

**BEFORE THE
SURFACE TRANSPORTATION BOARD
Washington, DC 20423**

In the Matter of:

**RAIL TRANSPORTATION OF RESOURCES
CRITICAL TO THE NATION'S ENERGY SUPPLY**

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) **STB Ex Parte No. 672**
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**WRITTEN SUBMISSION OF
ARKANSAS ELECTRIC COOPERATIVE CORPORATION**

I. INTRODUCTION

Pursuant to the Board's notice dated June 6, 2007, this document contains the comments of Arkansas Electric Cooperative Corporation (AECC) regarding the reliability and efficiency of rail transportation of resources critical to the nation's energy supply. At the public hearing scheduled for July 18, 2007, AECC's views will be presented by Steve Sharp. Mr. Sharp is the Principal Engineer – Fuels & Civil for AECC.

AECC is a membership-based generation and transmission cooperative that provides wholesale electric power to electric cooperatives, which in turn serve approximately 460,000 customers located in each of the 75 counties in Arkansas. To serve its member distribution cooperatives, AECC has entered into arrangements with other utilities within the state to share generation and transmission facilities. The largest of AECC's generation assets are its ownership interests in the White Bluff plant at Redfield, AR and the Independence plant at Newark, AR, each of which typically burns in excess of 6 million tons of Powder River Basin (PRB) coal annually. AECC holds a

35 percent interest in each of these plants (for which Entergy is the operator and majority owner). In addition, AECC holds a 50 percent interest (with AEP) in the Flint Creek plant, which is located in Gentry, AR. This plant normally burns in excess of 2 million tons of PRB coal annually. As a result of the large volume of coal used by these plants and the dependency of that coal on long-distance rail transportation, AECC has a direct interest in issues related to the reliability and efficiency of rail transportation, particularly in the context of PRB coal movements.

II. RAIL RELIABILITY AND EFFICIENCY ISSUES

AECC is keenly aware of the critical importance of reliability in the rail transportation of energy resources. On several occasions, rail deliveries of PRB coal to AECC's plants have fallen short of planned and committed levels. Three times in the past 14 years, delivery shortfalls have been so severe that restrictions on PRB coal burn at AECC's plants have been necessary.

AECC also is aware of the central role that efficiency improvements historically have played in the evolution of PRB coal transportation under the Staggers Act. For most of the past 27 years, a long series of productivity improvements has benefited carriers and shippers alike, reducing costs, lowering the cost floor for competitive rates and applying downward pressure on the cost factors that enter reasonableness determinations for captive rates.

AECC's comments address the following topics:

- rail service disruptions and their causes;
- impacts of rail unreliability; and,

- prospective Board actions to support improved reliability and efficiency in the energy supply chain.

A. Service Disruptions and Their Causes

A review of the three episodes of rail service disruption that necessitated burn restrictions at AECC's plants reveals important considerations related to the causes of rail reliability problems. In particular, it shows how pressures for short-term financial performance may undermine sound management of the rail network, and foster the types of major service disruptions that have occurred during the past 10 years.

Episode # 1 – The first episode occurred in 1993, when severe flooding in the midwest disrupted rail service over a broad area. For a period of approximately six weeks, PRB coal deliveries to AECC's plants were seriously disrupted. However, AECC's plants were able to rely on their coal inventories to effectively counteract most of the delivery shortfall, so the actual adverse financial impact of the service disruption on AECC was minimal.

In the context of more recent rail reliability problems, the 1993 episode looks like the “good old days” in that coal stockpiles were able to cushion most of the impact of that large natural disaster.¹ It is also important to note that rail management had no role in creating the service disruption, and acted aggressively to restore service.

Episode #2 - The second episode occurred in the wake of the UP/SP merger, which produced the then-unprecedented “meltdown” of rail service over a broad region for an extended period in 1997 and 1998. In this episode, PRB coal deliveries to AECC's plants were severely disrupted for a period of approximately 24 weeks, and the adverse financial impact on AECC totaled many millions of dollars. Put another way, infirmities

¹ This fact also corroborated the reasonableness of the stockpiling practices employed at these plants.

in the methods used to plan and/or implement the UP/SP merger produced a service disruption approximately four times the size of the disruption produced by the midwest flooding disaster of 1993.

In addition to its size, a distinguishing feature of this disruption is the fact that it was man-made and basically self-inflicted. Unlike natural disasters, whose scope and frequency may be estimated from past experience but are not subject to human control, this episode appears to have resulted directly from rail management decision-making. Skimping on merger planning and rushing to capture operating cost savings may look like ways to generate short-term results that will please the financial community, but this episode demonstrates how they can undermine the integrity of the interstate rail network.

Episode #3 - AECC is still being affected by the third episode, which began with the PRB Joint Line infrastructure collapse that occurred in May 2005. In this episode, fuel supply to AECC's plants has been disrupted for over 100 weeks, and the dollar impact is several multiples of the largest disruption ever previously experienced by AECC (i.e., the UP/SP episode). AECC's plants are still buying non-PRB coal at comparatively high prices to make sure that coal piles achieve target levels.

Again, this problem was man-made and self-inflicted. While the railroads initially asserted that the collapse was caused by "unusual" and "unprecedented" amounts of snow and rainfall acting upon accumulated coal dust, National Oceanic and Atmospheric Administration (NOAA) data for this portion of Wyoming demonstrate that these assertions were untrue. For example, the historical average amount of moisture received in May, expressed in inches of water, is 2.50 inches for Douglas, WY (near the south end

of the Joint Line) and 2.95 inches for Gillette (near the north end).² In May of 2005, Douglas received 2.55 inches, just 0.05 inches above average.³ At the same time, Gillette received 2.89 inches or 0.06 inches below average.⁴ Both locations received less than average precipitation in April 2005. For the entire precipitation cycle beginning October 1, 2004, there appears to be no part of the Joint Line that received abnormally high precipitation.

Precipitation was only “abnormal” in comparison to the drought conditions that had been experienced in the region over the preceding few years. Rather than perform the routine maintenance that would keep the Joint Line ballast appropriately clean under normal weather conditions, the railroads let coal dust pile up and apparently hoped that they would be able to detect and remedy any ballast instability it produced before things got out of hand. Eerily reminiscent of Captain Smith’s decision to run RMS Titanic fast through an iceberg lane under the theory that any berg large enough to do damage would be detected by the night watch, the railroad approach to Joint Line maintenance produced a strikingly similar result.

In this case, the railroads cannot even rely on the premise that the danger was unknown or difficult to see. The importance of keeping foreign material out of railroad ballast, and the risks that such material may impede drainage and reduce the interlocking of ballast particles, are well-known to rail operations and engineering personnel. In the case of the PRB Joint Line, the accumulation of coal dust was not hidden, at least not from those responsible for operating and maintaining the line. Rather, the evidence

² See NOAA, Climatography of the United States No. 81 (48 Wyoming) at page 13, as presented at http://www.wrds.uwyo.edu/wrds/wsc/normals/monthly_normals.pdf.

³ See http://www-wwrc.uwyo.edu/wrds/wsc/monthsum/2005May/dou_05_05.html.

⁴ See http://www-wwrc.uwyo.edu/wrds/wsc/monthsum/2005May/gil_05_05.html.

indicates that the railroads simply chose to let the dust accumulate rather than take the steps needed to properly maintain the roadbed.

Deferring maintenance might be understandable if the line in question were a marginal branch line that didn't cover its costs. However, the PRB Joint Line is one of the busiest rail lines in the world. The railroads cannot credibly assert that the volumes or rates associated with PRB coal traffic are insufficient to justify proper maintenance of the Joint Line.

What coal shippers and the Board are left with is the demonstrated willingness of the railroads to "bet the rent" that the drought prior to 2005 in eastern Wyoming would continue, and let their bottom line results be inflated by the "savings" associated with not properly maintaining the line. Such skimping on maintenance may yield short-term results that please the financial community, but it ultimately undermines the integrity of the rail network.

Summary - AECC accepts the general proposition that unplanned events sometimes occur that disrupt normal rail operations, and that a prudent coal user would not count on receiving 100% rail service reliability. As exemplified by the midwest flooding, natural disasters happen, but their impacts typically can be minimized or eliminated through maintenance of a properly-sized coal pile.

AECC's experience indicates that the biggest actual problems with rail reliability have not arisen from natural disasters. Likewise, they have not arisen from excess volume or insufficient capacity or inadequate revenue or any of the other themes traditionally played by the railroads for the Board. Rather, during the past 14 years, the biggest actual reliability problems have resulted from myopic decision-making by rail management

under pressure from the financial community to produce favorable short-term results. The portion of the financial community that pressures the railroads does not operate with a concern for the national transportation policy, the long-term health of the interstate rail network or the railroads' customers. Any credible effort to improve/ensure rail service reliability must begin with a realistic consideration of this overarching issue.

B. Impacts of Rail Unreliability

Railroads, like many (or even most) other transportation systems, may experience variations in service performance due to numerous potential factors. A "broken knuckle", signal or track problems, bad weather, a lack of crew availability and many other factors may cause a given train movement to deviate from expected travel times. Moreover, when one train is delayed, that delay may affect subsequent movements as well. These types of deviations from planned performance are shared by everything from public transit to airlines to private automobiles to the space shuttle.

To protect against random variations in delivery performance, coal users typically maintain an inventory in the form of a coal pile. At AECC's plants, coal piles normally provide for 30 to 45 days of coal consumption at normal rates.

As described in Section II.A (above), the coal piles at AECC's plants have provided an effective cushion against delivery disruptions associated with the largest natural disasters of the past 25 years. However, the protection afforded by the coal piles has been overwhelmed by the size of the more recent, man-made mega-disruptions, the last of which is still impacting AECC today.

In the context of established coal inventory practices, the mega-disruptions have had several specific adverse consequences. Burn restrictions have reduced the output

generated by coal-fired plants, and created on comparatively short notice a need to acquire alternative fuels, or power from alternative sources, at dramatically increased cost. This has produced severe resource misallocations, and caused AECC and other coal users to pursue fuel options that for decades have been “off the radar”. In the case of AECC’s plants, this has included use of western bituminous coal, which the Board itself has found is not an economical substitute for PRB coal.⁵

Even more extreme, profound rail reliability problems have caused AECC and others to look at alternative fuel supplies that minimize or eliminate altogether reliance on the railroads for fuel transportation. For example, current and future power plants in Arkansas may make much greater use of local coal and petroleum coke. Such fuels typically have few if any technical advantages over PRB coal, other than minimization or complete avoidance of reliance on rail transportation.

It has also become “rational” to develop logistical channels for importing coal from Colombia, Indonesia and elsewhere. While such coals may be thrown into the breach to counteract disruptions in the rail movement of PRB coal, their use is plainly at odds with the energy independence and security considerations articulated in the Board’s notice.

When substitute coals cannot be obtained in sufficient volume, use of alternative fuels can produce additional adverse impacts. For example, to the extent that coal users have to obtain substitute power from gas-fired plants, rail unreliability can propagate as a shock to natural gas markets. This has already occurred in the wake of the PRB Joint

⁵ See STB Finance Docket No. 32760, Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company--Control and Merger--Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., and The Denver And Rio Grande Western Railroad Company, Decision No. 44 (August 6, 1996) at page 127.

Line problems, compounding the impacts of the Gulf Coast hurricanes and the associated damage to gas production infrastructure.

Overall, major rail service disruptions produce a smorgasbord of adverse impacts on coal users and their customers, future rail traffic volumes, other energy markets, efficient resource allocation in general and energy independence. It is appropriate – indeed, essential - for the Board to attach a high priority to minimizing the likelihood and severity of future rail service disruptions.

C. Potential Board Actions

While the Board may be tempted to view this as a situation where coal shippers can simply help themselves through such actions as expanding inventories and diversifying fuel sources, such a view would be counter-productive for several reasons. As a practical matter, the costs and logistical complexities associated with establishing and maintaining inventories sufficient to counteract the massive rail service disruptions that have been observed would be extremely large. As a policy matter, expanding coal inventories would avoid proper consideration of the causes of rail unreliability, and would amount to treating the symptoms instead of the causes. It would improperly insulate the railroads from accountability and responsibility for the consequences of their managerial decisions.

As the Board already has noted, some of the worst rail service disruptions have occurred in the aftermath of mergers that reduced the number of rail competitors from 3-to-2 (including UP/SP and the Conrail breakup).⁶ They have also occurred in the aftermath of the Board's decision in the "bottleneck" cases, which enabled a carrier

⁶ See, for example, STB Ex Parte No. 582 (Sub-No. 1), Major Rail Consolidation Procedures, decision served June 11, 2001 at page 20.

serving a captive movement to leverage its exclusive service at the destination into exclusive service over the entire haul.

This raises the question of whether the loss of independent competitors through mergers and/or the loss of shorthauling opportunities through the bottleneck decision have contributed to the mega-disruptions that subsequently have occurred. When three carriers are competing, unreliable performance by Carrier A can lead to a direct competitive response from Carriers B and C that causes Carrier A to lose some or all of the traffic. However, if two of these carriers merge (and, in the course of merging, aggressively eliminate duplicative capacity), the two carriers remaining will have comparatively lower incentive and/or ability to take traffic from each other in the event that one experiences a service disruption.

Likewise, on a captive movement, a service disruption experienced by the carrier serving the destination could prospectively be counteracted by another railroad willing to participate in a route that shortens the haul of the destination carrier. If the destination carrier is not required to participate in a route that shortens its haul, the potential competitive response of other railroads to the destination carrier's poor service is lost.

More specific issues associated with past mergers and the Board's bottleneck criteria are discussed below:

Merger issues – The Board regularly reminds shippers and carriers of its authority under Section 722(c) to reopen, reconsider and revise past actions and decisions, including the imposition of merger conditions, in the event of "...material error, new evidence or substantially changed circumstances." Nevertheless, such authority has rarely, if ever, been exercised.

To the extent that hindsight shows ways in which past rail mergers have contributed to current rail reliability problems, the Board should be prepared to exercise its authority to implement appropriate remedial actions. AECC is unaware of any instance in which the Board has approved decreased reliability as part of any merger. However, if mergers have in fact contributed to decreased reliability, it would produce incentives for inefficiency – as well as complete inequity – if the Board were to place the burden of such decreases on coal users.

While the Board has articulated a concern that it could chill productive future transactions by retroactively changing the settled terms of past transactions,⁷ this principle works in favor of the type of reopening at issue here. Past merger approvals have clearly stated the benefits upon which they are based, and reminded the parties of the Board's perpetual authority to revisit such approvals. If a transaction produced adverse effects that were not approved by the ICC or Board, the merging carriers knew, or should have known, that such adverse effects would be inconsistent with the merger authority that was granted and subject to remedial action.

If the Board does not enforce the premises of preserved competition embodied in past merger decisions, it will promote inefficient future transactions by leading railroads to believe that the Board will simply send shippers the bill for unanticipated problems the railroads may create.

⁷ See, for example, STB Finance Docket No. 33556, Canadian National Railway Company, Grand Trunk Corporation, And Grand Trunk Western Railroad Incorporated—Control—Illinois Central Corporation, Illinois Central Railroad Company, Chicago, Central And Pacific Railroad Company, And Cedar River Railroad Company, Decision No. 40 (December 20, 2002).

Bottleneck issues - The Board's December 27, 1996 decision in the bottleneck cases specifically contemplated the possibility that captive shippers would need a method to obtain relief in the event that the destination carrier's market power enabled it to subject the shipper to inadequate service. To address this type of situation, the Board indicated that shippers should seek competitive access remedies (i.e., through routes, terminal trackage rights and/or reciprocal switching).

AECC is unaware of any shipper efforts to date that have successfully addressed poor service through competitive access remedies. However, in light of the apparent role of the bottleneck decision in suppressing competitive responses to service problems, and the Board's own prior guidance, the Board should maintain a willingness to apply meaningful competitive access relief where warranted by service problems.

Even beyond this, the Board should give consideration to the possibility that changes in the rail marketplace during the past decade have altered some of the factors that may have supported the original bottleneck decision. In the case of PRB coal, shippers have developed competitive transportation options (typically through buildouts or barge service) for many previously-captive plants. This is understood to have reduced the proportion of traffic for which railroads receive benefits from the existing bottleneck criteria. On the other hand, prodigious volume growth for PRB coal and other commodities has raised the importance of efficiency considerations that are undermined by the bottleneck criteria.

As currently constituted, the bottleneck criteria effectively prevent a shipper from utilizing a route that makes use of the most efficient components of the networks of different carriers. For example, BNSF movements of PRB coal to points southeast of

Kansas City generally make use of BNSF's route from the PRB to Kansas City. Under the bottleneck criteria, shippers of such movements are unable to avail themselves of UP's shorter and apparently more efficient route from the PRB to Kansas City. Using the Black Thunder Mine as a common point of reference, UP's route from the PRB to Kansas City is approximately 767 miles, while BNSF's is approximately 828 miles.⁸ All else equal, permitting a PRB coal train to make use of UP's route to Kansas City instead of BNSF's would reduce the variable cost for that portion of the movement by over 7 percent. Whether the savings accrue in the form of enhanced carrier profits or shipper rate reductions, they are real efficiency improvements that could be achieved through a greater reliance on market forces to guide the routing of traffic.

Likewise, the bottleneck criteria effectively eliminate the option for BNSF to respond to UP reliability problems out of the PRB by increasing the volume it handles to Kansas City. While route segment substitution of this type would increase costs relative to a UP move, it would be far less expensive than the alternatives faced by UP shippers when UP service is disrupted.

In general, the Board should entertain the possibility that the bottleneck criteria have outlived their former usefulness, and may need to be revisited. In an environment where excess capacity has been removed and capital investment may be required to support capacity increases, the efficiencies associated with placing a greater reliance on market forces to route traffic may now outweigh the utility of the bottleneck criteria. Such forces would improve the efficiency of both current operations and any needed investments in future capacity expansion.

⁸ See Nelson, Michael A., Rail Fuel Use and Surcharges for White Bluff and Independence Plants, STB Filing ID No. 216548, submitted May 15, 2006 pursuant to Chairman's instructions in STB Ex Parte No. 661, at Table 2.

Summary - Actions of the types described above represent ways the Board properly can make use of its authority and expertise to address constructively the causes of rail reliability problems. By making measured use of market forces, the Board can improve both the reliability and the efficiency of rail transportation for the nation's critical energy resources.

In taking such actions, the Board would effectively counteract the pressure for short-term decision-making currently experienced by rail management. Absent such actions, further mega-disruptions in rail service caused by myopic decision-making should be viewed as inevitable.

As the guardian of the public interest in rail matters, it is appropriate and necessary for the Board to use its authority to prevent this outcome. To operate the rail network in a manner that is consistent with the public interest, rail management needs to be motivated to make decisions based on a long-term view.

At one time, poor management decisions by a railroad – such as the myopic decisions that produced the mega-disruptions of the past 10 years - tended to be nullified by competitive responses from other railroads. To ensure the reliability of the interstate rail network, the Board should not hesitate to rely on competitive market forces to respond to unacceptable performance that it may observe.

AECC appreciates this opportunity to participate in the Board's consideration of issues associated with the rail transportation of energy resources.

Respectfully submitted,

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