

SURFACE TRANSPORTATION BOARD

CORRECTED DECISION\*

Docket No. FD 35557

REASONABLENESS OF BNSF RAILWAY COMPANY COAL DUST MITIGATION  
TARIFF PROVISIONS

Digest:<sup>1</sup> The Board started this proceeding to give coal shippers the opportunity to challenge the “safe harbor” provision of a tariff change by the BNSF Railway Company (BNSF), which requires coal shippers to reduce the amount of coal dust lost from railcars during transit from mines in the Powder River Basin. The challenged BNSF safe harbor provision states that shippers will be in full compliance with coal loading requirements if they apply one of BNSF’s five approved suppression methods to their railcars after loading them pursuant to the profiling requirement. Alternatively, shippers may propose equally effective coal suppression methods for BNSF’s approval.

The Board finds the coal shippers challenging the safe harbor have not shown that the coal dust suppression methods set forth in the tariff are unreasonable. However, the Board finds unenforceable one provision regarding shipper liability for adverse impacts from any approved suppression methods because the language is overly broad and ambiguous.

Decided: December 11, 2013

Various coal shipper parties request that we find a BNSF Railway Company (BNSF) tariff that requires shippers to take specific loading measures to limit coal dust loss from railcars loaded at mines in the Powder River Basin (PRB) to be an unreasonable practice under 49 U.S.C. § 10702(2). In this decision, we find that the safe harbor provision in the tariff, with the exception of one sentence referred to as the “liability provision,” is not an unreasonable

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\* This corrected decision reflects the notice issued December 17, 2013, which revised a citation on page 30 of the decision.

<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. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

practice.<sup>2</sup> We find that the liability provision is an unreasonable practice and must be removed from the tariff.

## BACKGROUND

In a prior proceeding, the Board instituted a declaratory order proceeding in December 2009 to consider whether provisions of a BNSF tariff requiring shippers to limit the emission of coal dust from railcars was an unreasonable practice. Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305 (STB served Dec. 1, 2009).<sup>3</sup> In March 2011, the Board issued a decision in that proceeding finding that coal dust emissions from open-top railcars are fouling the ballast and that BNSF may take reasonable steps to suppress these coal dust emissions. Ark. Elec. Coop. Corp.—Pet. for Declaratory Order (Coal Dust I), FD 35305, slip op. at 6-11 (STB served Mar. 3, 2011). Notwithstanding, the Board also found that the tariff, when considered as a whole, was not reasonable and, therefore, violated 49 U.S.C. § 10702. Coal Dust I, slip op. at 11-14. In particular, the Board found it to be a problem that, under the tariff as drafted, shippers would not know whether their railcars were in compliance with BNSF’s loading requirements even if they employed commercially accepted methods of coal dust suppression. Id. at 12. The Board observed that a cost-effective safe harbor provision (i.e., specific coal dust suppression measures that would constitute compliance with the tariff) would significantly alleviate its concerns. Id.

On July 14, 2011, BNSF issued a revision to its tariff (Price List 6041-B Item 100),<sup>4</sup> which made several changes to the requirements regarding the control of coal dust emissions from trains loaded at mines in the PRB. First, BNSF changed the measurement standard from a proprietary methodology that the Board questioned in Coal Dust I to a requirement that shippers “take measures to load coal in such a way that any loss in transit of coal dust from the shipper’s loaded coal cars will be reduced by at least 85 percent as compared to loss in transit of coal dust

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<sup>2</sup> The parties designated certain information in this decision as confidential or highly confidential. While we attempt to avoid references to confidential or highly confidential information in Board decisions, the Board reserves the right to rely upon and disclose such information in decisions when necessary. In this case, we determined that we could not present our findings with respect to issues in this case without disclosing certain information.

<sup>3</sup> Notice of the decision was published in the Federal Register on December 4, 2009.

<sup>4</sup> BNSF Opening 9. After July 14, 2011, BNSF made various revisions to the tariff and issued the revised tariff under consideration here on September 19, 2011 and September 26, 2013; the revisions after July 14, 2011, appear to consist of changes to the specific chemical suppression methods shippers may use to comply with the tariff. See Western Coal Traffic League (WCTL), American Public Power Association (APPA), Edison Electric Institute (EEI), and the National Rural Electric Cooperative Association (NRECA) (collectively, Coal Shippers) Opening, Ex. 1 (including several versions of the tariff issued after July 14, 2011); BNSF Opening, Ex. 1 (a version of the tariff issued partially on Sept. 19, 2011 and partially on Sept. 26, 2011).

from coal cars where no remedial measures have been taken.”<sup>5</sup> Second, BNSF added a “safe harbor” provision (Item 100, Sections 3.A and 3.B) under which shippers would be in compliance with the tariff regardless of actual coal dust release. To come within the safe harbor, shippers must apply one of BNSF’s five approved suppression methods, consisting of application of certain topper agents<sup>6</sup> to their cars after loading them pursuant to the tariff’s profiling requirement.<sup>7</sup> Alternatively, shippers may submit a different suppression method for approval by BNSF for inclusion in the safe harbor. The request must include evidence showing that the alternative method reduces coal dust emissions by at least 85%. Third, BNSF added a liability provision, which provides that “topper agents, devices or appurtenances” used by shippers or their mine agents to control the release of coal dust “shall not adversely impact railroad employees, property, locomotives or owned cars” (Item 100, Section 4).<sup>8</sup>

Under the revised tariff, shippers were to begin taking compliance measures by October 1, 2011 (Item 100, Section 2). In addition, shippers were to provide BNSF with written notice of their compliance efforts at least 30 days before loading cars for shipment by BNSF (Item 100, Section 2).

On August 12, 2011, WCTL filed a petition requesting that the Board reopen the Coal Dust I proceeding, institute mediation, and stay or enjoin the effective date of the new tariff pending Board-supervised mediation. On August 31, 2011, the Board denied the injunction request. Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305 (STB served Aug. 31, 2011).

On November 22, 2011, the Board issued a decision that denied the requests to reopen the Coal Dust I proceeding and order mediation, but instituted this proceeding as a declaratory order proceeding under 49 U.S.C. § 721 and 5 U.S.C. § 554(e), to consider the reasonableness of the safe harbor provision in the new tariff. Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305 et al. (STB served Nov. 22, 2011). The Board stated that this proceeding would allow parties to address issues related to the reasonableness of the safe harbor provision, such as the absence of penalties for noncompliance, the lack of cost sharing, and shipper liability associated with the use of the BNSF-approved topper agents. Id. at 4 n.5.

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<sup>5</sup> BNSF Opening, Ex. 1 at 3.

<sup>6</sup> BNSF refers to five approved topper agents throughout its filings in this case, but it explains that one approved agent may be applied either in concentrate or mixed with water. BNSF Opening, V.S. Bobb 4. See also BNSF Opening, Ex. 1 at 5.

<sup>7</sup> In the tariff, BNSF requires that coal dust releases be partially reduced by loading coal cars with a modified loading chute that grooms the top of the coal load into a “bread loaf” shape, a process the parties call profiling. BNSF Opening, Ex. 1 at 3-4.

<sup>8</sup> The liability provision on its face applies to the approved safe harbor coal dust mitigation measures and to any methods that may be approved in the future. As discussed later in this decision, we find that the liability provision is unreasonable.

Pursuant to a revised procedural schedule adopted by the Board by decision served July 31, 2012,<sup>9</sup> the following parties filed opening evidence and arguments on October 1, 2012:<sup>10</sup> Arkansas Electric Cooperative Corporation (AECC), BNSF, the National Coal Transportation Association (NCTA), Union Electric Company D/B/A Ameren Missouri (Ameren Missouri), Union Pacific Railroad Company (UP), and the United States Department of Transportation (USDOT). Coal Shippers made a joint filing. On October 18, 2012, AECC requested leave to file a supplement to the appendix of its opening filing and submitted that supplement.<sup>11</sup>

On November 15, 2012, the following parties filed reply evidence and arguments: AECC, Ameren Missouri, BNSF, UP, and Coal Shippers. On December 17, 2012, AECC, Ameren Missouri, BNSF, UP, USDOT, and Coal Shippers filed rebuttal evidence and arguments.

### DISCUSSION AND CONCLUSIONS

Under 5 U.S.C. § 554(e) and 49 U.S.C. § 721, we have discretion to issue a declaratory order to terminate a controversy or remove uncertainty in a matter related to our subject matter jurisdiction. The Board set forth the applicable legal standard in Coal Dust I, slip op. at 4-6. The shippers that are challenging BNSF's tariff under 49 U.S.C. § 10707(2) bear the burden of proving that the tariff is unreasonable.<sup>12</sup> Coal Dust I, slip op. at 4. Whether a particular practice is reasonable depends upon the facts and circumstances of the case. Id. at 5. The Board gauges the reasonableness of a practice by analyzing what it views as the most appropriate factors.<sup>13</sup> The Board's finding in Coal Dust I that the emission of coal dust from open-top railcars in the PRB is a significant problem informs our analysis of the safe harbor's reasonableness. See id. at 6-8.

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<sup>9</sup> The original procedural schedule was extended due to discovery disputes, which involved Board review and disposition. See Reasonableness of BNSF Ry. Coal Dust Mitigation Tariff Provisions, FD 35557 (STB served June 25, 2012) (denying interlocutory appeal of discovery decision by Director, Office of Proceedings).

<sup>10</sup> On July 17, 2012, the Board received a letter from U.S. Representative Rick Larsen (D-Wash.) expressing his support for coal dust reduction measures in the interest of public health.

<sup>11</sup> In the interest of a complete record and because no party will be prejudiced, we will accept the late-filed supplement.

<sup>12</sup> The Board instituted this proceeding in response to the request of coal shippers that the Board reopen the Coal Dust I proceeding. Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305 et al. (STB served Nov. 22, 2011).

<sup>13</sup> Id. The Board concluded in Coal Dust I, slip op. at 5, that requiring BNSF to support the tariff change with a cost benefit analysis did not fit the circumstances and the available evidence.

Whether The Board's Coal Dust I Findings Should Be Reopened

The Board instituted this proceeding to give shippers the opportunity to challenge the reasonableness of the safe harbor adopted by BNSF in revised Item 100. In so doing, we did not reopen for de novo review the findings in Coal Dust I that coal dust emissions from open-top railcars are fouling the ballast and that BNSF may take reasonable steps to suppress these coal dust emissions. AECC and Coal Shippers effectively ask that we reopen Coal Dust I by arguing that the Board's fundamental findings in Coal Dust I were wrong.<sup>14</sup> Reopening requires a showing of material error, changed circumstances, or new evidence that causes us to reconsider the Board's previous conclusions. 49 U.S.C. § 722(c); 49 C.F.R. § 1115.4; see also Middletown & N.J. R.R.—Lease and Operation Exemption—Norfolk S. Ry., FD 35412, slip op. at 3 (STB served Mar. 27, 2013). AECC and Coal Shippers<sup>15</sup> have not met this standard for reopening the Board's Coal Dust I findings.

AECC disputes the Board's finding in Coal Dust I, slip op. at 7, "that coal dust is a particularly harmful contaminant of ballast that requires corrective action." AECC argues that a BNSF witness in the previous proceeding, Dr. Erol Tutumluer, who testified in Coal Dust I that coal dust was more harmful than other ballast foulants, has changed his position and now considers clay to be the source of instability.<sup>16</sup> Coal Shippers and AECC also argue that the Board should not have relied on USDOT's conclusions about the harmful effects of coal dust on ballast because USDOT cited studies that did not involve coal dust.<sup>17</sup>

BNSF, UP, and USDOT argue that the Board should not reconsider its conclusion about coal dust's harms. BNSF and UP argue that Dr. Tutumluer has not retracted his conclusion about coal dust and has made further statements supporting and affirming the evidence he submitted in the Coal Dust I proceeding.<sup>18</sup> BNSF argues that USDOT's conclusion about coal dust's harmful effects on ballast integrity was well-supported, citing witness testimony from the Coal Dust I hearing.<sup>19</sup> BNSF cites various sources that it claims support the conclusion that coal

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<sup>14</sup> See, e.g., AECC Opening 7-12, V.S. Nelson 30-31.

<sup>15</sup> Coal Shippers state that they disagree with the Board's Coal Dust I analysis to the extent that it found BNSF could pursue containment rather than maintenance to alleviate coal dust loss, and Coal Shippers incorporate WCTL's filings from the Coal Dust I proceeding by reference. See Coal Shippers Reply 25.

<sup>16</sup> AECC Opening, V.S. Nelson 30-31; AECC Reply 22; AECC Rebuttal 13.

<sup>17</sup> AECC Reply 19-22; AECC Rebuttal 14; Coal Shippers Reply 25 n.84. Coal Shippers also argue that USDOT's evidence was not proper rebuttal. Coal Shippers Reply 25 n.84. However, they waived that argument in Coal Dust I by not moving to strike the material they now claim was improper or otherwise seeking an opportunity to respond.

<sup>18</sup> BNSF Reply 16 n.8; BNSF Rebuttal 6 n.6; UP Reply 4 n.8.

<sup>19</sup> BNSF Rebuttal 6.

dust is a particularly harmful ballast foulant.<sup>20</sup> USDOT affirms its prior conclusion that coal dust threatens rail safety more than other foulants<sup>21</sup> and argues that the Board's conclusion about coal dust was supported by the record.<sup>22</sup> BNSF and UP argue that USDOT's position is well supported by witness testimony<sup>23</sup> and scientific studies and sources.<sup>24</sup>

AECC and Coal Shippers have offered no basis to reconsider the Board's prior finding. In Coal Dust I, slip op. at 7, the Board found that "[u]nlike 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." AECC has not refuted this finding. And contrary to AECC's claim,<sup>25</sup> Dr. Tutumluer did not change his opinion that coal dust threatens ballast integrity. The documents submitted by AECC show that Dr. Tutumluer studied the interaction between coal dust and clay soil.<sup>26</sup> He stated that coal dust is a moisture-sensitive fouling agent that affects railroad ballast,<sup>27</sup> which is consistent with the Board's conclusion in Coal Dust I, slip op. at 7 ("[C]oal dust's . . . high moisture-absorbing capacity make[s] it a unique problem."). Dr. Tutumluer did not retract his previous conclusions about coal dust's ballast-fouling properties.<sup>28</sup> To the extent that Dr. Tutumluer's research suggests that certain types of soil aggravate the ballast problems caused by coal dust, the suggestion does not negate the Board's finding that coal dust emissions were threatening ballast integrity. BNSF cannot change the soil composition along the PRB, but the amount of coal dust emitted from open-top railcars can be reduced.

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<sup>20</sup> Id. at 6 & nn.6-10.

<sup>21</sup> USDOT Opening 4-5; USDOT Rebuttal 2-3.

<sup>22</sup> USDOT Rebuttal 2-4.

<sup>23</sup> BNSF Rebuttal 6; UP Rebuttal 3-4.

<sup>24</sup> BNSF Rebuttal 6 & nn.6, 8-10 (citing, for example, F.N. Okonta, Frictional Resistance of Coal Dust Fouled Uniformly Graded Aggregates, 7 Int'l J. of Physical Sciences, 2960, 2969 (2012); Hai Huang & Erol Tutumluer, Discrete Element Modeling for Fouled Railroad Ballast, 25 Constr. & Bldg. Materials 3306, 3306 (2011); Office of Research & Dev., U.S. Dept. of Transp. Fed. R.R. Admin., Subsurface Evaluation of Ry. Track Using Ground Penetrating Radar (2009)).

<sup>25</sup> See AECC Opening, V.S. Nelson 30-31.

<sup>26</sup> AECC Opening, App. H BNSF Coal Dust II 00305910-11; AECC Supplement to Opening, App. I UP-AECC-00006349-52.

<sup>27</sup> AECC Supplement to Opening, App. I UP-AECC-00006351-52.

<sup>28</sup> See AECC Supplement to Opening, App. I at UP-AECC-00006349-52.

Moreover, the Board's conclusion that coal dust is a harmful ballast foulant was well supported by the entire record in Coal Dust I.<sup>29</sup> The Board explained the effects of ballast fouling and why coal dust in particular is a harmful foulant. Coal Dust I, slip op. at 6-7. In addition, the Board did not err by giving weight to USDOT's conclusion, based on Federal Railroad Administration (FRA) expertise on rail safety, about the harms of coal dust fouling. USDOT's filings from the Coal Dust I proceeding show that it reviewed the parties' evidence,<sup>30</sup> engineering texts, and its own research on the mechanisms of track buckling.<sup>31</sup> USDOT explained its conclusion that coal dust was a particularly harmful ballast foulant based on this review and FRA's general knowledge of track structure and ballast fouling combined with the particular properties of coal dust.<sup>32</sup> In particular, USDOT explained that coal dust "has especially low strength compared to other common fouling agents (like granite or silt or clay) and [coal dust] absorbs water very well."<sup>33</sup> USDOT also noted that, because coal dust has a lower density than most other ballast foulants, "coal dust accelerates the destabilization of ballast much more than other fouling materials . . . ."<sup>34</sup> AECC and Coal Shippers have not refuted USDOT's analysis.

Next, AECC argues that BNSF's operating, maintenance, and construction practices contribute to coal dust loss, and it is therefore BNSF's responsibility to prevent emissions by modifying these practices.<sup>35</sup> BNSF and UP reply that the Board rejected this argument in Coal

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<sup>29</sup> E.g., Coal Dust I, slip op. at 7 (citing BNSF Opening, V.S. Tutumluer, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305; BNSF Rebuttal, V.S. Tutumluer, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305).

<sup>30</sup> See USDOT Reply 2, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305.

<sup>31</sup> See USDOT Rebuttal 2-3, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305.

<sup>32</sup> Id.

<sup>33</sup> Id. at 3.

<sup>34</sup> Id. AECC and Coal Shippers claim that the Board should not have relied on USDOT's opinion because the engineering texts and research by USDOT's Volpe National Transportation Systems Center cited by USDOT in its rebuttal in the Coal Dust I proceeding did not discuss coal dust. USDOT has staff experts in rail ballast and track geometry, and brought one of them, Dr. Sussman, to the Coal Dust I proceeding's oral hearing held July 29, 2010. Oral Argument Tr., 10, July 29, 2010, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305 (available at <http://stb.dot.gov/TransAndStatements.nsf/transcriptsandstatements?openview> (last visited Dec. 13, 2013)). USDOT's opinion that coal dust is a pernicious ballast foulant is based on the physical characteristics of coal dust and its interaction with ballast and rain water. AECC and Coal Shippers have not offered evidence that refutes the engineering and physical facts about coal dust presented by USDOT. The engineering texts submitted by USDOT provide general background on track mechanisms and support USDOT's analysis.

<sup>35</sup> AECC Opening 7-12, V.S. Nelson 13-21; AECC Reply 5-6, 12-13; AECC Rebuttal 3-10, V.S. Nelson 27-32.

Dust I by concluding that BNSF could address coal dust loss through reasonable loading requirements and the issue should not be revisited in this proceeding.<sup>36</sup> USDOT states that “[a]lthough railroads retain the responsibility to ensure that tracks are properly maintained, shippers should be held responsible . . . to ensure that railcars are securely loaded”<sup>37</sup> and emphasizes that this proceeding should focus on the reasonableness of the safe harbor.<sup>38</sup>

AECC has not shown material error, changed circumstances, or new evidence that would cause us to reconsider the Board’s Coal Dust I conclusion that BNSF may establish reasonable loading requirements to reduce coal dust loss, slip op. at 11, or the Board’s finding that BNSF reasonably concluded that calculated containment efforts are superior to maintenance alone, slip op. at 9-10. The Board addressed this issue in Coal Dust I, slip op. at 9-11, by explaining that BNSF may establish loading requirements, notwithstanding AECC’s argument there that operating, maintenance, and construction practices cause coal dust loss and that railroads should be responsible for preventing that loss.<sup>39</sup>

In Coal Dust I, slip op. at 5-6, the shippers’ evidence did not address all the costs of increased maintenance. In this proceeding, shipper parties again ask the Board to consider construction, operations, and maintenance changes as a more efficient alternative to containment. As discussed below, the record in this proceeding also does not contain sufficient evidence to compare the costs of construction, operations, and maintenance changes to the costs of containment. Further, AECC’s evidence does not convince us that there are fixes that BNSF has overlooked that would significantly reduce the emission of coal dust from open-top railcars and make it unreasonable to apply topper agents. Our role is to decide whether the particular approach taken by BNSF to curtail coal dust emissions is unreasonable. We therefore turn to the question of whether BNSF seeks to impose unreasonable loading conditions with this tariff.

#### Whether the “Safe Harbor” Provision Is Unreasonable

The shipper parties argue that the safe harbor is not reasonable because the coal dust suppression measures specified in the tariff do not effectively reduce coal dust emissions, do not provide certainty of compliance to shippers, are unreasonably expensive, and cause environmental and safety harms. We find that the shipper parties have not shown that the safe harbor is unreasonable. Further, we find that BNSF has submitted evidence showing that spraying loaded coal cars with topper agents, combined with load profiling, as required to satisfy the safe harbor provision of the tariff, substantially reduces the emission of coal dust.

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<sup>36</sup> BNSF Reply 13; BNSF Rebuttal 5; UP Reply 5.

<sup>37</sup> USDOT Opening 6.

<sup>38</sup> USDOT Rebuttal 1-2.

<sup>39</sup> AECC Reply 26, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305; AECC Rebuttal 17-18, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305.

Effectiveness of topper agents to reduce coal dust loss. The shipper parties argue that topper agents are not effective in suppressing coal dust emissions from open-top railcars. Coal Shippers argue that topper agents are intended for use on stationary coal piles, and their performance on moving railcars has not been verified.<sup>40</sup> They further argue that this use, for which the topper agents were not designed, can even increase coal dust emissions.<sup>41</sup>

It is generally accepted in the industry that topper agents suppress the emission of coal dust. Topper agents are used in various parts of the world as a coal dust control method, not just on stationary piles of coal, but on moving railcars.<sup>42</sup> The governments of Canada and the State of Virginia have concluded that topper agents effectively control coal dust on moving railcars.<sup>43</sup> Topper agents are also used to control coal dust loss from railcars in Australia, China, Colombia, and in the State of Kentucky.<sup>44</sup> Technical literature dating back to the 1970s states that topper agents applied to railcars for coal dust control are effective.<sup>45</sup> While shippers argue that these studies are irrelevant because they did not consider the specific topper agents approved for the safe harbor, the prior studies regarding application of topper agents are persuasive for the general point that topper agents can be effective for suppressing the dispersion of coal dust from moving railcars. In short, the application of topper agents is a generally accepted approach to controlling coal dust loss from railcars. Although Coal Shippers argue that topper agents are not intended for use on moving railcars, and such use can increase emissions, the test data discussed below provides sufficient evidence for us to find that the application of topper agents combined with load profiling as set forth in the safe harbor is effective.

The Super Trial. We find further that BNSF has provided sufficient evidence—through a series of laboratory and field tests of topper agents and body chemical treatments<sup>46</sup> referred to as

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<sup>40</sup> Coal Shippers Opening 19.

<sup>41</sup> Id.

<sup>42</sup> BNSF Opening, V.S. Carré & Murphy 9-13 (citing, e.g., Environment Canada, Coal Dust Control Recommended Practices for Loading, Unloading and Transporting Coal by Rail, at 11, 21 (1986); QR Network, Coal Dust Management Plan (2010)).

<sup>43</sup> Id. at 11-12.

<sup>44</sup> Id. at 12-13.

<sup>45</sup> Id. at 9-11 (citing, e.g., K.H. Nimerick & G.P Laflin, In-Transit Wind Erosion Losses of Coal and Method of Control, 31 Mining Engineering 1236, 1236-40 (1979); M. Djukic & J.H Planner, Reducing Coal Dust Emission from Wagons, (2011) (available at [http://www.bulk-solids-handling.com/safety\\_environment/emission\\_control/articles/312716/](http://www.bulk-solids-handling.com/safety_environment/emission_control/articles/312716/) (last visited Dec. 13, 2013)).

<sup>46</sup> Body chemical treatments are applied to the coal before the coal is loaded into the railcars. BNSF Opening, V.S. VanHook 8. In contrast, topper agents are topical chemical treatments applied to the coal after the coal is loaded into the railcars. BNSF Opening 15-16.

“the Super Trial”—to validate the inclusion in the safe harbor of specific topper agents for application to loaded coal cars.<sup>47</sup>

The Super Trial included field tests of 115 trains using passive collectors.<sup>48</sup> Half of the cars on a test train were treated with the suppression method being tested, and half of the cars were untreated.<sup>49</sup> Passive collectors were placed on seven of the treated cars and seven of the untreated cars of each train.<sup>50</sup> The devices were removed when the test train reached a certain point, and the collected coal dust was weighed in the field and then in a BNSF laboratory.<sup>51</sup> The amount of coal dust collected from treated and untreated cars was then compared to determine the extent that a particular treatment method reduced the emission of coal dust.<sup>52</sup>

BNSF sought and obtained shipper cooperation for the Super Trial. BNSF states that it invited all of its PRB coal shippers and mines to participate in the Super Trial, that 13 shippers and three coal producers participated by having topper agents tested at four mines, and that other shippers and mines participated by attending meetings and reviewing data.<sup>53</sup> BNSF met with representatives of shippers and mines five times from December 2009 to October 2010 to discuss the test procedures and results and answer questions.<sup>54</sup> In addition, after BNSF selected the first few chemical agents to start the tests, an independent selection committee chose the other topper agents and body treatments to be tested.<sup>55</sup>

The Super Trial initially identified three effective topper agents (i.e., agents that reduced coal dust emissions by 85% when combined with profiling compared to untreated cars).<sup>56</sup> After

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<sup>47</sup> BNSF Opening, V.S. VanHook 7-12. None of the body chemical treatments evaluated in the Super Trials were found to be effective. Id. at 14-15.

<sup>48</sup> Id. at 11. A passive collector is a device that is mounted on the rear sill of an individual coal car. The collector allows air containing dust particles to pass through the device as the train moves and then deposits the dust into a removable container inside the collector. Id. at 10-11.

<sup>49</sup> Id. at 11.

<sup>50</sup> Id.

<sup>51</sup> Id. at 11; BNSF Reply, V.S. VanHook 13.

<sup>52</sup> BNSF Opening, V.S. VanHook 11.

<sup>53</sup> Id. at 8.

<sup>54</sup> Id.

<sup>55</sup> Id. at 9. The selection committee included coal shippers and coal producers, and BNSF did not have voting rights on the committee. Id.

<sup>56</sup> Id. at 12.

the Super Trial tests, shippers and mines sponsored successful passive collector tests for two additional topper agents, which BNSF then added to the safe harbor.<sup>57</sup>

Shippers here have made a number of complaints that they say invalidate the Super Trial. The shipper parties argue that the Super Trial tests cannot show that the approved topper agents effectively reduce coal dust emissions because of inadequacies in the trial design and execution. Coal Shippers argue that the passive collector measurements are not meaningful or cannot be evaluated because (1) BNSF did not identify the size range of particles captured by the passive collectors;<sup>58</sup> (2) testing protocol did not establish sufficient procedures to address the treatment of non-coal materials collected in the passive collectors;<sup>59</sup> (3) BNSF has not shown that the particulate matter in the air flowing into the collectors has the same concentration as particulate matter in the entire airflow over the railcar tops;<sup>60</sup> (4) BNSF has not provided enough information about how measurements of samples were taken;<sup>61</sup> and (5) BNSF has not provided enough information about the protocols related to handling of passive collectors and whether those protocols were followed.<sup>62</sup> The Coal Shippers contest BNSF's claims that its tests were informative and argue that if the tests were not sufficiently accurate to determine specific quantities of coal dust loss, then it is unlikely that the same tests can accurately determine the relative amount of coal dust loss from treated versus untreated cars.<sup>63</sup>

We have reviewed the facts surrounding the Super Trial, including the results submitted by BNSF, the criticisms leveled by the shipper parties and BNSF's responses and conclude that the Super Trial was sufficient to demonstrate that load profiling and the application of approved topper agents reduce coal dust loss by 85 percent or more.

BNSF's witnesses have provided sufficient responses to the shippers' criticisms regarding the design and use of the passive collectors. BNSF's witnesses addressed the issue of particle size, explaining that, based on the results of prior studies, the passive collectors were designed to capture particles as small as 1/200 of an inch, which would trap the particles that otherwise would be likely to settle into the ballast.<sup>64</sup> Similarly, BNSF's witnesses explained that they considered the airflow issues in placement of the collectors on the trains, and that the location and height of the collectors were based on prior tests, which showed where the greatest

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<sup>57</sup> Id.

<sup>58</sup> Coal Shippers Opening 19, V.S. Viz 8-12.

<sup>59</sup> Coal Shippers Opening 19, V.S. Viz 10-11.

<sup>60</sup> Coal Shippers Opening, V.S. Viz 12-15.

<sup>61</sup> Coal Shippers Opening 19, V.S. Viz 15-19.

<sup>62</sup> Coal Shippers Opening 17-22.

<sup>63</sup> Coal Shippers Reply 8-9.

<sup>64</sup> BNSF Reply, V.S. Emmitt 5.

amount of dust had been collected.<sup>65</sup> BNSF also varied the treated cars from front to rear to account for possible variations in car location.<sup>66</sup> In addition, the criticisms leveled at the use of passive collectors by Dr. Viz, the Coal Shippers' expert witness, are undermined by his prior use of passive collectors in studies he performed in 2008 and his recognition that passive collectors are appropriate for the use they were put to here—measurement of *relative* amounts of coal dust emitted.<sup>67</sup>

The shipper parties also take issue with the quality of the Super Trial test data, claiming that data quality issues render the test results meaningless. AECC and Coal Shippers argue that the sample size was too small and therefore not statistically significant.<sup>68</sup> Coal Shippers also question the competence of the consultants who conducted the testing, noting that they are the same consultants who were responsible for the measurement system questioned by the Board in Coal Dust I, slip op. at 12-14, and claim that attempts to express concerns about the tests in writing were discouraged.<sup>69</sup> AECC argues that in some instances, changes to results were considered or implemented when BNSF and its consultants believed the results were not consistent with what they expected, calling into question the validity of the results.<sup>70</sup> AECC notes that the IDV.2 measurement system detected significant dusting from treated trains during Super Trial testing, which it claims contradicts the asserted effectiveness of the topper agents.<sup>71</sup>

We find that the sample size was sufficient. While the amount of coal dust collected from untreated cars showed large variability, the amount of coal dust collected from treated cars showed low variability.<sup>72</sup> We find that the consistent results for treated cars indicate that a larger sample size was not necessary and that the approved topper agents performed well under a wide range of conditions.

The tests also appear to have been properly executed by an experienced staff.<sup>73</sup> BNSF has explained that the only exclusion of data was to prevent distortion of results due to rain (because rain limits coal dust loss regardless of topper agent application) and for two trains that had received flawed application of the topper agent.<sup>74</sup> We find that BNSF has sufficiently

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<sup>65</sup> Id. at 5-6.

<sup>66</sup> Id. at 6.

<sup>67</sup> Id. at 3-4 & n.1.

<sup>68</sup> AECC Opening 20, V.S. Nelson 46-48; Coal Shippers Opening 19, V.S. Viz 22-26.

<sup>69</sup> Coal Shippers Opening 20, V.S. Viz 22.

<sup>70</sup> AECC Opening, V.S. Nelson 48-50.

<sup>71</sup> Id. at 51-52.

<sup>72</sup> BNSF Reply 11-12, V.S. Emmitt 10-12.

<sup>73</sup> BNSF Reply 15-16, V.S. VanHook 14.

<sup>74</sup> BNSF Reply 15, V.S. Emmitt 8.

explained its testing protocols, and gave sufficient instruction on removal of foreign materials from the collection bags.<sup>75</sup> Although the shipper parties argue that the instructions were insufficient, they do not explain what they believe would constitute appropriate instructions. BNSF has detailed its measurement procedures, and we find them to be appropriate.<sup>76</sup>

The shipper parties argue that the Super Trial did not address the real-world conditions under which topper agent-treated coal trains would travel and that the results therefore do not show that the approved topper agents achieve 85% reduction of coal dust. Coal Shippers and AECC argue that the tests ignored the effects of weather, such as cold, wind, and rain, on the application, curing process, and effectiveness of topper agents.<sup>77</sup> They also claim that the Super Trial did not consider the effect of train speed on coal dust loss.<sup>78</sup> AECC claims that because the tests only considered coal dust loss over a limited distance, the tests do not show that the topper agents will reduce loss over the entire trip and in fact may lead to greater losses later in the trip.<sup>79</sup> AECC also claims that improper topper agent application (both excessive and incomplete application) calls the validity of the results into question.<sup>80</sup>

We find that the testing adequately accounted for weather conditions and real world operations. BNSF addresses why it did not normalize the data using the Rail Transport Emission Profiling System (RTEPS), which Coal Shippers argue should have been done to account for weather conditions.<sup>81</sup> We are persuaded by BNSF's explanation that it collected the RTEPS data and used it to identify test trains that ran during precipitation, but concluded that the actual data, which compares relative weights between treated and untreated cars that ran under the same weather conditions, was preferable to adjusted data for which Coal Shippers argue.<sup>82</sup> We also find persuasive BNSF's explanation that the tests accounted for varying weather conditions because trains ran during cold, hot, and windy conditions.<sup>83</sup> BNSF excluded trains that ran during precipitation because rainy conditions limit coal dust loss regardless of topper agent application, but the approved topper agents underwent lab tests to ensure that they worked in precipitation.<sup>84</sup> While the field tests did not take place during the coldest months of the year, the

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<sup>75</sup> BNSF Reply, V.S. VanHook 14.

<sup>76</sup> Id. at 12-13.

<sup>77</sup> Coal Shippers Opening 20, V.S. Viz 33-35; AECC Opening 17-18, V.S. Nelson 40-43.

<sup>78</sup> Coal Shippers Opening, V.S. Viz 33-35; AECC Opening 19, V.S. Nelson 44-45.

<sup>79</sup> AECC Opening 13, V.S. Nelson 45-46.

<sup>80</sup> AECC Opening 19; V.S. Nelson 43-44.

<sup>81</sup> BNSF Reply, V.S. Emmitt 6-8.

<sup>82</sup> Id. at 7.

<sup>83</sup> Id. at 9.

<sup>84</sup> Id. at 8.

topper agents were designed for cold weather conditions and were lab tested under freezing conditions.<sup>85</sup>

Similarly, we do not find that variations in the speeds of the test trains invalidated the results. AECC claims that some test trains ran at limited speeds. Although the evidence does not show the speeds of all the test trains, as explained above we believe the results show that the topper agents are effective under a variety of conditions.<sup>86</sup>

AECC argues that the profiled shape required by the tariff combined with BNSF's operating and maintenance practices cause topper agents to crack in transit, which leads to failure of the topper agent.<sup>87</sup> AECC claims that photographs show that topper agents had failed on 29 of 34 trains for which photographs were available by the time those trains reached Alliance, Neb.<sup>88</sup> We do not find AECC's evidence persuasive. Regardless of any cracking in transit, the test results for the topper agents approved following the Super Trial show an 85% reduction in coal dust emissions from treated cars compared to untreated cars.<sup>89</sup> BNSF witnesses stated that cracked topper agent crust can still provide sufficient protection against coal dust loss, particularly considering that the tariff does not require 100% elimination of coal dust loss.<sup>90</sup> Finally, BNSF witnesses explained that the topper agents in the Super Trial were applied using temporary equipment and that cracking should be reduced as the application process at the mines improves with experience and the installation of permanent equipment.<sup>91</sup> AECC has not given

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<sup>85</sup> Id. at 9.

<sup>86</sup> AECC claims that a series of about 40 test trains ran below 40 miles per hour while non-test trains ran above 40 miles per hour. AECC Opening, Nelson V.S. 44-45. The evidence, while somewhat ambiguous because the columns and rows of the tables are not labeled, see AECC Supplement to Opening Evidence, App. H, BNSF Coal Dust II 00311350-63, appears to show that a series of trains ran at approximately 35 to 39 miles per hour. However, given that the evidence does not show the speeds of all 115 trains in the Super Trial passive collector tests, we cannot find that there was a consistent effort to operate test trains below normal operating speed, particularly given that there does not appear to have been a substantial decrease below 40 miles per hour. Also, because the passive collector tests show relative results, the tests still indicate that the topper agents achieve the claimed performance levels.

<sup>87</sup> AECC Opening, V.S. Nelson 21-26.

<sup>88</sup> AECC Reply 14-15, V.S. Nelson 6-11; see also AECC Rebuttal 17, V.S. Nelson 12-16.

<sup>89</sup> BNSF Rebuttal, V.S. Carré and Murphy, Ex. 1, worksheet "Passive Collector Dust Weights for Trains Cited by Mr. Nelson Worksheet – HIGHLY CONFIDENTIAL." Further, BNSF presented evidence that many of the railcars in the photographs were treated with topper agents that were not approved, and that the photographs do not show a problem or are unclear. BNSF Rebuttal, V.S. Carré and Murphy 2-3.

<sup>90</sup> BNSF Rebuttal, V.S. Carré and Murphy 3-4.

<sup>91</sup> Id. at 6-8.

us any reason to believe that the application of topper agents in the Super Trial was so problematic that we must find that the consistent results of the tests are not meaningful.

Further, we do not find that the length of the trip used in the tests invalidates the results. Shippers have not shown that the topper agents fail beyond the test end point. As discussed above, the photographs that show cracking in the topper crust do not establish topper agent failure and therefore do not prove that topper agents are failing or will fail beyond the test area.

In sum, the test results for the topper agents approved following the Super Trial show an 85% reduction in coal dust emissions from treated cars compared with untreated cars.<sup>92</sup> The results of the Super Trial are consistent with the other evidence, discussed earlier, that topper agents are effective in suppressing coal dust. The shipper interests that oppose the tariff have not offered any evidence that directly contradicts the results of the Super Trial.

Certainty. Ameren Missouri and NCTA argue that the safe harbor does not provide sufficient certainty to shippers. NCTA argues that the requirement that shippers reduce coal dust by 85% lacks a defined starting point from which to measure reduction and criteria that define how BNSF will determine if the 85% standard has been met.<sup>93</sup> NCTA claims that this makes it impossible for shippers who are currently taking various coal dust reduction measures, such as profiling, to determine if they already meet the 85% standard without using the safe harbor.<sup>94</sup> Ameren Missouri argues that the last sentence of paragraph 4 of the tariff item (the “liability provision”), which states that coal dust suppression methods shall not cause adverse impacts to BNSF employees and property, contravenes the concept of a safe harbor.<sup>95</sup>

AECC argues that the safe harbor does not provide sufficient certainty because it involves a performance standard.<sup>96</sup> AECC claims that BNSF plans to impose penalties for failure to achieve optimal safe harbor compliance; therefore, compliance with the safe harbor will not provide assurance to shippers that their coal will ship without incurring penalties.<sup>97</sup> AECC also argues that BNSF is using a laser to monitor profiling, that BNSF intends to use lasers to assess the quality of topper application, and that BNSF has not disclosed the computer

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<sup>92</sup> Id. at Ex. 1 and worksheet “Passive Collector Dust Weights for Trains Cited by Mr. Nelson Worksheet – HIGHLY CONFIDENTIAL.” The test results rebut AECC’s claims that the use of profiling is incompatible with application of topper agents. See AECC Opening 12-13. If profiling and topper agents were incompatible as the shipper parties argue, the test results would not have shown the significant and consistent reductions in coal dust emissions.

<sup>93</sup> NCTA Opening 7-9.

<sup>94</sup> Id. at 8-9.

<sup>95</sup> Ameren Missouri Opening 4.

<sup>96</sup> AECC Reply 8-10.

<sup>97</sup> Id. at 8-9.

program that the laser system uses to monitor profiling.<sup>98</sup> AECC claims that BNSF has found that about half the loads monitored with the laser system do not have the ideal profile.<sup>99</sup> AECC and Coal Shippers contend that, because the profile and topper agent coating are likely to degrade during transit, especially under certain operating conditions or due to the condition of the track, the safe harbor combined with the laser monitoring system will create uncertainty for shippers, citing the Board’s concerns in Coal Dust I, slip op. at 13-14.<sup>100</sup> Coal Shippers argue that the tariff should be revised to state that shippers will be in compliance with the profiling requirement if the mine operators have installed and are using a chute designed in accordance with the current tariff’s chute diagram.<sup>101</sup>

BNSF and UP argue that the safe harbor addresses the Board’s concerns about certainty because shippers that instruct their mine agents to implement the safe harbor will know at loading that they are in compliance with the tariff.<sup>102</sup> BNSF also argues that it currently uses the laser monitoring system only to provide feedback to mines and shippers to help them improve their loading practices<sup>103</sup> and that the distance between the mines and the laser monitoring system does not matter because the coal will naturally settle into the correct profile as the train moves.<sup>104</sup> USDOT states on opening that the safe harbor appears to address the certainty issues raised by the Board in Coal Dust I.<sup>105</sup>

We find that the safe harbor provides sufficient certainty to shippers because if mine agents take the specified loading steps—profiling and application of an approved topper agent—shippers will have reasonable assurance of compliance. This is consistent with the Board’s finding in Coal Dust I, slip op. at 12-14, that a reasonable rule would provide certainty to shippers, would give shippers a compliance option that is independent of monitoring system results, and would “focus shipper efforts to minimize coal dust emissions . . . at the load-out.” NCTA’s argument regarding the starting point and measurement of the 85% standard is not relevant to the degree of certainty that the safe harbor provides to shippers. The safe harbor provides a reasonable degree of certainty to shippers that use it regardless of how the 85% standard is measured.<sup>106</sup> Moreover, the tariff establishes a clear starting point—“85 percent as

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<sup>98</sup> Id. at 9.

<sup>99</sup> Id.

<sup>100</sup> AECC Reply 10; WCTL Opening 37.

<sup>101</sup> WCTL Opening 37-38.

<sup>102</sup> BNSF Opening 11; BNSF Reply 2-3; UP Opening 3; UP Reply 3.

<sup>103</sup> BNSF Reply 25 n.14; see also BNSF Opening, V.S. Carré & Murphy 5.

<sup>104</sup> BNSF Reply, V.S. Carré & Murphy 4 n.3.

<sup>105</sup> USDOT Opening 6-7.

<sup>106</sup> Because, as discussed below, we conclude that the liability provision is unreasonable on other grounds, we need not consider whether it affects the certainty provided by the safe harbor.

compared to loss in transit of coal dust from coal cars where no remedial measures have been taken”—for measuring the efficacy of alternative coal dust mitigation measures for shippers that wish to employ an alternative to the safe harbor.

BNSF’s current use of the laser monitoring system to provide feedback on execution of the safe harbor loading steps does not negate the certainty provided by the safe harbor. We understand that, at some point in the future, after appropriate notice and an opportunity to cure, BNSF could choose to take enforcement action against shippers whose mine agents do not profile and apply topper agents during the loading process. We will address the reasonableness of any enforcement actions taken by BNSF in the context of specific facts brought to us on complaint.

Similarly, the suggestion that the tariff should be modified to state that shippers will be in compliance with the profiling requirement if the mine operators have installed and are using a chute designed in accordance with the current tariff’s chute diagram can be addressed if an actual issue arises regarding that section of the tariff. With respect to profiling, the tariff provides that a shipper will be in compliance with BSNF’s loading requirement if the shipper “ensures that loaded uncovered cars will be profiled in accordance with BNSF’s published template entitled ‘Redesigned Chute Diagram . . . .’”<sup>107</sup> Coal Shippers have not explained why this language creates so much uncertainty that it should be found to be unreasonable and replaced with the shippers’ preferred formulation.<sup>108</sup>

One of Coal Shippers’ major concerns appears to be that BNSF will enforce the revised tariff in a way that violates the principles of Coal Dust I. But this issue is not ripe for decision at this time. The revised tariff includes coal loading procedures that are deemed to comply with the performance standards of the tariff, and, which, based on the current record, we find are not unreasonable. Given that full compliance with this tariff has not yet begun, it is prudent to wait to see how the tariff and enforcement works in practice before we opine on enforcement methods. As we have noted, shippers will have 60 days to bring complaints to the Board before BNSF takes enforcement action.

Cost effectiveness. Shipper parties argue that the safe harbor is not cost effective. AECC and Coal Shippers argue that the 85% standard on which the safe harbor is based is excessive

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<sup>107</sup> BSNF Price List 6041-B, Item 100, Para. 3.A.

<sup>108</sup> Coal Shippers compare the alleged uncertainty created by the revised tariff provision to the uncertainty created by the previous version of the tariff, Coal Dust I, slip op. at 12-14, but the comparison is fundamentally flawed. The revised tariff does not contain the types of problems that caused the Board to find the prior tariff unreasonable—such as an emissions standard inadequately supported by evidence, unexplained issues with the measurement system for the emissions standard, and a lack of guidance on compliance methods. The overwhelming evidence of uncertainty present in the Coal Dust I proceeding is not present here.

because other measures, primarily profiling combined with use of three-inch coal<sup>109</sup> and maintenance, can achieve significant reductions for a much lower cost than the safe harbor.<sup>110</sup> Coal Shippers argue that BNSF has no incentive to compare the cost of the safe harbor to other approaches because shippers bear all compliance costs under the tariff.<sup>111</sup> Similarly, AECC argues that BNSF did not establish a reasonable basis for the 85% requirement and did not do a cost analysis to support the standard.<sup>112</sup> AECC takes issue with what it claims is the lack of credit shippers have received for voluntary measures taken to reduce coal dust and argues against the 85% standard because the standard, according to AECC, does not give shippers any credit for previously achieved reductions.<sup>113</sup> AECC suggests several alternative methods to reduce coal dust emissions.<sup>114</sup>

AECC argues on opening that BNSF did not try to reconcile its 85% coal dust reduction standard with the Board's requirement from Coal Dust I, slip op. at 5 n.14, 6, 12, that measures be cost effective and reasonably economically commensurate with the problem.<sup>115</sup> AECC claims that BNSF should have anticipated the issue and the Board should require BNSF to submit its best case on opening.<sup>116</sup> AECC claims that the lowest topper agent price quoted by BNSF is not generally available.<sup>117</sup> AECC argues that without shipper savings from preservation of coal and given BNSF's admission that the safe harbor will not decrease its maintenance costs, the expense of the safe harbor is not justified.<sup>118</sup> AECC claims that the addition of mainline tracks addresses the capacity concerns the Board expressed in Coal Dust I, slip op. at 5-6.<sup>119</sup> Coal Shippers argue that BNSF's testing shows and its witnesses admit that profiling and three-inch coal produce significant reductions in coal dust emissions and that BNSF has requested that shippers switch to three-inch coal.<sup>120</sup>

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<sup>109</sup> "Three-inch coal" refers to coal that has been crushed to pieces that fit between rollers spaced three inches apart. BNSF Reply, V.S. Emmitt 13. Most mines in the PRB crush the coal using rollers spaced two inches apart, although some mines now use rollers spaced three inches apart. See id. at 14. The shippers' claim is that less dust is created when crushing three-inch coal. Id. at 13.

<sup>110</sup> Coal Shippers Opening 22-23.

<sup>111</sup> Id. at 23.

<sup>112</sup> AECC Opening 15-16, V.S. Nelson 27-30.

<sup>113</sup> AECC Opening 14-15.

<sup>114</sup> AECC Opening, V.S. Nelson 55-56.

<sup>115</sup> AECC Reply 6; AECC Rebuttal 12.

<sup>116</sup> AECC Reply 7.

<sup>117</sup> Id. at 18-19.

<sup>118</sup> AECC Rebuttal 10-11.

<sup>119</sup> AECC Rebuttal 11 n.6.

<sup>120</sup> Coal Shippers Opening 23; Coal Shippers Reply 26-27; Coal Shippers Rebuttal 22.

The Board stated in Coal Dust I, slip op. at 5 n.4, that “[i]n 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,” and that a tariff provision should be “reasonably commensurate economically with the problem it addresses,” slip op. at 6. Because the shipper parties are seeking a declaration that the coal dust suppression method in the safe harbor is unreasonable, they had the burden of proving that the safe harbor does not meet the standard we established in Coal Dust I. We find that the shipper parties failed to carry this burden. The coal dust suppression method set forth in the safe harbor has been shown to reduce coal dust emission by 85% or more. No party has presented evidence of a coal dust control method that achieves a reduction comparable to the safe harbor.

Although the shipper parties argue that BNSF’s statement that implementation of the safe harbor will not reduce its maintenance costs<sup>121</sup> indicates that the safe harbor has no benefits, we conclude that the impacts of coal dust on ballast integrity justify containment efforts. The Board explained in Coal Dust I, slip op. at 7, that coal dust fouling of the ballast is not necessarily visible prior to track failure. This fact supports the reasonableness of BNSF’s decision that containment is superior to maintenance alone; if BNSF cannot pinpoint the location of significant coal dust accumulations, its maintenance tasks are more challenging. In addition, the Board explained, id. at 9, 11, that BNSF has a right to establish loading requirements calculated to produce reliable and efficient service.

We find that the shipper parties have not shown that the effective safe harbor is not reasonably commensurate with its cost. The Board has held that carriers can require coal shippers to take reasonable loading measures to ensure that their coal remains in the railcars. Coal Dust I, slip op. at 11. The evidence shows that application of topper agents is the most effective measure for controlling the dispersion of coal dust from open-top rail cars. There is no evidence that topper agents are cost prohibitive, particularly in relation to the delivered cost of PRB coal, which is approximately \$30 per ton.<sup>122</sup> . In the Coal Dust I proceeding, WCTL cited an estimate that the cost of topper agent application would be \$0.10 to \$0.75 per ton of

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<sup>121</sup> Coal Shippers and AECC argue that while BNSF claims in this proceeding that safe harbor compliance will not affect its maintenance costs, BNSF claimed in the Coal Dust I proceeding that coal dust containment would reduce its maintenance costs. Coal Shippers Rebuttal 18-19; AECC Rebuttal 10-11. We do not need to determine whether compliance will reduce BNSF’s maintenance costs to decide the issues in this proceeding. As we explain, we conclude that containment is a reasonable strategy regardless of whether it reduces BNSF’s maintenance costs. However, if the safe harbor does reduce maintenance costs, the savings would only further justify containment.

<sup>122</sup> BNSF Opening, V.S. VanHook 17. This estimate is based on a typical movement of about 1,000 miles. Id.

coal.<sup>123</sup> Coal Shippers acknowledge that this cost estimate is consistent with the estimate they cite in this proceeding.<sup>124</sup>

The shipper parties argue that the 85% standard is excessive and that a lower standard could be achieved for a lower cost, but the evidence presented does not show that any other control method achieves a reduction of, or even near to, 85%. The shipper parties primarily argue that operations and maintenance changes, three-inch coal, and profiling would reduce coal dust for a much lower cost than the safe harbor. However, the shipper parties have not shown that three-inch coal, without application of topper agents, is likely to reduce coal dust emissions by, or even near to, 85%.<sup>125</sup> Even with 3-inch roller spacing, the crushing process creates a substantial amount of coal dust and small coal particles.<sup>126</sup> Four trials testing three-inch coal and profiling showed average reductions of coal dust in transit ranging from 38% to 62%,<sup>127</sup> far less than that of the results shown by the safe harbor. While AECC proposes other methods, it offers no evidence of their efficacy.<sup>128</sup> Without persuasive evidence that another method achieves significant reductions, we do not need to consider any further the claim that the 85% standard is excessive. We find no basis to overturn BNSF's decision to pursue a containment approach that is supported by test results and not cost-prohibitive in relation to the cost of delivered coal in favor of methods that appear to be inferior based on available evidence.

The shipper parties also fail to offer any evidence that would allow us to evaluate the relative merits of varying levels of coal dust loss reduction. While the shipper parties seem to want the agency to perform an analysis that would establish the benefits of varying levels of coal dust reduction, they did not provide the data necessary for the analysis or submit their own study. Thus, we cannot determine the costs and benefits of methods that would achieve 50% versus 70% versus 85% reduction. We therefore conclude that the 85% standard, which can be achieved by the currently available safe harbor, is not unreasonable.<sup>129</sup>

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<sup>123</sup> WCTL Opening, V.S. Crowley 5-6, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305. This estimate was based on a study that WCTL described as the most credible, comprehensive, and detailed of the cost estimates produced by BNSF in discovery during that proceeding. Id. at 6. WCTL stated that the cost would vary by mine size, with higher costs at smaller mines. Id. at 5-6.

<sup>124</sup> Coal Shippers Opening 24 n.59. In this proceeding, NCTA estimate the annual cost of topper application to be \$50 million to \$150 million. Id. at 24.

<sup>125</sup> BNSF Reply, V.S. Emmitt 13-16.

<sup>126</sup> Id. at 13-14.

<sup>127</sup> Coal Shippers Opening 22-23. Coal Shippers do not give an average result for one of the four trials; instead they state that the reductions for that trial ranged from 46% to 67%. Id. at 23.

<sup>128</sup> See AECC Opening, V.S. Nelson 55-56.

<sup>129</sup> AECC argues that BNSF should have addressed cost effectiveness issues on opening and that by not doing so it violated Board precedent that requires it to submit its best evidence on  
(continued . . . )

Safe harbor risks. AECC claims that there are safety issues associated with the use of the selected topper agents, but it has not shown that topper agents are unsafe.<sup>130</sup> AECC submitted no testimony from an environmental or safety expert to support its allegations, and it has not explained the safety hazards it claims are associated with overspray and buildup of topper agents on railcars.<sup>131</sup> Moreover, the documents cited by AECC are ambiguous at best.<sup>132</sup> AECC therefore has not met its burden of proving the harms or establishing the significance of those harms.<sup>133</sup>

In summary, we find that coal shippers have not shown that the safe harbor is unreasonable, and we are persuaded by the record evidence that the tariff is not unreasonable (except for the liability provision). Load profiling and application of topper agents are effective commercially available methods of controlling the dispersion of coal dust and are not cost prohibitive. The safe harbor provides shippers with the certainty lacking in the tariff that the

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( . . . continued)

opening. AECC Reply 7-8 (citing M&G Polymers USA, LLC v. CSX Transp., Inc., NOR 42123, slip op. at 9 (STB served Sept. 27, 2012)). We do not find that BNSF inappropriately waited until reply to address arguments that had not yet been made at the time of its opening. We also note that BNSF argued on opening that the safe harbor is cost effective. See BNSF Opening 19-20.

<sup>130</sup> AECC Opening 23-24, V.S. Nelson 34-35, 53-54; AECC Reply 15 n.5. The issues that AECC claims regarding topper agent residues are separate from other asserted impacts.

<sup>131</sup> See AECC Opening, V.S. Nelson 53 n.128.

<sup>132</sup> The material consists of statements by BNSF that it would consider overspray issues in the testing process, a statement by a utility that it would not participate in the tests because the topper agents could make the outside of the cars slippery, and unclear photographs from various sources. See id.

<sup>133</sup> We also conclude that AECC has not proven its claims regarding other problems with topper agents. The email cited by AECC is inconclusive as to whether the combustion issue it describes was resolved or whether it was experienced by any other utilities. See id. at 53. However, we believe that, if combustion problems were experienced to any great extent, the evidence of those problems would be part of the record in this proceeding. We do not consider the claim of damage to paint on railcars, if true, a serious issue that would overcome the advantages of the safe harbor. See id. at 53 n.129. Finally, the email that AECC cites in support of its claim that chemical residue was found in ash settling ponds is ambiguous because it is not clear that the subject of the email is ash settling ponds and for that reason alone we cannot draw any conclusions from it. See id. at 53. While AECC also cites an email that contains a “Draft Commercial Rail Car Dust Mitigation Program Plan,” the plan merely states that some facilities ban certain chemicals due to ash settling pond issues, but it does not establish that any of the approved topper agents contain such chemicals. See id. at App. H, BNSF Coal Dust II 00117328-29.

Board found unreasonable in Coal Dust I. In addition, shipper parties have not met their burden of proving environmental or safety harms.

Approval of Alternative Safe Harbor Measures

AECC and NCTA take issue with sections 3.B and 4 of Item 100 of the tariff, which allow shippers to propose additional topper agents or new methods of coal dust reduction and state that BNSF will approve the proposal if evidence exists that the alternative reduces coal dust loss by 85%. AECC cites the Board's statement in Coal Dust I, slip op. at 6, that coal dust control is evolving and that the industry should continue to consider new approaches to the issue,<sup>134</sup> arguing that despite sections 3.B and 4 of Item 100 of the tariff, shippers will not be able to obtain approval of alternatives that would be as effective as the current safe harbor.<sup>135</sup> AECC argues that BNSF skewed the Super Trial to show an 85% reduction by the approved topper agents but claims that BNSF has no reason to similarly assure approval for alternatives proposed by shippers.<sup>136</sup> AECC claims that BNSF does not have a reason to consider significantly less expensive alternatives.<sup>137</sup> NCTA argues that the tariff provides no guidance as to what constitutes appropriate testing of alternatives.<sup>138</sup>

BNSF claims that it has worked with shippers to consider and test alternatives.<sup>139</sup> BNSF notes that the original safe harbor had three approved topper agents, but on the request of shippers two additional topper agents were tested and added to the safe harbor.<sup>140</sup> BNSF also claims that it worked with shippers to test compaction and body treatment chemicals, although they were not approved as safe harbors.<sup>141</sup> BNSF states that it will continue to work with shippers to test alternative methods for coal dust control.<sup>142</sup>

We find that the tariff language addressing approval of alternative safe harbor methods is not unreasonable. Use of the same methodology for future tests should address shipper concerns about fairness. If a shipper believes that BNSF has unfairly denied approval of an alternative method, that shipper may bring a complaint to the Board.

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<sup>134</sup> AECC Opening 21-22.

<sup>135</sup> Id. at 21-23.

<sup>136</sup> Id. at 22.

<sup>137</sup> Id.

<sup>138</sup> NCTA Opening 9.

<sup>139</sup> BNSF Reply, V.S. Bobb 3.

<sup>140</sup> Id.

<sup>141</sup> Id.

<sup>142</sup> Id.

While we find in the decision that the shippers have not shown that the cost of applying topper agents would be prohibitive, it would also be unreasonable for BNSF to refuse to cooperate with shippers in evaluating and testing lower cost methods of achieving compliance with BNSF's coal dust mitigation tariff. BNSF and shippers that use PRB coal have a mutual interest in finding lower cost methods of meeting the 85% coal dust reduction requirement. We expect BNSF to cooperate in good faith regarding all issues related to testing alternative methods of coal dust suppression.

### Enforcement Issues

Coal Shippers and NCTA argue that the lack of enforcement measures in the tariff renders it unreasonable.<sup>143</sup> They note that in Coal Dust I, slip op. at 14, the lack of enforcement measures in the tariff at issue there was one factor in the Board's decision finding the tariff unreasonable.<sup>144</sup> Coal Shippers claim that most tariffs specify the consequences of failure to meet performance standards, and that the law requires this because all transportation terms must be in the tariff text.<sup>145</sup> Coal Shippers argue that the lack of consequences is a particular problem here because of public reports that BNSF may refuse service or impose extreme financial penalties for failure to meet the tariff's performance standards,<sup>146</sup> noting the Board's statement in the decision instituting the proceeding in the prior docket regarding the importance of coal transportation to the United States' energy supply and economy.<sup>147</sup> Coal Shippers claim that sound public policy requires BNSF to specify its enforcement measures because without specified measures shippers and the Board must guess at the possible consequences.<sup>148</sup> Similarly, NCTA argues that the Board should declare that BNSF may only deny service under narrow, defined circumstances and that denial of service would not be an appropriate penalty for noncompliance with this tariff.<sup>149</sup>

BNSF argues that, although it did not include enforcement measures in the tariff, the safe harbor is sufficient to address the Board's concerns in Coal Dust I, slip op. at 14, about the lack of enforcement measures in the tariff.<sup>150</sup> UP cites its own tariff that contains rules for coal trains

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<sup>143</sup> Coal Shippers Opening 33-36; NCTA Opening 10.

<sup>144</sup> Coal Shippers Opening 33-34; NCTA Opening 10.

<sup>145</sup> Coal Shippers Opening 34 (citing Birmingham Rail & Locomotive Co. v. Aberdeen & Rockfish R.R., 358 I.C.C. 606, 608 (1978), and Radioactive Materials, Special Train Service, Nationwide (Radioactive Materials), 359 I.C.C. 70, 73 (1978)).

<sup>146</sup> Id. at 35.

<sup>147</sup> Id. at 35 (citing Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305, slip op. at 1 (STB served Dec. 1, 2009)).

<sup>148</sup> Id. at 36.

<sup>149</sup> NCTA Opening 10-12.

<sup>150</sup> BNSF Opening 21-24.

in the PRB, claiming that the tariff has not led to shipper complaints that it is unreasonable despite the fact that it does not contain penalties for various items, such as the heightened coal car maintenance requirements to prevent derailments associated with axle failure.<sup>151</sup>

The tariff's lack of enforcement measures in and of itself is not unreasonable.<sup>152</sup> The Board found in Coal Dust I, slip op. at 14, that the lack of enforcement measures in the previous tariff was one aspect of many uncertainties in that tariff. But under the revised tariff, shippers that take the clearly defined steps of profiling and applying an approved topper agent will be assured of their compliance. Under the tariff at issue in Coal Dust I, not only would shippers not have known the enforcement measures, they would not have known if their chosen compliance methods would meet the standard, if the equipment measuring their compliance would accurately measure coal dust losses from the trains carrying their coal, or whether the conditions under which their coal traveled would affect whether they were deemed compliant. Coal Dust I, slip op. at 13-14. But in general, as UP's example shows, not all tariffs specify enforcement measures.

Our decision here is not inconsistent with Birmingham Rail & Locomotive Co., 358 I.C.C. at 608, or Radioactive Materials, 359 I.C.C. at 73, the cases cited by the shipper parties. While both decisions state that tariffs must be clear, neither requires that a tariff contain enforcement measures. Birmingham Rail & Locomotive Co., 358 I.C.C. at 607-608, concerned a tariff's requirement that some, but not all, shipments of locomotive cranes, which are susceptible to derailment and must be run at lower speeds than other rail equipment, use special train service. The ICC found the tariff to be ambiguous due to lack of guidelines for determining the speed capability of individual locomotive cranes, which the ICC was concerned would lead to unequal treatment of shippers. Id. at 608. Radioactive Materials, 359 I.C.C. at 73, concerned a tariff that stated special train service for spent nuclear fuel and radioactive waste materials would be available "at [the railroad's] convenience", which the ICC found was ambiguous.

Neither Birmingham Rail & Locomotive Co. nor Radioactive Materials addresses the lack of enforcement measures that are at issue here. The lack of enforcement measures does not pose the same risk of discriminatory practices with which the ICC was concerned in Birmingham Rail & Locomotive Co. As BNSF explains, shippers that attempt good faith compliance will not face any immediate or serious penalties. The tariff clearly details how to comply, and BNSF has stated it will provide at least 60 days notice before taking an enforcement action to enable the affected shipper to seek Board intervention if it chooses to do so.<sup>153</sup> While identifying the

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<sup>151</sup> UP Reply 10.

<sup>152</sup> We note parties' concerns about light loading fees here. Ameren Missouri Opening 3; AECC Opening, V.S. Nelson 54. Although shippers do not fully explain the issue, as we understand it, they are concerned about established fees they may incur for under-loading their cars due to topper application. Should the situation actually arise, we will consider shippers' complaints.

<sup>153</sup> BNSF Opening 24.

potential enforcement measures in the tariff might give the appearance of assuring more equal treatment to noncompliant shippers, we do not find that Birmingham Rail & Locomotive Co. or Radioactive Materials requires it.

The shipper parties' concerns about denial of service are premature. We note BNSF's commitment on the record in this proceeding to provide at least 60 days notice before taking an enforcement action should help to assure shippers that they would receive ample notice of any enforcement measures, giving them an opportunity to bring a specific complaint to the Board, if necessary. Therefore, if and when a shipper wishes to contest BNSF's enforcement of the tariff, it can file a complaint.<sup>154</sup>

### Responsibility for Compliance Costs

Coal Shippers, NCTA, and AECC argue that the tariff is unreasonable because it requires shippers to bear all compliance costs.<sup>155</sup> First, Coal Shippers claim that the law requires BNSF to pay compliance costs because, while the supplier of railcars must provide a properly loaded car to permit safe transport,<sup>156</sup> the party that seeks special car treatment or service must bear the associated costs.<sup>157</sup> Coal Shippers argue that coal can be carried safely in open-top railcars, and that FRA regulations require only that the railroad maintain the ballast but do not require a particular maintenance method.<sup>158</sup> Therefore, Coal Shippers conclude that BNSF seeks special service and is responsible for the costs of that service.<sup>159</sup>

Coal Shippers argue further that railroads cannot require shippers to pay twice for the same service. According to Coal Shippers, under the tariff, the shippers pay shipping rates, which cover maintenance, and they also pay for tariff compliance to address ballast maintenance

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<sup>154</sup> NCTA argues that the lack of enforcement measures creates uncertainty for shippers that choose to opt out of the safe harbor. NCTA Opening 8-9. However, the purpose of the tariff is to achieve compliance, not to put a price on noncompliance. The safe harbor provides certainty for shippers, and shippers can seek approval of alternative compliance methods.

<sup>155</sup> Coal Shippers Opening 24-33; AECC Reply 15-17; NCTA Opening 13-14.

<sup>156</sup> Coal Shippers Opening 24-25 (citing 49 U.S.C. § 11706; Consignees' Obligation to Unload Railcars in Compliance with Carriers' Published Tariffs, 340 I.C.C. 405, 410 (1972); Waste Material Dealers Ass'n of Ark. v. Chi., Rock Island & Pac. Ry., 226 I.C.C. 683, 688 (1938)).

<sup>157</sup> Id. at 25 (citing Balt. & Ohio R.R. v. United States, 391 F. Supp. 249, 257 (E.D. Pa. 1975); Radioactive Materials, 359 I.C.C. at 91; Furnishing Suitable Cars for Loading Flour and Other Grain Products, 128 I.C.C. 442, 444 (1927)).

<sup>158</sup> Id. at 25-27.

<sup>159</sup> Id. at 27-28.

issues, effectively requiring shippers to pay for maintenance twice.<sup>160</sup> Therefore, Coal Shippers argue, because coal can be safely transported without topper agent application and because tariff compliance will reduce BNSF's maintenance costs, it is only fair that BNSF reimburse shippers for the costs of topper agent application, particularly given that coal and other commodities regularly move in open-top cars from which these commodities escape.<sup>161</sup> Finally, Coal Shippers point out that, while BNSF has cited examples of other carriers that require topper agent application, none of them require shippers to pay for that application.<sup>162</sup>

AECC claims that the lack of cost sharing shows BNSF's market power and violates the Constrained Market Pricing principles underlying the Board's regulation of rates.<sup>163</sup> AECC's witness asserts that BNSF's requirement that shippers apply topper agents increases the contribution to margin that BNSF earns from coal traffic in the PRB.<sup>164</sup>

BNSF and UP argue that shippers typically bear the cost of loading,<sup>165</sup> and BNSF claims that it should not have to bear costs of activities over which it has no control.<sup>166</sup> BNSF also argues that authorities cited by Coal Shippers do not support a requirement that a carrier share the costs associated with a reasonable loading rule; rather, the cited authorities hold that special loading or service requirements should be paid for by the party that initiates or requests them.<sup>167</sup> However, BNSF continues, the tariff is not an optional special service but a measure necessary for safe and reliable transportation.<sup>168</sup> Similarly, UP argues that, because the tariff addresses a safety issue, the argument that shippers are not responsible for loading costs not needed for safe transportation fails.<sup>169</sup>

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<sup>160</sup> Id. at 28-29 (citing Ind. Harbor Belt R.R. v. Gen. Am. Transp. Corp., 577 F.2d 394, 400 (7th Cir. 1978); Rail Fuel Surcharges, EP 661, slip op. at 10-11 (STB served Jan. 26, 2007)).

<sup>161</sup> Id. at 30-32.

<sup>162</sup> Id. at 32-33.

<sup>163</sup> AECC Reply 17, V.S. Nelson 13-15.

<sup>164</sup> AECC Reply, V.S. Nelson 14.

<sup>165</sup> BNSF Opening 25-26; UP Reply 7 (citing Bd. of Trade of Chi. v. Abilene & S. Ry., 220 I.C.C. 753, 761 (1937); Sw. Mo. Millers' Club v. St. Louis & S.F. R.R., 26 I.C.C. 245, 250 (1913); Nat'l Wholesale Lumber Dealers' Ass'n v. Atl. Coast Line R.R., 14 I.C.C. 154, 163 (1908)).

<sup>166</sup> BNSF Opening 25-26.

<sup>167</sup> BNSF Reply 21-22.

<sup>168</sup> Id. at 21.

<sup>169</sup> UP Reply 7-8.

BNSF disagrees with Coal Shippers' argument that through compliance costs shippers will pay to maintain ballast while also paying for the same service through rates.<sup>170</sup> BNSF responds that the tariff merely establishes a requirement that PRB coal shippers secure their freight, and Coal Shippers therefore mischaracterize the requirement.<sup>171</sup> BNSF also disagrees with Coal Shippers' claim that industry practice requires BNSF to share compliance costs.<sup>172</sup> BNSF also claims that it is not clear whether compliance will affect its maintenance costs.<sup>173</sup>

Coal Shippers respond that BNSF exercises control over loading because it sets the loading rules, and therefore BNSF cannot disclaim responsibility for costs on the basis that it lacks control over the process.<sup>174</sup> Coal Shippers also argue that the loading control issue can be addressed by limiting BNSF's responsibility to a specific per-ton allowance or to reasonably incurred costs and by Board adjudication of related disputes.<sup>175</sup>

In response to BNSF's argument that topper agent application is necessary for safe transportation, Coal Shippers claim that FRA would require the measures if safety demanded them.<sup>176</sup> Coal Shippers argue that BNSF, by asserting that coal dust is freight that needs to be secured, "is really advocating the abolishment of the use of open top cars to haul bulk commodities."<sup>177</sup> Citing evidence from the prior docket for the proposition that all commodities create dust, they claim that BNSF's position would result in a "grinding halt" of the nation's commerce.<sup>178</sup> Coal Shippers also take issue with BNSF's claim that dust is freight.<sup>179</sup> Finally, Coal Shippers dispute BNSF's claim that tariff compliance will not reduce its maintenance costs, citing a prior statement by BNSF that maintenance savings would exceed the cost of topper agents.<sup>180</sup>

In this case, we do not find it unreasonable that the tariff places responsibility for compliance costs on the affected shippers, rather than requiring BNSF to incur the costs initially and then pass them back to the shippers through increased transportation rates. Carriers may

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<sup>170</sup> BNSF Reply 22-24.

<sup>171</sup> Id. at 22-23.

<sup>172</sup> Id. at 24.

<sup>173</sup> BNSF Reply, V.S. Bobb 6-7.

<sup>174</sup> Coal Shippers Reply 14.

<sup>175</sup> Id. at 14-15.

<sup>176</sup> Coal Shippers Rebuttal 12-13.

<sup>177</sup> Id. at 13-14.

<sup>178</sup> Id. at 14.

<sup>179</sup> Id. at 14 n.38.

<sup>180</sup> Id. at 18-19 (citing BNSF Reply, V.S. VanHook 32, Ark. Elec. Coop. Corp.—Pet. for Declaratory Order, FD 35305.)

require shippers to undertake certain loading requirements at their own expense. See Bd. of Trade of Chi., 220 I.C.C. at 761 (finding that shippers were responsible for costs of installing grain doors on railcars). The Board explained in Coal Dust I, slip op. at 11, 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.”

Contrary to Coal Shippers’ argument, the coal dust suppression measures set forth in the safe harbor do not amount to the type of unnecessary special service that the ICC found unreasonable in Radioactive Materials. The ICC in Radioactive Materials found unreasonable the railroads’ tariff requirement that nuclear waste must be transported on special trains. 359 I.C.C. at 74-75. It explained that the Nuclear Regulatory Commission and USDOT had promulgated comprehensive regulations establishing safety standards for rail transportation and handling of nuclear waste that did not require special trains, and found that the additional requirement for special train service imposed by the railroads did not materially improve safety. Id. at 72-75.

The Board has found that PRB coal dust is a harmful ballast foulant, Coal Dust I, slip op. at 7, and that coal dust fouling could contribute to future accidents by destabilizing tracks. Id. at 8. The Board therefore concluded that carriers could establish loading requirements to reduce coal dust loss. Id. at 10-11. In reaching these conclusions, the Board addressed shipper claims that coal has historically been carried in open-top railcars by stating that carriers could change their rules in response to changing circumstances. Id. at 11. The fact that there are no FRA regulations explicitly governing coal dust does not preclude carriers from taking steps on their own to address their concerns. In any event, USDOT supports the safe harbor as reasonable and fully consistent with FRA regulations.<sup>181</sup> Radioactive Materials does not demand a different outcome.

The shippers’ other arguments also fail.<sup>182</sup> There is no double payment for maintenance, as Coal Shippers suggest. The loading requirement helps to reduce ballast fouling, but it does not replace maintenance activities. It therefore cannot be characterized as a double payment. Nor does having shippers bear the cost of loading requirements violate any principles underlying rate regulation, as AECC claims. If a shipper believes it has the basis for reducing BNSF’s rate because the reduction in coal dust emissions will reduce BNSF’s costs or for other reasons, it may file a complaint against BNSF’s rates.

We understand that shippers are concerned about BNSF’s incentives to consider the costs of compliance, but as discussed above we believe that the cost of spraying these selected topper agents is not unreasonable because the measure is designed to promote reliable rail transportation services. Further, BNSF does have an incentive to consider compliance cost given the

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<sup>181</sup> USDOT Opening 5.

<sup>182</sup> Shippers have not submitted evidence sufficient to prove an industry practice of carriers paying for coal dust mitigation, and as explained above, carriers may require shippers to undertake certain loading requirements at their own expense.

competitive environment PRB coal faces. We also explained that under the terms of the tariff, BNSF must give equally effective, but less expensive, alternatives proposed by a particular coal shipper fair consideration.

### Liability Provision

The tariff states that “[a]ny product including topper agents, devices or appurtenance utilized by the Shipper or Shipper’s mine agents to control the release of coal dust shall not adversely impact railroad employees, property, locomotives or owned cars.”<sup>183</sup> On opening, BNSF argues that this liability provision is reasonable.<sup>184</sup> BNSF claims that because shippers and their mine agents control the loading process, they should be responsible for consequences of loading practices; according to BNSF, the fact that BNSF has established a safe harbor should not shift shippers’ responsibility to load in a safe manner that does not harm BNSF employees or property.<sup>185</sup> BNSF argues that the intent of the liability provision is only to hold shippers responsible for negligent or improper use of toppler agents.<sup>186</sup> Because BNSF tested the approved toppler agents to ensure they are not dangerous or injurious to railcars if properly used, BNSF claims that no liability issues should arise assuming the toppler agents are properly used.<sup>187</sup> BNSF claims that it also intends that the liability provision make clear that shippers proposing alternative methods must show that the alternative will not be hazardous to BNSF employees or property, which it asserts is a reasonable objective.<sup>188</sup>

Ameren Missouri, Coal Shippers, and NCTA argue on opening that, because of BNSF’s role in the Super Trial and selection of approved agents, BNSF should be responsible for its own acts and applicable law should determine liability.<sup>189</sup> Ameren Missouri further argues that the provision conflicts with tort law principles.<sup>190</sup>

On reply, BNSF claims that the shippers misunderstand the liability provision.<sup>191</sup> According to BNSF, the liability provision would hold shippers liable only for negligent or improper use of topplers because the safe harbor toppler agents are not dangerous when properly

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<sup>183</sup> BNSF Opening, Ex. 1 at 3.

<sup>184</sup> BNSF Opening 26-27.

<sup>185</sup> Id.

<sup>186</sup> Id. at 27.

<sup>187</sup> Id.

<sup>188</sup> Id.

<sup>189</sup> Ameren Missouri Opening 4-7, 11-12; Coal Shippers Opening 38-39; NCTA Opening 14-16.

<sup>190</sup> Ameren Missouri Opening 4, 7-11.

<sup>191</sup> BNSF Reply 27-28.

used.<sup>192</sup> BNSF argues that the case law cited by the shipper parties is therefore not relevant because those cases involve situations where a railroad attempted to avoid liability for its own negligence.<sup>193</sup> BNSF claims that under Perishable Freight Investigation, 56 I.C.C. 449, 483 (1920), a railroad can establish a liability provision that holds shippers liable for their own or their agents' negligence.<sup>194</sup>

We find that the liability provision is unreasonable because it is overbroad and ambiguous. The provision states that shippers are responsible for any adverse impact of coal dust containment methods and does not distinguish between adverse impacts caused by the negligence of shippers and their agents and the negligence of BNSF and third parties: “[a]ny product including topper agents, devices or appurtenance utilized by the Shipper or Shipper’s mine agents to control the release of coal dust shall not adversely impact railroad employees, property, locomotives or owned cars.”<sup>195</sup> See Union Pac. R.R.—Pet. for Declaratory Order, FD 35504, slip op. at 3-4 (STB served Apr. 30, 2013) (declining to declare indemnification provision in tariff reasonable). On its face, this tariff language, which applies to both the currently approved safe harbor methods and any future approved methods, goes beyond the principle described in Perishable Freight Investigation. BNSF has failed to explain how the language of the tariff can be reconciled with its stated intent that the liability provision would only hold shippers liable for negligent or improper use of toppers. Accordingly, we find this specific language—which is separable from the remainder of the tariff—to be unreasonable. See Union Pac. R.R., slip op. at 4 (“[L]eaving such an ambiguity in place would not adequately inform . . . shippers what service terms they are accepting under the tariff.”).

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

It is ordered:

1. We find that BNSF Price List 6041-B Item 100 is not an unreasonable practice under 49 U.S.C. § 10702 except that tariff language stating that “[a]ny product including topper agents, devices or appurtenance utilized by the Shipper or Shipper’s mine agents to control the release of coal dust shall not adversely impact railroad employees, property, locomotives or owned cars” is an unreasonable practice. BNSF is ordered to remove that language from the tariff.

2. This decision is effective January 12, 2014.

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

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<sup>192</sup> Id. at 28.

<sup>193</sup> Id.

<sup>194</sup> BNSF Reply 28.

<sup>195</sup> BNSF Opening, Ex. 1 at 3.