railroad bid on the job.

That type of thing is not limited to Texas. In the East, the Louisville and Nashville Railroad (L&N) has upped its rates more than 25 percent. Testimony before the investigating subcommittee shows that rates to some of TVA's power stations, the ones without transportation alternatives, have gone up as much as 377 percent in the past year.

These astounding price increases are applied to shippers who can't protect themselves. The only effective ceiling on what the railroads can add to the price of coal at the present is the OPEC-dictated price of oil. After listening to the L&N's testimony, one member of the subcommittee, Congressman Gore of Tennessee, observed that the railroad was acting as "a silent partner of OPEC."

These stories I have been telling you are indicative of what the railroads do without competition. The Congress has given the railroads a little relief from regulatory controls and they are using it to pick on customers who don't have any other options. This has disturbing implications for most of us. The National Coal Association says that 83 percent of the electric utilities, who are the largest consumers of coal, are captives to the railroads. Since the utilities pass on to their customers the costs of fuel, including transportation, the consumer gets stuck with the bill.

Competition is the only effective answer. There should be no captive shippers at the mercy of the railroads. The experience of new rail captives, as I have shown, is either discouraging coal conversion at a time when national energy needs require the use of coal, not only for power generation but also for gasification and production of synthetic fuels, or putting Americans once again in the hands of foreign energy producers.