#### SURFACE TRANSPORTATION BOARD

#### **DECISION**

#### Docket No. FD 35305

# ARKANSAS ELECTRIC COOPERATIVE CORPORATION—PETITION FOR DECLARATORY ORDER

<u>Digest</u>:<sup>1</sup> This decision finds that a rail carrier cannot enforce its rule as currently written requiring a rail shipper to limit the loss of coal dust from the top of coal cars during transit. While the Board concludes that coal dust poses a serious problem for railroad operational integrity and that rail carriers may take reasonable measures to address the problem, the challenged tariff in this case creates too much uncertainty to be deemed a reasonable practice.

Decided: March 2, 2011

In response to a petition filed by Arkansas Electric Cooperative Corporation (AECC) on October 2, 2009, and the reply of BNSF Railway Company (BNSF) on October 21, 2009, the Board instituted a declaratory order proceeding under 49 U.S.C. § 721 and 5 U.S.C. § 554(e) on December 1, 2009.<sup>2</sup> The purpose of this proceeding is to consider whether a tariff amendment by BNSF that requires tariff shippers of coal from the Powder River Basin in Wyoming over certain lines to (1) meet specified quantitative measurements of coal dust emission set forth in the tariff, as gauged by rail side monitoring devices operated by BNSF, and (2) ensure that coal loaded by the Shippers' suppliers is "profiled" according to specifications set forth in an

<sup>&</sup>lt;sup>1</sup> The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. <u>Policy Statement on Plain Language Digests in Decisions</u>, EP 696 (STB served Sept. 2, 2010).

The parties of record in this proceeding include coal shippers, certain associations, railroads, and the United States Department of Transportation (USDOT). The following parties are referred to collectively as Shipper Interests: Arkansas Electric Cooperative Corporation (AECC), Western Coal Traffic League (WCTL), Concerned Captive Coal Shippers (CCCS), Ameren Energy Fuels and Services Company (Ameren), American Public Power Association (APPA), Edison Electric Institute (Edison), National Coal Transportation Association (NCTA), National Rural Electric Cooperative Association (NRECA), Texas Municipal Power Agency (TMPA), and TUCO, Inc. (TUCO). The following parties are referred to collectively as Coal Carriers: BNSF Railway Company (BNSF), Union Pacific Railroad Company (UP), Norfolk Southern Railway Company (NSR), and CSX Transportation, Inc. (CSXT).

appendix to the tariff, is an unreasonable practice under 49 U.S.C. § 10702.<sup>3</sup> This decision discusses:

- (1) whether the dispersion of coal dust along the lines at issue poses a serious problem for operational integrity. We find that it does;
- (2) whether BNSF may establish rules that require shippers to take actions to limit coal dust dispersion from coal trains operated by BNSF over its lines. We hold that BNSF may require shippers to take reasonable measures to address the problem; and
- (3) whether the specific provisions of the tariff before us constitute a reasonable practice under 49 U.S.C. § 10702. We find that the provisions of the tariff, when considered as a whole, are not reasonable and, therefore, violate § 10702.<sup>4</sup>

#### **BACKGROUND**

On May 27, 2009, BNSF issued Tariff 6041-B Items 100 and 101, the provisions at issue, which apply to coal traffic moved by BNSF in common carriage over BNSF's Black Hills Subdivision and the Joint Line. The Joint Line is a 102-mile line, jointly owned by BNSF and UP, over which both carriers' traffic moves from southern Powder River Basin (PRB) mines to their rail networks for delivery to utilities across the United States. The Joint Line is operated and maintained by BNSF.<sup>5</sup> Only BNSF traffic travels over the Black Hills Subdivision. The tariff provisions require that PRB coal shippers using the Joint Line or the Black Hills Subdivision ensure that the emission of coal dust from the coal cars does not exceed the coal dust emission standards set forth in the tariff, but does not direct the shippers to use a particular reduction technique or describe the consequences of non-compliance. The tariff provides in relevant part that: "Shipper shall take all steps necessary to ensure that Trains handling cars loaded with coal from any mine origin that move over the Joint Line or Black Hills Subdivision shall not emit more than an Integrated Dust Value (IDV.2) of 300 units or 245 units, respectively in order to enhance retention of coal in rail cars." The IDV.2 standard is a measure of coal dust emission from passing open-top coal cars that BNSF collects with electronic dust monitors, called E-Samplers, placed at different locations along the Joint Line. In addition, the tariff

<sup>&</sup>lt;sup>3</sup> The tariff does not by its terms specify what penalties or other enforcement mechanisms would apply in the event that a shipper fails to comply with the terms of the tariff.

<sup>&</sup>lt;sup>4</sup> An additional issue raised by AECC is whether refusal to provide service to shippers not in compliance with the tariff provisions would violate BNSF's common carrier obligation. We do not reach a decision on this issue as the finding that the tariff is unreasonable renders it unnecessary.

<sup>&</sup>lt;sup>5</sup> In 1983, predecessors of BNSF and UP entered into an agreement (Joint Line Agreement) that governs rail operations over the Joint Line. The Joint Line Agreement states that BNSF: (1) is the operator of the Joint Line; (2) is responsible for the maintenance of the Joint Line; and (3) has the right to establish operational rules so long as they do not discriminate in favor of either carrier.

requires that shippers' coal suppliers, when loading coal into open top cars for carriage on the Joint Line, "profile" the coal, <u>i.e.</u>, ensure that the coal when loaded into the car conforms to specific load shape and dimensions, according to a "template" included in the tariff. The tariff provisions were scheduled to go into effect on October 1, 2010.<sup>6</sup>

The tariff provisions resulted from studies that BNSF claims show that coal dust from PRB coal destabilizes rail bed ballast, which underlies and stabilizes tracks, more than other contaminants (or "foulants"). According to BNSF, two derailments that occurred on the Joint Line within a few miles of one another on May 14 and 15, 2005, prompted the studies. BNSF asserts that those studies show that the derailments were the result of coal dust in the ballast that, when combined with water from extraordinary amounts of precipitation, weakened the roadbed and caused the track failure. BNSF claims that coal dust had not previously been identified as a significant ballast contaminant and that this newly-recognized hazard needs to be reduced to prevent future accidents. BNSF also states that it has been engaging in more frequent maintenance of the Joint Line through "undercutting" and ballast contamination removal than would otherwise be the case, in order to remove dispersed coal dust from the rail beds, resulting in added cost and reduced efficiencies.

The Shipper Interests generally dispute the carrier's claims. They argue that the railroad is to blame for the derailments, pointing to reports in the immediate aftermath of the derailments that cite defective construction and inadequate maintenance of the line.

The Board instituted this proceeding to determine if the proposed tariff provisions constitute an unreasonable rule or practice. Following the submission of evidence and arguments, the Board held a hearing on this matter on July 29, 2010.

<sup>&</sup>lt;sup>6</sup> BNSF originally proposed to make the tariff effective on November 1, 2009. On October 21, 2009, in its reply in opposition to AECC's petition for injunctive relief to enjoin enforcement of the tariff, BNSF stated that it would suspend the effective date of the provisions until August 1, 2010. In response, AECC withdrew its petition to enjoin. In its rebuttal, BNSF stated that it further suspended the effective date of the tariff provisions until October 1, 2010, to allow the Board time to deliberate. On September 30, 2010, AECC filed a petition to enjoin BNSF from enforcing the tariff provisions until the Board resolves the underlying petition for declaratory order. AECC stated that it had requested that BNSF delay the effective date of the tariff provisions, but that BNSF denied this request and planned to implement the tariff provisions on October 1, 2010. Similarly, on September 30, 2010, the WCTL, APPA, Edison, and NRTCA filed a motion for a housekeeping stay asking that the Board issue an order enjoining the effective date of the tariff provisions pending a further order of the Board. On October 7, 2010, BNSF replied to both petitions, stating that it did not intend to implement any enforcement of the tariff without providing shippers at least 60 days advance notice. On that basis, the Board denied both AECC's petition and the motion for a stay by decision served on November 5, 2010.

#### DISCUSSION AND CONCLUSIONS

In this proceeding, we are called upon to resolve this dispute regarding the legality of BNSF's Tariff 6041-B Items 100 and 101. AECC maintains that the tariff is an unreasonable practice, in violation of 49 U.S.C. § 10702(2) (carriers shall establish reasonable rules and practices). As the party petitioning the agency for a declaratory order, AECC (together with other parties who intervened in support) bears the burden of proof in this proceeding. See 5 U.S.C. § 556(d); City of Lincoln v. STB, 414 F.3d 858, 862 (8th Cir. 2005). As discussed below, AECC and other interested parties have demonstrated that the challenged tariff is unreasonable.

Our analysis of the reasonableness of the challenged tariff is set forth in three sections. In Section I, we discuss the governing legal standard and our conclusion that a full cost-benefit analysis is not required by BNSF before it can attempt to control coal dust emissions. In Section II, we find that coal dust emission is a significant problem and that BNSF may take reasonable steps to address the problem. In Section III, we address our ultimate holding that the tariff provision is nonetheless unreasonable, given the level of uncertainty in the existing tariff and the available methods to control coal dust.

## I. LEGAL STANDARD

There is considerable discord between the parties on the proper legal standard we should apply in this proceeding. The Shipper Interests and the Coal Carriers agree that whether a particular practice is unreasonable under 49 U.S.C. § 10702 depends upon the facts and circumstances of the case. BNSF further states that the focus of the Board's inquiry should not be what the Board believes is the most reasonable practice, but simply whether BNSF's tariff is a reasonable response to the coal dust issue. The Shipper Interests assert that the Board's responsibility is to examine whether the proposed tariff is reasonable from a public perspective rather than rational from BNSF's perspective. USDOT argues that a tariff rule must be technically well-grounded and cost-effective at resolving the problem of coal dust emissions.

<sup>&</sup>lt;sup>7</sup> For example, WCTL/CCCS Opening 11, citing N. Am. Freight Car Ass'n v. BNSF Ry. (North American Freight Car), NOR 42060 (Sub-No. 1) slip op. at 8 (STB served Jan. 26, 2007), pet. for review denied sub nom N. Am. Freight Car Ass'n v. STB, 529 F.3d 1166 (D.C. Cir. 2008); BNSF Opening at 20, citing Granite State Concrete Co. v. STB, 417 F.3d 85, 92 (1st Cir. 2005); NSR Reply 2-3.

<sup>&</sup>lt;sup>8</sup> WCTL/CCCS Rebuttal 9-10, citing <u>Consolidated Rail Corp. v. ICC</u> (<u>Conrail</u>), 646 F.2d 642, 647 (D.C. Cir. 1981).

<sup>&</sup>lt;sup>9</sup> USDOT Rebuttal 1. Specifically, USDOT states, "the methodology the carrier has employed must be sound, the limits must be effective, and . . . alternatives must not be clearly less costly. Because shippers must ensure that their property remains in rail cars, it is appropriate that they absorb the expenses of the most cost-effective option when their coal dust escapes."

The parties disagree whether and how a cost-benefit analysis should be utilized to determine the reasonableness of BNSF's coal dust provisions. USDOT argues that the most cost effective solution to the problem is the reasonable method. The Shipper Interests cite case law stating that the concept of reasonableness requires the balancing of costs and benefits. They cite Conrail, in which the D.C. Circuit stated that the Board's analysis should include whether benefits of certain safety measures were commensurate with their costs, and whether the measures were economical when compared with other possible safety measures. In North American Freight Car, the Board, following a decision by the First Circuit, Granite State Concrete Co., 417 F.3d at 92, concluded that it had discretion regarding a request to employ the Conrail approach:

[T]he <u>Conrail</u> decision was premised on facts not present here and on a statutory scheme predating the Staggers Act. In any event, in section 10702, Congress did not limit the Board to a single test or standard for determining whether a rule or practice is reasonable; instead, it gave the Board "broad discretion to conduct case-by-case fact-specific inquiries to give meaning to those terms, which are not self-defining, in the wide variety of factual circumstances encountered." <u>Granite State Concrete Co. v. STB</u>, 417 F.3d 85, 92 (1st Cir. 2005); <u>see also WTL Rail Corp.—Pet. For Dec. Order and Interim Relief</u>, STB Docket No. 42092, slip op. at 6 (STB served Feb. 17, 2006). This broad discretion is necessary to permit the Board to tailor its analysis to the evidence proffered and arguments asserted under a particular set of facts.

Whether a particular practice is unreasonable depends upon the facts and circumstances of the case. The Board gauges the reasonableness of a practice by analyzing what it views as the most appropriate factors. While we believe that a general presumption that a tariff should employ cost-effective practices that are reasonably commercially available is a valid standard to be applied to the coal dust problem, the cost-benefit analysis suggested by the Shipper Interests does not fit the circumstances of this proceeding and the available evidence. As an initial matter, the Shipper Interests, who advocate this approach, did not provide a cost-benefit analysis that includes all the costs and benefits of each alternative. The Shipper Interests' analysis also

<sup>&</sup>lt;sup>10</sup> USDOT Rebuttal 7.

<sup>&</sup>lt;sup>11</sup> AECC Opening 4, citing <u>Int'l Union, United Auto.</u>, <u>Aerospace & Agric. Implement Workers v. OSHA</u>, 938 F.2d 1310, 1319 (D.C. Cir. 1991) (<u>International Union</u>) (citing <u>Conrail</u>, 646 F.2d at 648).

<sup>&</sup>lt;sup>12</sup> Conrail, 646 F.2d at 647-8.

<sup>&</sup>lt;sup>13</sup> N. Am. Freight Car, slip op. at 8.

BNSF Rebuttal, Kalt and Mitchell V.S. 15-16. We also note that while Shipper Interests use the term "cost-benefit" analysis, the more apt term given our finding on the impact of coal dust is "cost-effectiveness" analysis. In a cost-effectiveness analysis, once a determination has been made that a problem exists for which a solution is required, the focus is on whether the solution is effective in relation to its costs.

ignores the persistent capacity constraints that would be created by a coal dust solution that focuses exclusively on maintenance, a real-world cost that BNSF has persuaded us should be included in any analysis.<sup>15</sup>

In addition, as several parties have pointed out in this proceeding, the science regarding the effects of coal dust dispersion, and its effective control, is still evolving, and carriers continue to work with shippers on a collaborative basis to develop the methods that will achieve the optimal results in a commercially practicable manner. Thus, we cannot conclude that one set method of coal dust emission control—or of mitigating the effects of coal dust dispersion—is the superior method in a cost-benefit analysis, as such a conclusion may effectively lock in use of that method. Shippers and railroads should have flexibility to create incentives to experiment with new methods that could later prove to be better. Certainly, any tariff provision must be reasonably commensurate economically with the problem it addresses, but requiring a formal cost-benefit analysis whenever a shipper challenges a new practice would unnecessarily limit the Board's discretion. There may be instances where a full, quantified cost-benefit analysis is warranted, but this is not that instance.

#### II. COAL DUST EMISSION IS A SIGNIFICANT PROBLEM

## 1. Coal dust is a particularly harmful ballast foulant.

The extent of the problem caused by coal dust emission is a fundamental finding in determining the reasonableness of the tariff. The science related to coal dust is evolving and we expect that there will be continued work in the field to examine the impact of coal dust on rail ballast, including studies sponsored by shipper and carrier groups, ideally in collaboration. However, we must resolve this controversy based upon the evidence available at this time. Based on the record before us, we find that BNSF's arguments and evidence are sufficiently persuasive for the Board to hold, at the outset, that coal dust is a pernicious ballast foulant.

Ballast is an essential structural component of the track primarily because it transfers the load of the train from the tie to the subballast or earth. It also prevents the movement of the track laterally, horizontally, and vertically. Ballast is a uniformly graded stone material, which thereby provides voids that function as drainage pathways for water falling upon the track. Fouling occurs when foreign material such as broken-down ballast and ties, dirt and dust blown from the surrounding area, or granular material spilled from rail cars during transit falls onto the track and occupies the voids in the ballast section. The blockage of the drainage pathways by the fouling agents slows and reduces the ballast's drainage capabilities. When this happens, water can remain on the ballast particle surfaces and can even accumulate within the ballast section. These conditions weaken the ballast's load carrying capacity, the water essentially acting as a

<sup>&</sup>lt;sup>15</sup> BNSF Reply 17-18.

<sup>&</sup>lt;sup>16</sup> For example, UP counsel's testimony at the hearing mentioned testing for a mechanical compression device involving UP, BNSF, shippers, and vendors. Hearing Tr., 76, July 29, 2010.

lubricant between the ballast particles. Additionally, the fouling agents themselves can act as a lubricant on the ballast particle surfaces. Where large portions of ballast are fouled, the track then can become susceptible to movement when a train travels over the tracks.

The Shipper Interests argue that BNSF has not proven that coal dust is worse for ballast integrity than other foulants, <sup>17</sup> that the amount of coal dust in the ballast varies throughout the PRB, and that more study is needed to fully understand the extent of the problem. Based on its own studies, however, USDOT concluded that "[c]oal dust is a particularly harmful ballast contaminant that requires frequent remedial action." <sup>18</sup>

We conclude that coal dust is a particularly harmful contaminant of ballast that requires corrective action. We give significant weight to USDOT's conclusion, based on Federal Railroad Administration (FRA) research, that coal dust interferes with track stability to a much greater extent than other contaminants present in the PRB. Unlike some other foulants, coal dust is not necessarily visible prior to a track failure, and coal dust's high volume relative to its weight and high moisture-absorbing capacity make it a unique problem. Even if the amount of coal dust varies throughout the PRB, that does not change its basic character as a ballast foulant.

BNSF asserts that the 2005 derailments were attributable to the combination of excessive precipitation and high levels of coal dust in the ballast. The Shipper Interests argue that BNSF has not proved that coal dust caused the 2005 derailments. They claim that a unique combination of site characteristics other than coal dust was the cause. Shipper Interests note that both derailment sites had what they describe as "documented maintenance failures," and argue that, according to FRA reports, the derailments were caused by defective construction or inadequate maintenance, as well as inadequate track inspection. The Shipper Interests also cite expert testimony and internal BNSF and UP documents to support their claims.

We do not need to reach a definitive conclusion about the extent of coal dust's role in the derailments to decide that coal dust is a harmful ballast foulant. We find that the studies done by FRA and BNSF provide sufficient evidence for our conclusions about coal dust. Although the FRA's conclusions in specific accident reports related to the 2005 derailments (and completed prior to USDOT's filings<sup>24</sup> in this proceeding) do not refer to coal dust, our finding that coal dust poses a unique problem to safe and efficient rail operations is supported by USDOT's more

<sup>&</sup>lt;sup>17</sup> WCTL/CCCS Opening 20.

<sup>&</sup>lt;sup>18</sup> USDOT Rebuttal 7.

<sup>&</sup>lt;sup>19</sup> USDOT Rebuttal 3.

<sup>&</sup>lt;sup>20</sup> BNSF Opening Statement, Tutumluer V.S.; BNSF Rebuttal, Tutumluer V.S.

<sup>&</sup>lt;sup>21</sup> BNSF Rebuttal 15-16; UP Reply 14.

<sup>&</sup>lt;sup>22</sup> AECC Opening 14.

<sup>&</sup>lt;sup>23</sup> Id.

<sup>&</sup>lt;sup>24</sup> The FRA is an agency within USDOT.

recent and generally applicable conclusions about coal dust. Whether or not coal dust contamination of ballast was a substantial factor in the 2005 derailments, the weight of the evidence shows that coal dust is a harmful foulant that could contribute to future accidents by destabilizing tracks. Moreover, we conclude that coal dust exacerbates issues associated with maintenance. Therefore, the goal of reducing coal dust and its impact has a solid foundation.

# 2. BNSF may address coal loss from open-top cars.

Two types of cars are used in the PRB: gondolas and bottom-dump cars.<sup>25</sup> Both have open tops. Gondolas have closed bottoms; bottom-dump cars have gates or doors on the bottoms for releasing coal.

The Shipper Interests argue that BNSF's tariff is unreasonable because BNSF has not shown that emissions from the tops of cars are the principal source of coal dust. They assert that the logical source for most of the coal dust in the ballast is the bottom of bottom-dump cars, <sup>26</sup> rather than the tops of cars and argue that, contrary to BNSF's claims, BNSF has not proven that more coal is lost from the tops of cars than from the bottoms of bottom-dump cars. <sup>27</sup> BNSF responds that it is indisputable that open-top cars are a major source of coal dust. BNSF states that fact has been recognized elsewhere, including the state of Virginia, and the nations of Australia, Canada, and Columbia. <sup>28</sup> It points out that only a small percentage of coal traffic moves in bottom-dump cars, and UP points out that all cars, including bottom-dump cars, have open tops. <sup>29</sup> Moreover, both BNSF and UP have taken steps to preclude coal loss from bottom-dump cars. Both railroads repaired the bottom-dump cars they own to reduce potential coal dust loss, <sup>30</sup> and the railroads conduct multiple inspections during a movement and remove leaking or damaged bottom-dump cars. <sup>31</sup>

The possibility that some coal is lost through bottom-dump cars does not negate BNSF's general right to address loss from open-top cars. Though there is dispute as to the amount of coal that is lost from the tops of cars, the Shipper Interests have not shown that loss from the open tops of cars is not a significant source of coal dust emissions that reasonably needs reduction. BNSF has acted to curtail loss in bottom-dump cars, and it may also take reasonable steps to address loss from the open tops of cars. Given that all cars used in the PRB have open tops, addressing loss from the tops of cars is reasonable.

<sup>&</sup>lt;sup>25</sup> UP Reply 10.

<sup>&</sup>lt;sup>26</sup> WCTL/CCCS Opening 24, citing testimony by Dr. Emmitt in <u>Union Pac. v. Entergy</u>, Case No. CV 2006-2711 (Circuit Court of Pulasky County, Ark., Sixth Division).

<sup>&</sup>lt;sup>27</sup> WCTL/CCCS Opening 23-24.

<sup>&</sup>lt;sup>28</sup> BNSF Reply 7-8.

<sup>&</sup>lt;sup>29</sup> BNSF Reply 10; UP Reply 10.

BNSF Opening, VanHook V.S. 11; UP Reply, Beck V.S. 7-8.

<sup>&</sup>lt;sup>31</sup> BNSF Opening, VanHook V.S. 11, UP Reply, Beck V.S. 6-7.

## 3. BNSF's conclusion that containment is superior to maintenance alone is reasonable.

The Shipper Interests claim that the lines can be operated safely and efficiently without the proposed tariff items if BNSF continues the current level of maintenance, which they argue is appropriate to the current traffic level on the lines. The Shipper Interests argue that implicit in a carrier's obligation under 49 U.S.C. § 11101 to provide service upon reasonable request is a duty on the part of the railroad to maintain the rail line. The Coal Carriers respond that it is not feasible to contain the coal dust problem through maintenance alone, and that the associated service interruptions on limited PRB rail capacity are unacceptable. The Shipper Interests claim that the Coal Carriers' argument that the current maintenance schedule is not sustainable assumes limitations that do not exist on maintenance resources, and the Shipper Interests assert that the fact that the Coal Carriers currently are doing the necessary level of maintenance establishes that it can be done. As traffic volume increases, the Shipper Interests assert, maintenance must increase at the same time. They claim, however, that while maintenance expenses grew between 2005 and 2008, the Coal Carriers' revenue grew enough to cover the increased maintenance expenses. The Shipper Interests also express concern that implementation of the tariff could prompt BNSF to reduce maintenance below acceptable levels.

We find BNSF's assertion that coal dust containment efforts that are appropriately calculated to produce reliable and efficient service is reasonable. BNSF's current, augmented maintenance plan for the PRB includes more frequent track inspection, undercutting, shoulder ballast cleaning, and mechanical removal using methods such as vacuum trucks. These activities consume resources and decrease capacity. The Shipper Interests' argument that increased revenues have covered the increased costs of maintenance, even if true, does not mean that containment is not a reasonable practice.

Moreover, to the extent that coal dust poses a risk of harm to the environment, containment is the only way to protect the environment and communities along the right of way. Maintenance only addresses the harm to the ballast and does nothing to address the harms to neighboring streams, people, and communities. Furthermore, some coal dust removed in the rail

<sup>&</sup>lt;sup>32</sup> AECC Opening 5, citing R.R. Ventures, Inc.—Aban. Exemption—Between Youngstown, Ohio, and Darlington, Pa., In Mahoning and Columbiana Counties, Ohio and Beaver County, Pa., AB 556 (Sub-No. 2X) (STB Served Apr. 28, 2008); Bhd. of Locomotive Eng'rs v. Staten Island Rapid Transit Operating Auth., 360 I.C.C. 464 (1979).

<sup>&</sup>lt;sup>33</sup> BNSF Opening, Sloggett V.S. 6-9. BNSF estimates that "as much as 80 percent of the loaders and the maintenance windows on the Powder River Basin are driven by coal dust." Hearing Tr., 48, July 29, 2010.

<sup>&</sup>lt;sup>34</sup> BNSF Opening, Sloggett V.S. 6-10.

bed maintenance process may also find its way back into the environment, either nearby or at disposal sites.<sup>35</sup>

#### III. BNSF'S TARIFF PROVISIONS ARE UNREASONABLE

Recognizing the general findings above, the Board has been asked to declare whether this particular tariff is a reasonable way to address the coal dust problem. The Board's role under the Interstate Commerce Act, as amended, is not to micromanage the railroad industry, and we conclude that carriers have a general right to establish reasonable coal loading requirements. As discussed below, however, the tariff at issue here is not reasonable under § 10702.

# 1. <u>Carriers can require reasonable loading requirements</u>.

The Shipper Interests argue that historically they have shipped their coal in open-top cars without any requirement for coal dust suppression. They describe the tariff as "unprecedented,"<sup>36</sup> and argue that BNSF has not justified a departure from the long-standing practice. BNSF responds that long-standing case law supports BNSF's authority to adopt the tariff. BNSF, supported by other carriers, argues that a beneficial change in technology should not be hampered by past practice, and that each proposed practice should be assessed on its own merits. USDOT agrees, stating "the fact that railroads have not previously attempted to use tariff rules to hold shippers responsible amounts to inertia, not a reason to hold BNSF's current rule unreasonable."<sup>38</sup>

BNSF argues that there is clear precedent allowing carriers to adopt operating rules similar to those in the tariff at issue, stating that carriers have "broad authority to establish operating rules [including] the power to set reasonable standards for packing and loading freight." The Shipper Interests assert that the cases BNSF cites to support its tariff provide little, if any, substantive discussion of loading requirements, and that the Board should focus on a fact-specific analysis of this case. The Shipper Interests argue that Chicago Board of Trade, the case on which BNSF principally relies, is distinguishable on several grounds. Chicago Board of Trade involved the requirement, adopted by several western railroads, for bulk shippers of grain to install or pay for the installation of grain doors on cars used for shipping bulk grain. They point out that the shippers in that case did not dispute the need for grain doors; the only issue was whether the shipper or the railroad should pay for their installation. The Shipper Interests assert

<sup>&</sup>lt;sup>35</sup> BNSF states that much of the removed coal dust is hauled away for disposal, and that in a specific effort to remove coal dust around stream beds and water ways along the joint line in 2008, it removed 300 car loads of coal. Hearing Tr., 115-16, July 29, 2010.

<sup>&</sup>lt;sup>36</sup> AECC Reply 4.

<sup>&</sup>lt;sup>37</sup> CSXT Reply 4-5; BNSF Rebuttal 8.

<sup>&</sup>lt;sup>38</sup> USDOT Rebuttal 4.

<sup>&</sup>lt;sup>39</sup> BNSF Opening 18, citing, among other cases, <u>Bd. of Trade of City of Chi. v. Abilene</u> & S. Ry. (Chicago Board of Trade), 220 I.C.C. 753 (1937).

that here, in contrast, BNSF has instituted the tariff in order to reduce its own maintenance costs and that the coal dust containment measures are not needed or wanted by coal shippers. The Shipper Interests also argue that in <a href="Chicago Board of Trade">Chicago Board of Trade</a>, the Interstate Commerce Commission found that the installation of grain doors was "an incident of loading bulk grain," for which the shipper was responsible for loading, but that here, coal dust loss is not an incident of loading, but an incident of transportation.

The Shipper Interests claim that shippers' responsibility is to load their cars "in a safe manner" for transportation, and that rail carriers have the responsibility to transport the goods in a safe manner. The Shipper Interests claim that the way BNSF operates its trains, changes in track modulus, and poor maintenance of the line increase coal dust dispersion. BNSF responds that it is the shippers' responsibility to ensure that their freight remains in the loaded cars. USDOT notes that shippers of other commodities "take steps to ensure that their property remains intact in or on rail cars during transport" and that "[t]here is no apparent reason why coal should be any different." However, USDOT then argues that, if carriers are imposing loading requirements, "fairness . . . might favor shifting of or sharing in responsibility for the coal dust emissions that inevitably follow in the real-world motions of rail carriage."

We conclude that BNSF and other coal carriers have the right to establish coal loading requirements, subject to the reasonableness requirement of 49 U.S.C. § 10702. Carriers regularly establish loading requirements for various commodities, and the Shipper Interests cite no case law and give no reason why carriers should not be able to change their rules in response to changing circumstances, such as here, where the problem of coal dust became apparent after years of increasingly heavy traffic.

# 2. BNSF's emission standards are unreasonable.

Notwithstanding the above, the tariff at issue here is not reasonable under § 10702 and cannot be enforced. The tariff provisions require shippers to load coal in a particular profile that is achieved using a modified loading chute in order to limit coal dust emissions (i.e., a

<sup>&</sup>lt;sup>40</sup> WCTL/CCCS Reply 26, citing <u>Waste Material Dealers Ass'n of Ark. v. Chi., Rock Island & Pac. Ry.</u>, 226 I.C.C. 683, 688 (1938) ("It is the right and duty of the railroads to refuse to accept shipments that are not loaded in a safe manner."); <u>Consignees' Obligation to Unload Rail Cars in Compliance with Carriers' Published Tariffs</u>, 340 I.C.C. 405, 410 (1972) ("carriers may refuse for shipment articles tendered for transportation, unless in such condition and so prepared for shipment as to render the transportation thereof reasonably safe and practicable.").

<sup>&</sup>lt;sup>41</sup> WCTL/CCCS Reply 26, citing 49 U.S.C. § 11706.

<sup>&</sup>lt;sup>42</sup> AECC Reply 26, AECC Rebuttal 17, Nelson V.S. 6-7.

<sup>&</sup>lt;sup>43</sup> BNSF Rebuttal 7.

<sup>44</sup> USDOT Reply 5.

<sup>&</sup>lt;sup>45</sup> USDOT Rebuttal 5, n. 4.

performance standard). This profile is designed to reduce coal dust emission by reducing the effect of air currents on loaded coal. The practice has essentially been adopted and employed, apparently almost universally, for Powder River Basin coal loadings, and the efficacy of that process for mitigating dust dispersal, at least partially, has not been challenged here. BNSF acknowledges, however, that profiling alone is not sufficient to meet the emission limitations in BNSF's tariff. BNSF contends that its testing has shown that spraying a chemical surfactant on the tops of loaded cars is effective in reducing emissions to an acceptable level. No other containment methods seem to be under serious consideration for commercial use in the short term. The Shipper Interests argue that the tariff is unreasonable because, even if they use surfactants and profiling together, their shipments may still violate the tariff provisions. They claim that no study has shown that the combination will allow them to meet the emission standards. BNSF claims that its ongoing trial of surfactants and other compliance measures will address this problem. The Shipper Interests note, however, that at the time of filing of rebuttal statements, BNSF had not produced any evidence of a proven compliance method.

A coal dust emission requirement that a shipper may be unable to meet, even if the currently accepted methods of coal dust suppression are employed, is problematic. A reasonable rule would provide certainty to the shippers, such as that in <a href="Chicago Board of Trade">Chicago Board of Trade</a>. There, shippers were required to take steps to address an identified problem, but once they had loaded their cars correctly, they could be certain that the carrier would move their commodity without penalty. The Board does not want to foreclose the use of emission standards in the future, but given the circumstances, we find BNSF's standards are unreasonable.

At the hearing, BNSF stated it was willing to amend its tariff to provide an activity-based safe harbor, <sup>51</sup> but as of yet, has failed to do so. Under a safe harbor, shippers that use an approved emission control method contained in the tariff would be considered in compliance with the tariff, regardless of monitoring system results. A cost effective safe harbor could go a long way to address our concern that the current tariff does not provide shippers with a certain method of compliance that does not depend on the monitoring system.

The Board is also concerned with technical aspects of BNSF's monitoring system and emission standards. The Shipper Interests claim that the monitoring system produces variable and unreliable results. For example, the Shipper Interests contend that the monitoring system

<sup>&</sup>lt;sup>46</sup> BNSF Opening 13-14.

<sup>&</sup>lt;sup>47</sup> BNSF Opening 15.

<sup>&</sup>lt;sup>48</sup> NCTA Opening 10-11.

<sup>&</sup>lt;sup>49</sup> BNSF Reply 34.

<sup>&</sup>lt;sup>50</sup> WCTL/CCCS Rebuttal 60.

<sup>&</sup>lt;sup>51</sup> Hearing Tr., 85-88, July 29, 2010. A safe harbor was also discussed at Hearing Tr., 213-16, 298-302, 304-06, July 29, 2010.

does not account for the fact that dust dispersion is sporadic because of factors like wind speed,<sup>52</sup> and they emphasize that when BNSF placed two E-Samplers next to each other for testing, one monitor had 31% higher readings than the other.<sup>53</sup> BNSF replies that the emission standards and monitoring system are based on sound science,<sup>54</sup> arguing that its emission limits account for variability in readings.<sup>55</sup>

The Shipper Interests also claim that the monitors do not measure coal dust deposited on the tracks; instead, the monitors measure a variety of particles in the air many feet from the tracks. <sup>56</sup> BNSF replies that the measurements are indicative of coal dust deposited on the tracks. <sup>57</sup>

The Shipper Interests assert that BNSF violated Board rules of practice when it did not provide the computer program it uses to convert the E-Sampler data into IDV.2 values, and that the "detailed logic and assumptions" that BNSF states it provided are insufficient for a full analysis. The Shipper Interests contend that the statistical analysis BNSF used to develop the IDV.2 standards is flawed and that BNSF was unable to find a third party to validate the methodology. The Shipper Interests dispute BNSF's claim that the Board does not need to examine the measurement system and standards, claiming that the Board cannot find that the tariff is reasonable without reviewing the technical issues. BNSF responds that these arguments are without merit, stating that it has made available the logic and assumptions used to produce its IDV.2 calculations. BNSF argues that access to proprietary codes is unnecessary to understand the IDV.2 calculations.

The Board shares many of the Shipper Interests' concerns regarding the methods of effective compliance and the proprietary IDV.2 measurement system. Shippers cannot be certain of effective compliance with this tariff. After the loading has taken place, the shipment is under the control of the railroad and subject to the vagaries of wind, weather, train speed, and track

<sup>&</sup>lt;sup>52</sup> AECC Opening 20.

<sup>&</sup>lt;sup>53</sup> WCTL/CCCS Opening 28.

<sup>&</sup>lt;sup>54</sup> BNSF Reply 20-28.

<sup>&</sup>lt;sup>55</sup> BNSF Reply 25.

<sup>&</sup>lt;sup>56</sup> WCTL/CCCS Rebuttal 32-36.

<sup>&</sup>lt;sup>57</sup> BNSF Reply 21-22.

<sup>&</sup>lt;sup>58</sup> WCTL/CCCS Rebuttal 45-6.

<sup>&</sup>lt;sup>59</sup> WCTL/CCCS Opening 32.

<sup>60</sup> WCTL/CCCS Rebuttal 31.

<sup>&</sup>lt;sup>61</sup> BNSF Reply 26-27. One shipper, Ameren, complains that BNSF refuses to provide IDV.2 data on all Ameren-related trains, which makes it difficult for Ameren to make informed conclusions about the effectiveness of suppression methods it is using. Ameren Opening 6; Ameren Rebuttal 6.

conditions. Once the movement is in transit, there is nothing the shipper can do to comply. Clearly, this suggests that the proper place to focus shipper efforts to minimize coal dust emissions must be at the load-out. BNSF implies that, if shippers adopt profile grooming and use surfactants, they can achieve compliance with BNSF's proprietary emission standards. But, lacking some sort of safe harbor provision, no shipper can ever be confident that any particular movement it tenders will be in compliance.

#### **CONCLUSION**

While the goal of minimizing the release of coal dust during rail transport is a reasonable objective for railroads and coal shippers to pursue, the challenged tariff in this case simply creates too much uncertainty to be deemed a reasonable practice. Under the challenged tariff, the railroad would accept rail cars loaded with coal and then inform coal shippers at a later date whether and to what extent coal dust was released during transport. In addition, the tariff does not explain what consequences coal shippers would face if they are found to have tendered loaded coal cars to the railroad that subsequently released coal dust during transport. The challenged tariff also does not acknowledge any steps that, if taken by a shipper before coal cars are tendered to the railroad, would guarantee that the shipper would be deemed in compliance with the tariff.

Further, the railroad's trackside coal dust emission monitoring system raises additional questions. Shippers have raised legitimate concerns about their lack of access to equipment testing and other technical data before being asked to accept the equipment's measurements and the subsequent liability that would be triggered by those measurements. Similarly, shippers have legitimately questioned the ability of the monitoring equipment to accurately assign responsibility for a release among the railroad, the shipper, third parties or natural causes such as severe weather and topography.

Rather than using this decision to define a specific, government-approved approach to the problem at hand, we expect that railroads and their customers will collaborate to develop a solution that guarantees that loaded rail cars are fit for safe travel, while also ensuring that commodity spillage during transport is minimized. Clearly, this is a problem that must be addressed. We have been persuaded by the record evidence that coal dust is a pernicious ballast foulant. It is inefficient for railroads to move cars loaded in a manner that routinely results in the release of coal dust during transport. Moreover, once a railroad accepts a loaded car, it bears responsibility for transporting the car in a manner that avoids releasing or spilling the shipment. In light of the importance of the coal transportation supply chain to the national and world economy, we are confident that railroads and coal shippers can develop reasonable solutions to the problems presented in this case.

#### **ANCILLARY ISSUES**

## Testimony of Gregory Fox

On August 4, 2010, WCTL, CCCS, AECC, APPA, Edison, and NRECA (Movants) filed a joint motion to strike a portion of the July 29, 2010 hearing testimony of Mr. Fox.<sup>62</sup> The Movants claim that portion of Mr. Fox's testimony is new evidence because it included statements about tests of surfactants that were being conducted at the time of the hearing. The Board did not consider Mr. Fox's oral argument statements regarding surfactants in reaching its decision. The motion is denied as moot.

## Other Issues

WCTL and CCCS request that the Board hold that BNSF cannot enforce its operating rules governing the application of the tariff items to UP and its shippers, unless and until the Board first permits shippers to file comments, in a separate proceeding, concerning the legality of BNSF's actions under the Joint Line Agreement, and the Board issues a decision on those matters. CSXT argues that carriers must be allowed to institute operational rules and practices and asks that the Board reject any shipper suggestion that a rule must be determined reasonable before it goes into effect. The Board agrees with CSXT. Carriers are permitted to institute operational rules and practices without receiving prior Board approval. Shippers may, to the degree that they deem it warranted, challenge the reasonableness of any practice and petition the Board to enjoin the practice under 49 U.S.C. § 721(b)(4), pending the Board's reasonableness ruling.

Coal Shippers request that the Board make public UP and BNSF pleadings filed as confidential or highly confidential. UP argues that Coal Shippers have provided no reason for these documents to be made public, and that these documents have been treated confidentially throughout this proceeding and previous civil litigation without objection. We find no valid reason to make public UP and BNSF confidential and highly confidential pleadings. Redacted versions of these documents are available for public viewing.

Finally, there are multiple arguments that the Board does not address given our finding that the tariff is unreasonable. WCTL and CCCS request in their Rebuttal that the Board find the coal profiling standard in the tariff to be unreasonable, and that the Board rewrite those sections

The motion requests that the Board strike the portion of Mr. Fox's testimony that appears at 02:10:17 through 02:10:43 in part 2 of the hearing video. A hearing transcript was not available when the motion was filed. The hearing video is available at the Board's website, http://www.stb.dot.gov/stb/index.html (follow "Hearings/Meetings Archives" hyperlink; then follow "07/29/2010" hyperlink). The testimony at issue appears at Hearing Tr., 280, lines 5-13, July 29, 2010.

<sup>&</sup>lt;sup>63</sup> CSXT Reply 4-5.

<sup>&</sup>lt;sup>64</sup> UP Rebuttal 35.

of the tariff items. The Shipper Interests request that if the Board approves the tariff, it also should require BNSF to publish an allowance tariff containing a schedule of reasonable sums BNSF would pay coal shippers to reimburse them for reasonable compliance expenses. Similarly, Ameren requests that if the Board finds the tariff items reasonable, it hold BNSF responsible for any consequences of surfactant spraying. Finally, TMPA states that it is currently paying transportation rates to BNSF pursuant to a 20-year Board prescribed rate. TMPA states that the cost for coal dust maintenance is included in the prescribed rate, and that it therefore should not be responsible for any costs associated with compliance with the tariff at issue. TMPA asks the Board for a statement in this proceeding to that effect. We need not address any of these arguments because of our finding that the tariff is unreasonable.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

## It is ordered:

- 1. AECC's petition for a declaratory order is granted. We find that BNSF's Tariff 6041-B Items 100 and 101 constitute an unreasonable practice under 49 U.S.C. § 10702.
- 2. The joint motion to strike a portion of the July 29, 2010 hearing testimony of Mr. Fox is denied as moot.
  - 3. This decision is effective on its service date.

By the Board, Chairman Elliott, Vice Chairman Nottingham, and Commissioner Mulvey.

<sup>&</sup>lt;sup>65</sup> The Board set the rate in <u>Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry.</u>, 6 S.T.B. 573 (2003).