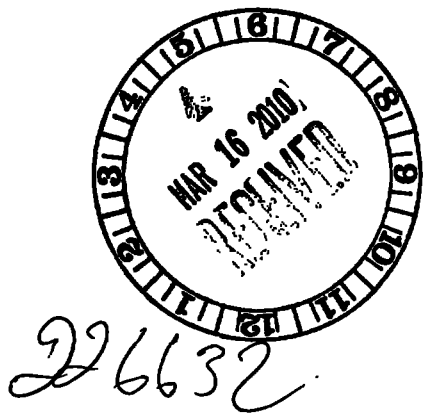
PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Finance Docket No. 35305



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PETITION OF ARKANSAS ELECTRIC COOPERATIVE CORPORATION
FOR A DECLARATORY ORDER

ARKANSAS ELECTRIC COOPERATIVE CORPORATION'S OPENING EVIDENCE AND ARGUMENT

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CONTENTS

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ARKANSAS ELECTRIC COOPERATIVE CORPORATION'S OPENING ARGUMENT

Arkansas Electric Cooperative Corporation ("AECC") 1/ submits this evidence and argument to show that Tariff 6041-B Items 100 and 101 (the "Tariff") issued by BNSF Railway Company ("BNSF") constitutes an unreasonable rule or practice; the Board should permanently enjoin BNSF from enforcing it.

I. PROCEDURAL BACKGROUND

BNSF issued the Tariff on May 27, 2009, to require coal shippers using the Joint Line 2/ or the BNSF Black Hills Sub-Division to take "all steps necessary to ensure that Trains

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1/ AECC is a membership-based generation and transmission cooperative that provides wholesale electric power to electric cooperatives, which in turn serve approximately 490,000 customers located in each of the 75 counties in Arkansas. More information about AECC appears in its Petition For A Declaratory Order, filed October 2, 2009.

2/ The rail line serving the southern Powder River Basin ("PRB"), which is jointly owned by BNSF and Union Pacific Railroad ("UP") and operated and maintained by BNSF, is referred to as the "Joint Line".

handling cars loaded with Coal from any mine origin . . . shall not emit more than an Integrated Dust Value (IDV.2) of" 300 units in the case of the Joint Line and 245 units in the case of the Black Hills Sub-Division. These requirements were originally slated to go into effect as of November 1, 2009.

On October 2, 2009, AECC filed a Petition For A Declaratory Order, asking the Board to institute a declaratory order proceeding under 49 USC 721 and 5 USC 554 (e) and to declare that the Tariff constitutes an unreasonable rule or practice and an illegal refusal to provide service. In its Reply to the Petition, BNSF asked the Board to institute a declaratory proceeding and declare that the Tariff is reasonable.

With its Petition For Declaratory Order, AECC also filed a Petition for A Stay, asking the Board to enjoin enforcement of the Tariff pending resolution of the Petition For Declaratory Order. However, in reply to the Petition For A Stay, BNSF suspended the effectiveness of the Tariff until August 1, 2010, mooting the need for a stay. Therefore, AECC withdrew its Petition For A Stay.

The Board instituted this declaratory order proceeding by Decision served December 1, 2009.

II. SUMMARY OF ARGUMENT

BNSF claims that the Tariff is justified because fugitive coal dust has such a detrimental effect on track stability that it caused two derailments on the Joint Line in May 2005. The evidence establishes, however, that the derailments were caused by BNSF's poor maintenance practices, exacerbated by site-specific infrastructure and drainage issues, and not by coal dust. By trying to force its customers to take expensive and unnecessarily drastic steps

to reduce fugitive coal dust, BNSF is diverting attention from the real problem: Its failure to maintain the Joint Line.

Furthermore, BNSF's own data show that it would be more efficient for BNSF to address coal dust issues through proper maintenance practices than it would be to require coal shippers to use expensive dust control techniques on the very large volume of coal at issue. In addition, BNSF's monitoring scheme cannot determine with reasonable accuracy whether particular trains meet or violate the IDV.2 standards set by the Tariff, and appears to provide several avenue through which the monitoring program could produce discriminatory impacts against UP and its customers.

III. LEGAL STANDARDS

A railroad has a statutory obligation to provide transportation on reasonable request. 49 U.S.C. § 11101 ("[a] rail carrier ... shall provide the transportation or service on reasonable request"). A railroad is also obligated to establish reasonable rules and practices. 49 U.S.C. § 10702 ("[a] rail carrier providing transportation or service ... shall establish reasonable ... rules and practices on matters related to that transportation or service"). The Board has jurisdiction to review railroad practices and to order a railroad to modify or terminate unreasonable practices. 49 USC § 10704 ("When the Board, after a full hearing, decides that a . . . rule, or practice of that carrier, does or will violate this part, the Board may prescribe the . . . rule, or practice to be followed. The Board may order the carrier to stop the violation. When a . . . rule, or practice is prescribed under this subsection, the affected carrier . . . shall . . . observe the rule or practice prescribed by the Board.").

Whether a particular practice is unreasonable depends upon the facts and circumstances of each case. As the Board has explained, "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.'" North America Freight Car Association, et al. v. BNSF Railway Company, STB Docket No. 42060 (Sub-No. 1), 2007 STB LEXIS 38, at *18 (STB served Jan. 26, 2007) (quoting Granite State Concrete Co. v. STB, 417 F.3d 85, 92 (1st Cir. 2005)). See also WTL Rail Corp.--Pet. For Dec. Order and Interim Relief, STB Docket No. 42092, slip op. at 6 (STB served Feb. 17, 2006) ("The statute does not specifically define what constitutes an unreasonable practice. ... The agency has developed no single test for judging whether a particular practice is unreasonable, leaving that fact-specific inquiry to a case-by-case analysis."); Capitol Materials Incorporated--Petition For Declaratory Order--Certain Rates And Practices Of Norfolk Southern Railway Company, STB Docket No. 42068, 2004 STB LEXIS 227, *15 (STB served Apr. 12, 2004) ("Whether a particular practice is unreasonable typically turns on the particular facts.").

Although there is no single test for determining whether a particular practice is unreasonable, the concept of reasonableness "has long been associated with the balancing of costs and benefits." International Union, United Auto., Aerospace & Agric. Implement Workers v. OSHA, 938 F.2d 1310, 1319 (D.C. Cir. 1991) ("courts have often taken the word "reasonable" in a statute to require that burdens be justified by the resulting benefits") (citing Consolidated Rail Corp. v. ICC, 646 F.2d 642, 648 (D.C. Cir. 1981), cert. denied, 454 U.S. 1047 (1981)).

Accordingly, the mere assertion by a railroad that a particular practice is reasonable based upon safety concerns is inadequate. The safety measures implemented by a railroad to address those concerns must be reasonable, "which means first, that they produce an expected safety benefit commensurate to their cost; and second, that when compared with other possible safety measures, they represent an economical means of achieving the expected safety benefit." Consolidated Rail, 646 F.2d at 648. In Consolidated Rail, the court upheld the ICC's decision to cancel a tariff that required shippers to use special trains to transport radioactive materials, finding that the tariff, which was "'several times as costly as regular service," provided "no cognizable safety benefit" and was therefore unreasonable. Id at 645. (quoting Trainload Rates on Radioactive Materials, Eastern Railroads, 362 I.C.C. 756 (Investigation and Suspension Docket No. 9205) (served May 2, 1980)).

Pursuant to 49 USC § 11101, a railroad is required to provide transportation or service on reasonable request. Implicit in this obligation is a duty on the part of the railroad to maintain the rail line. See Railroad Ventures, Inc.--Abandonment Exemption--Between Youngstown, OH, and Darlington, PA, In Mahoning and Columbiana Counties, OH, and Beaver County, PA, STB Docket No. AB-556 (Sub-No. 2X), 2008 STB LEXIS 223 (STB served Apr. 28, 2008) (discussing the "general proposition that, where shippers have requested service, a carrier must either keep its track in operating condition or promptly obtain authority to be relieved of the common carrier obligation"); Brotherhood of Locomotive Engineers v. Staten Island Rapid Transit Operating Authority, Finance Docket No. 29011, 1979 ICC LEXIS 17, at *19 (ICC Nov. 8, 1979) (holding that city assumed railroad's obligation to "furnish and maintain adequate

transportation and transportation facilities, including rail, ties and equipment for the movement of property in interstate commerce") (citing 49 USC § 11101).

IV. ARGUMENT

A. BNSF's Problem Is Not Fugitive Coal Dust; The Problem Is Poor Maintenance.

BNSF's public justification for its proposed Tariff has focused on claims that fugitive coal dust caused two derailments on the Joint Line in May 2005. In its response to AECC's Petition For A Declaratory Order, BNSF blames these derailments on "weakened track structure caused primarily by a combination of coal dust and heavy flooding." BNSF Railway Company's Reply To Arkansas Electric Cooperative Corporation's Petition For A Declaratory Order ("BNSF Reply to Petition"), at p. 4.

However, as discussed in greater detail in the Verified Statement of Douglas G. De Berg (De Berg VS), and in the Verified Statement of Michael A. Nelson (Nelson VS), a review of events preceding the derailments, as well as evidence regarding the derailments themselves, indicates that the derailments did not result from coal dust as BNSF has claimed. Instead, they resulted from poor maintenance practices, exacerbated by site-specific infrastructure and drainage issues. By trying to force its customers to take expensive measures to reduce fugitive coal dust, BNSF is diverting attention from the real problem: Its failure to maintain the Joint Line.

1. BNSF Maintenance Practices On The Joint Line Have Been Poor.

In 2003, Union Pacific Railroad ("UP"), the co-owner and principal user of the Joint Line, [redacted]

[redacted]

[redacted] See Nelson VS.

Prior to the derailments, [redacted]

[redacted] When the derailments occurred in May 2005, blaming them on coal dust [redacted] See Nelson VS.

However, from an engineering perspective, BNSF's description of the mechanism through which it seeks to fault coal dust for the Joint Line derailments is basically incomprehensible. As explained in greater detail in De Berg VS, the rails and ties of a properly designed and constructed rail line rest on layers of ballast, subballast, and prepared subgrade, supported by a drainage system appropriate for local conditions. The elements of the track structure provide physical support for the loadings imposed by trains traveling over the track. Ever since the invention of the railroad, the need to perform regular maintenance on the track structure has been recognized. Over time, passing traffic tends to wear out not only the rails and ties, but also causes the ballast material to break down. This wear in track structure elements is particularly significant for a heavy-haul line, like the Joint Line, where tremendous MGT levels are involved.

In addition to wear, the track substructure is subject to various forms of external contamination that can reduce its functionality. For example, ballast can become contaminated from locomotive sand, ambient dust (including, <u>but certainly not limited to</u>, coal dust), organic

matter, rail grinding dust, and dirt and debris falling off of moving trains. [redacted] See Nelson VS. Thus, the periodic cleaning of ballast is a routine part of railroad maintenance, whether or not a line moves coal. Every railroad is required by law to inspect the integrity of the track structure and substructure and ensure its compliance with specific standards enforced by FRA.

Coal dust is one of a number of well-known challenges to the track structure that railroads routinely handle in the course of inspections and maintenance. Coal dust is not some mysterious substance that magically and unexpectedly undermines the track structure and causes it to fail.

Another, and major, maintenance challenge is water. As Mr. De Berg says, "Water is the enemy of stable track." The Joint Line derailments occurred in the Spring, when the ground becomes wet from melting snow, the release of frost, and seasonal rain. Without proper drainage, wet conditions can undermine rapidly the integrity of the track structure. "Soft" conditions mean that the track is not adequately supported, so that it can move laterally and vertically out of proper position. This creates the potential for derailment, and the need for particular attentiveness in inspection and maintenance activities.

An important consideration in understanding BNSF's problems with "soft track conditions" is [redacted] With proper construction techniques, including use of additives and compaction as well as appropriate track structure specifications, stable construction on such soils is generally feasible. However, as Mr. Nelson observes in his

Verified Statement, at the same time BNSF was publicly blaming coal dust for the derailments,

[redacted] 3/

Coal dust undoubtedly is a part of the maintenance picture on the Joint Line, as is the degradation of ballast due to heavy MGT loads and other sources of ballast fouling. But wet, fouled ballast existed everywhere on the Joint Line in the Spring of 2005; it was not unique to the two locations where derailments occurred.

What was special about those two locations, that caused derailments to happen there?

2. Characteristics Of The Sites Contributed To The Derailments

The May 2005 derailments are described in some detail in the Nelson VS and De Berg VS. [redacted]

3/ In discovery, AECC asked BNSF for information about the construction of the portions of the Joint Line where the derailments occurred. BNSF objected and refused to produce this (and other) requested information. AECC therefore filed a Motion To Compel Discovery From BNSF Railway Company on February 11, 2010. After BNSF opposed the motion, Thomas Stilling, the Discovery Facilitator appointed by the Board, convened a conference between counsel for AECC and counsel for BNSF. At that conference BNSF agreed (among other things) to produce the requested drawings, plans, etc., to the extent available, but stated that it was unlikely they would be produced before the due date for Opening Evidence and Argument. So far, AECC has not received this information. If AECC receives further information from BNSF about construction quality issues, which casts light on the cause of the derailments, AECC will submit such information with a subsequent filing (with leave of the Board if necessary).

[redacted]

[redacted]

The occurrence of two derailments a few hours and a few miles apart is not likely to have been a coincidence. There was rain-soaked, fouled ballast at these locations, as BNSF asserted in placing the blame on coal dust, but the Joint Line had an abundant quantity of rain-soaked, fouled ballast in the Spring of 2005.

A closer examination of the available evidence, much of it produced by BNSF in discovery, shows four features that are common to the two derailment sites – but not typical of the remainder of the Joint Line - that implicate derailment causes other than coal dust.

These four unique features of the two derailment sites are: [redacted] Each of these is discussed further below:

[redacted]

[redacted]

4/ While the engineer cited inadequate compaction as an example, the lax conduct and monitoring that would permit inadequate compaction to occur would also prospectively permit failure to comply with other engineering standards, including but certainly not limited to the quantities and qualities of materials used relative to design specifications.

[redacted]

[redacted]

3. Specific Problems At Each Derailment Site

The causes of the derailments are discussed in detail in De Berg VS. Mr. De Berg's conclusion is as follows:

> While unstable track resulting from a number of factors was a contributor to the accident, the main cause was a lack of maintenance and the failure of BNSF maintenance and inspection personnel to properly protect train operations with temporary speed restrictions or removal of track from service until proper repairs can be made.

Specific information provided by BNSF and UP in discovery support that conclusion.

UP Derailment - Transcripts of communications involving BNSF dispatchers indicate that [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

See Nelson VS.

Under these circumstances, it is totally implausible to ascribe this derailment to coal dust, rather than bad maintenance practices. 5/ Whatever the original source of the rough track may have been, BNSF had forewarning of the problem, and ample opportunity to remedy it before the passage of the UP train. Under Section 10101(9), the Board has a mandate "...to

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5/ Indeed, [redacted]

encourage honest and efficient management of railroads". The Board should not permit a railroad to excuse such a blatant failure of its own maintenance procedures and performance by passing the buck to its customers.

BNSF Derailment - Contrary to BNSF's characterizations of heavy coal trains sinking into fouled ballast, the evidence examined at the time by BNSF and UP indicated that [redacted] See Nelson VS.

While BNSF proclaimed the cause of this derailment to be loss of gage (fixed track separation distance) due to breakage of "centerbound" ties caused by fouled ballast, a closer look at the evidence reveals once again that BNSF's maintenance practices were at fault. [redacted] See Nelson VS.

In this derailment, the culpability of BNSF's maintenance practices is further highlighted by [redacted] See Nelson VS. This is explained further in De Berg

VS. Furthermore, BNSF's claim that the ties broke due to centerbinding indicates that BNSF failed to perform adequately the regular inspections that should have detected centerbinding, and the corrective maintenance needed to maintain proper support from ballast under the ends of the ties. Thus, deficient maintenance of the Joint Line by BNSF, not coal dust, caused the BNSF derailment, as it did the UP derailment.

4. Summary Of Conclusions: The Two Derailments In The Spring of 2005 Do Not Prove That An Obligation Needs To Be Imposed On BNSF's Customers To Reduce Fugitive Coal Dust; They Prove That BNSF Was Not Performing Proper Maintenance.

In short, the derailments did not occur randomly on the Joint Line. They occurred at locations that possess unique combinations of factors other than coal dust that could be expected to create failure modes under the conditions prevailing in mid-May 2005 on the Joint Line. Even then, they would not have occurred if BNSF had performed adequately the maintenance it knew beforehand was needed at those two locations. As shown in Nelson VS, if these two derailments had been caused by fugitive coal dust, which is present throughout the Joint Line, it is highly improbable that they would have occurred at two locations with such similar characteristics and documented maintenance failures, rather than elsewhere on the Line.

Evidence supplied by BNSF and UP and discussed further in Nelson VS further corroborates the role of maintenance and construction deficiencies unrelated to coal dust as causes of observed roadbed instability. Photographic evidence of [redacted] all point to construction and maintenance problems unrelated to coal dust.

As Mr. De Berg explains:

> BNSF operates and maintains the Joint Line and has direct responsibility for the safety of the track structure. It is mandated by the Federal Railroad Administration that proper track inspections be performed and remedial actions be taken to maintain the track in a safe operating condition. Unstable track in wet conditions or when frost leaves the track structure is a common problem in the northern area of the United States, which includes this area of Wyoming. The conditions and factors mentioned above exacerbate problems of unstable track. BNSF had indications that the problems were serious and failed to take the proper remedial actions as required by FRA regulations and standard industry practice. This failure to protect the track was the root cause of the accidents.

B. BNSF's Coal Dust Tariff Is Unreasonable.

BNSF is asking the Board to approve its Tariff and its specific fugitive coal dust standards. BNSF Reply To Petition, at pp. 8-9, 11. In trying to justify this Tariff, which would impose tremendous new costs on coal shippers using the Joint Line and the Black Hills Sub-Division, BNSF has relied repeatedly on its claim that coal dust caused the 2005 derailments. 6/ However, as the discussion in Part A, above, shows, what the derailments prove is that BNSF has failed to perform proper track maintenance, not that fugitive coal dust is a "threat" that *coal shippers should be required to address.*

Presumably BNSF will present expert testimony and other evidence in its Opening to explain why the specific IDV.2 standards (300 and 245 units) were selected, what

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6/ See, for example, BNSF Reply To Petition, at pp. 1 ("the whole purpose of coal dust mitigation is to ensure the safety and efficiency of coal transportation, an objective that is in the public interest and in the interests of railroads and shippers alike"), 4 (the derailments, which resulted "in considerable disruption in service and congestion" were the result of "weakened track structure caused primarily by a combination of coal dust and heavy flooding"), 8 ("There can be no serious dispute that the problem of coal dust accumulation on BNSF's rail lines has posed a serious challenge to safe and efficient operations on the Joint Line and BNSF's other PRB coal lines").

effect BNSF thinks achieving these standards would have on the operation of the Joint Line and the Black Hills Sub-Division, how much BNSF expects that this reduction in fugitive coal dust will reduce its maintenance expenses for these lines, what methods are available (and at what cost) to reduce fugitive coal dust, how accurately BNSF can measure fugitive coal dust with its monitoring stations, and otherwise to justify the requirements that it is asking the Board to endorse.

Presumably, too, BNSF will disclose how it plans to enforce its Tariff, and in particular what sanctions it intends to impose on shippers that fail to meet the dust-reduction standards. In its response to AECC's petition seeking to stay the effectiveness of the Tariff pending the outcome of this proceeding, BNSF stated that it "has not announced plans for enforcing compliance with its coal dust emissions standards." BNSF Railway Company's Reply In Opposition To Arkansas Electric Cooperative Corporation's Petition For A Stay ("BNSF Reply To Stay"), at p. 2. See, also, Id., at p. 12. If BNSF refuses to transport coal cars on the Joint Line or the Black Hills Sub-Division for customers that have failed to meet the IDV.2 standards, that will clear implicate BNSF's common carrier obligation under 49 USC 11101.

AECC will undoubtedly have more to say on this subject after BNSF presents its evidence and argument in support of its Tariff. In this present filing, AECC will address two issues that must be considered in any evaluation of the reasonableness of the Tariff:

- In subpart 1, below, AECC demonstrates that it would cost more to reduce fugitive coal dust to the level specified by BNSF than BNSF would save in maintenance costs as a result; thus, reducing coal dust would be inefficient way to address the maintenance problems on the subject lines.

- In subpart 2, AECC shows that BNSF's monitoring scheme cannot determine with reasonable accuracy whether particular trains meet or violate the IDV.2 standards set by the Tariff; furthermore, the Tariff provides BNSF with virtually unlimited opportunities and discretion to operate the system in a manner that favors BNSF and its customers, and discriminates inappropriately against UP and its customers.

1. It Would Be More Cost-Effective For BNSF To Comply With Its Maintenance Obligations Than For Its Customers To Reduce Fugitive Coal Dust By An Arbitrary Amount.

As the discussion in Part A, above, shows, an effective track maintenance program on a line like the Joint Line must deal with coal dust. This may cause the cost of a proper maintenance program to be greater than it would be on a similar line that did not have any fugitive coal dust. Therefore, reducing fugitive coal dust may reduce maintenance expenses. However, it will cost money to reduce the fugitive coal dust.

If BNSF were proposing to pay the cost of reducing fugitive coal dust in accordance with its Tariff, that would imply that BNSF was convinced that the cost of doing so would be less than the resulting reduction in maintenance costs. But that's not what BNSF is proposing. BNSF wants to put the cost burden of reducing fugitive coal dust on its customers, while BNSF reaps the benefit of reduced maintenance costs. Leaving aside for the moment whether it is "reasonable" for a railroad to shift the cost burden in this manner, 7/ at the very

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7/ To some extent a reduction in railroad operating costs, including maintenance costs, may later be reflected in reduced rates to shippers. BNSF, however, has not committed to reducing its rates to customers who reduce fugitive coal dust, so the Board need not consider this issue at this time.

least the Board needs to determine whether the cost of reducing fugitive coal dust by a certain amount is less than the maintenance cost savings that such a reduction would cause.

As soon as we consider this issue, we come face to face with the problem that BNSF has not provided a rationale for the particular limits on fugitive coal dust that the Tariff would impose. The BNSF Tariff calls for shippers to take actions that would reduce previous fugitive coal dust levels by 85-95 percent. BNSF does not appear to have tested the reasonableness of the reduction requirement it seeks to impose. BNSF has apparently not performed any marginal analysis to ensure that that the incremental benefits associated with achieving the reduction it has specified justify the corresponding incremental costs. As a result, the IDV.2 values BNSF seeks to implement seem to be based on BNSF's untested and arbitrary assumption that a reduction of 85-95 percent is the appropriate and cost-effective reduction for BNSF to seek.

BNSF's own estimates demonstrate that achievement of the steep coal dust reductions mandated by the Tariff are economically unsound, and fail the relevant public interest standard administered by the Board. BNSF's own data show that the costs to shippers of complying with the Tariff would greatly exceed whatever benefit BNSF would receive in the form of reduced maintenance expenses.

As discussed in more detail in Nelson VS, BNSF's estimates of the maintenance cost impacts of coal dust generally have ranged between [redacted], while BNSF's own figures show that the cost to shippers to comply with BNSF's coal dust reduction standard would be in the range of [redacted] annually. This is consistent with the estimate AECC made, before the beginning of these proceedings, that BNSF

Tariff would impose on coal shippers additional costs in excess of $100 million annually. AECC Petition for Declaratory Order, at p. 5

Put simply, the Tariff would transfer to coal shippers a portion of BNSF's maintenance costs irrespective of the fact that the costs imposed on shippers would greatly exceed the savings achieved by BNSF. Such an increase in resource costs would be inconsistent with the public interest, and establishes the Tariff's lack of reasonableness .8/

In fact, the relative cost of BNSF's Tariff is even greater than this, because it does not take account of the fact that coal mines and shippers are already taking voluntary actions that will achieve most of the reduction in fugitive coal dust that BNSF claims to be seeking through the Tariff. See Nelson VS.

Under Section 10101(5), the Board has a clear mandate ". . . to foster sound economic conditions in transportation". In the context of coal dust reductions, this would mean considering the overall costs and benefits associated with achieving specific reduction levels, and not just the magnitude of prospective rail maintenance savings sought by BNSF.

BNSF'S own figures show that the costs BNSF's coal dust reduction requirements would impose on coal shippers greatly exceed the benefit BNSF would receive as a result of reduced maintenance costs.

8/ To meet the applicable public interest standard of economic soundness, the Tariff would need to not only produce benefits in excess of its costs, but also maximize the excess of benefits over costs among other dust control approaches.

2. BNSF Has No Effective Way To Measure The Effectiveness Of Coal Dust Suppression Measures.

Even if it were desirable to reduce fugitive coal dust to the specific levels prescribed by BNSF in the Tariff, the Tariff could not achieve its goal unless fugitive coal dust from particular trains could be accurately measured to determine whether each customer was meeting the standard. In fact, however, BNSF has no way to determine with reasonable accuracy whether customers are in compliance with its standards.

BNSF's monitoring system does not yield a reproducible result for any given train. Thus, as discussed in more detail in Nelson VS: [redacted] See Nelson VS.

Furthermore. the monitoring system contains no safeguards that would prevent BNSF from conducting monitoring in a manner that would be improperly discriminatory against UP and its customers. For example, [redacted]

[redacted] as discussed in Nelson VS.

V. CONCLUSIONS

The Board should declare that the Tariff constitutes an unreasonable rule or practice and an illegal refusal to provide service, and should order BNSF to permit shippers to transport coal on the Joint Line and Black Hills Sub-Division without such restrictions.

Respectfully submitted,

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Dated: March 16, 2010

VERIFIED STATEMENT OF
MICHAEL A. NELSON

VERIFIED STATEMENT
OF
MICHAEL A. NELSON

1. Qualifications

My name is Michael A. Nelson. I am an independent transportation systems analyst with 30 years of experience in railroad competition and coal transportation. My office is in Dalton, Massachusetts. Prior to February 1984, I was a Senior Research Associate at Charles River Associates, an economic consulting firm in Boston, Massachusetts.

I have directed or participated in numerous consulting assignments and research projects in the general field of transportation. My work typically involves developing and applying methodologies based on operations research, microeconomics, statistics and/or econometrics to solve specialized analytical problems.

A considerable portion of my work has involved the analysis of railroad competition and coal transportation issues. On behalf of The Denver and Rio Grande Western Railroad (DRGW), Rio Grande Industries and the merged SP/DRGW system, I performed analyses of competitive issues in many of the western merger proceedings of the 1980's and early 1990's, including SP/ATSF, UP/MKT, SP/DRGW, UP/CNW and SP's acquisition of authority to purchase the CP/Soo line between Kansas City and Chicago (ICC Finance Docket No. 31505). I subsequently advised CP regarding competitive issues associated with the Conrail breakup transaction (STB Finance Docket No. 33888), and provided analytical support for CP in its settlement with NS and CSX. I provided testimony regarding competitive issues on behalf of the Committee to Improve American Coal Transportation (a coal shipper group) in the proceeding that defined the Board's current merger rules, and on behalf of Arkansas Electric Cooperative Corporation (AECC) in DME's acquisition of IMRL/ICE.

A second major focus of my work has been the study of issues related to Powder River Basin (PRB) rail competition and the rate/service options it provides to shippers. In 1998, I provided testimony to this Board on behalf of the Mid-States Coalition for Progress regarding the proposal for a new rail line to serve the PRB submitted by the Dakota, Minnesota & Eastern Railroad (DME) in Finance Docket No. 33407. Since that time, I have advised coal users individually and in groups regarding the viability and competitive implications of the DME proposal, as well as several alternative options that would avoid the difficulties associated with the DME proposal while enhancing competition relative to that provided by the Joint Line. In the final year of Board oversight of the UP/SP merger, I provided testimony on behalf of the Cowboy Railroad Development Company (CRDC), a group of utilities pursuing development of a new PRB outlet via Kansas City. I developed information to assist coal users in responding to the coal supply problems created by the May 2005 derailments and subsequent rail throughput constraints on the PRB Joint Line, and have worked extensively on the development of technically and economically feasible options for an ultra-efficient, "World Class" line in the corridor between the PRB and Kansas City. Portions of this work were presented in September 2006 at the conference and annual meeting of the National Coal Transportation Association. I have conducted detailed analyses of PRB coal transportation options for approximately 40 existing and potential powerplants, and, on behalf of AECC, submitted testimony to this Board in Docket No. 42104/Finance Docket No. 32187 that analyzed the efficiency of various rail routes for transporting coal from the PRB to the Independence Steam Electric Station (ISES) at Newark, AR. I have performed analyses and developed forecasts of PRB rates that include detailed consideration of operational issues and productivity-enhancement measures, and prepared an

analysis of fuel use on PRB coal movements that was submitted to this Board in Ex Parte No. 661.

This work has provided me familiarity with numerous aspects of PRB rail competition and the Joint Line.

I have also consulted to a number of shippers, railroads (U.S., Canadian and Mexican) and governmental bodies on various other railroad issues. Outside of my rail experience, I have analyzed the cost structure of the U.S. Postal Service in five dockets before the Postal Rate Commission. In addition, I have assisted in the preparation of numerous other verified statements presented before various regulatory and legal bodies, and authored many technical reports and articles in transportation journals.

I received a bachelor's degree from the Massachusetts Institute of Technology in 1977. In 1978, I received two master's degrees from MIT, one in Civil Engineering (Transportation Systems) and one from the Alfred P. Sloan School of Management, with concentrations in economics, operations research, transportation systems analysis and public sector management. My curriculum vitae is attached as Appendix A.

2. Subjects Covered in This Statement

I have been asked by AECC to analyze and comment on several issues related to the deposition of fugitive dust from PRB coal trains, and assess the reasonableness of Tariff 6041-B Items 100 and 101 (the "Tariff") issued by BNSF Railway Company ("BNSF"). This assessment addresses various rationales BNSF has cited for the Tariff, including the allegation that coal dust was responsible for the well-publicized Joint Line derailments of May 2005, and the magnitude of the extra maintenance costs BNSF incurs as a result of coal dust. It also addresses issues associated with the monitoring system BNSF has proposed.

To address these issues, this statement begins by presenting relevant background information regarding the market and railroad competition for the movement of PRB coal. It demonstrates the extraordinarily improbable nature of BNSF's claims regarding the role of coal dust in causing the Joint Line derailments, and finds that those derailments resulted from a combination of problems stemming from inadequate maintenance, substandard construction that BNSF itself has identified, track modulus issues and drainage issues that were exposed in the wet conditions prevailing on the Joint Line in May 2005.

It then addresses BNSF's claims regarding the effects of coal dust on its costs, which, even if taken at face value, demonstrate that the Tariff is inconsistent with the public interest standard administered by the Board.

Finally, it investigates the monitoring system BNSF would utilize to implement the Tariff. This investigation reveals that the monitoring system not only is inconsistent in a manner conceded by BNSF that renders it unsuitable for its proposed use, but also possesses a series of traits that do or readily could allow improper discrimination in favor of BNSF and its customers at the expense of UP and its customers. Since the measurements from the monitoring system can be determined or heavily influenced by decisions and actions controlled entirely by BNSF, the entire proposition that the responsibility for coal dust can be placed on shippers in the manner BNSF proposes is undermined.

Based on the foregoing considerations, this statement concludes that the Tariff is unreasonable, and itemizes further actions that appear worthy of pursuit to mitigate legitimate concerns about coal dust that would avoid the Tariff's fatal flaws. It also discusses actions that the Board may wish to consider in light of the adverse implications for PRB rail competition indicated by the information presented herein.

3. PRB Background

The PRB is the largest single source of coal in the U.S., and the coal it provides is used extensively in the generation of electricity. In 2008, production from the Wyoming portion of the PRB alone amounted to 451.7 million tons,[1] and is projected by the U.S. Department of Energy/Energy Information Administration to increase to over 470 million tons by 2015.[2] On a tonnage basis, it accounted for 38.5 % of total U.S. coal production in 2008, with a projected increase to over 40% by 2015.

Aside from the possible use of local trucking, conveyors or mine-mouth siting by the small portion of the PRB coal market accounted for by powerplants in the immediate vicinity of the Basin, the vast preponderance of PRB coal has no viable transportation alternatives other than the rail services provided by BNSF and UP. Given the high annual tonnage involved and distances from Wyoming over which the coal must be moved to reach specific markets, the PRB is the largest single source of rail traffic in the U.S.

To get an order-of-magnitude sense of the significance of PRB flows in the universe of U.S. rail traffic, it is illustrative to multiply the annual coal production tonnage of the Basin by the approximate average length of haul to approximate the total net ton-miles accounted for by this traffic. Using the 2008 production of 451,700,000 tons, setting aside 5% as an allowance for local consumption and applying an approximate rail length of haul of 1100 miles to the remainder, PRB traffic accounts for on the order of 472,026,500,000 net ton-miles of rail traffic annually. In comparison, the total movement of freight traffic by Norfolk Southern (NS) in 2008

[1] The Montana portion of the PRB accounted for 44.4 million tons in 2008.
[2] See http://www.eia.doe.gov/oiaf/aeo/supplement/sup_ogc.xls#set5.1118a!C1166 .

amounted to 195,343,113,000 revenue ton-miles,[3] while for CSX the figure was 248,121,469,000 revenue ton-miles.[4] In other words, PRB rail traffic in 2008 accounted for roughly 6.4% more revenue ton-miles than did the entire traffic bases of the NS and CSX systems, combined.

The centerpiece of the rail infrastructure serving the PRB is the Joint Line. This line originally was constructed in the late 1970's by BNSF-predecessor BN, which initially was the sole railroad serving the Basin. Pursuant to ICC orders, BN was required to make available to CNW (which also had applied for authority to construct a line into the Basin) the option to purchase a 50% interest in the line. CNW did so, and from 1984 provided competition to BNSF for traffic originating on the Joint Line.[5]

From the outset, UP provided CNW's outlet for PRB coal CNW originated.[6] This coal exited from the south end of the Joint Line (at Shawnee Junction), travelling over rehabilitated CNW trackage to the vicinity of Van Tassell, WY, thence via the newly-constructed "Connector Line" to UP's mainline at South Morrill, NE. In the UP/CNW merger, UP acquired CNW's position as an originator of PRB coal and co-owner of the Joint Line.

The route via South Morrill provides UP's only outlet for PRB coal. In comparison, BNSF has three outlet possibilities for coal originated on the Joint Line: (a) a route from the south end of the Joint Line via Guernsey, WY; (b) a route from the north end of the Joint Line via Donkey Creek Junction and Edgemont, SD; and, (c) the same route from the Joint Line to Donkey Creek, thence via Gillette, WY to BNSF's "Northern Tier" routes across Montana.

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3 http://www.stb.dot.gov/econdata.nsf/f039526076cc0f8e8525660b006870c9/236d0911463eba10852575a60062291a/$FILE/Norfolk%20Southern%20Railroad%20R-1%20Report%202008.pdf.

4 http://www.stb.dot.gov/econdata.nsf/f039526076cc0f8e8525660b006870c9/04c576903040a68b852575a600519af1/$FILE/CSX%20Railroad%20R-1%20Report%202008.pdf.

5 [redacted]

6 Technically, CNW's PRB activities were conducted by Western Railroad Properties, Inc. (WRPI), which was controlled by CNW.

Pursuant to an agreement originally entered by BN and CNW, BNSF has sole responsibility for performing maintenance of the Joint Line. A portion of such maintenance costs is reimbursed by UP.

3. PRB Rail Competition

Subsequent to the initiation of competitive service by CNW/UP in 1984, the PRB served as a "poster child" for the benefits of competition as envisioned by the Staggers Act. While in recent times the combination of lower rates, better service and investment in needed capacity has been cited as an impossibility by some rail executives,[7] that trifecta was delivered for more than a decade by railroad competition in the PRB.[8]

The initiation of competitive rail service in the PRB enabled UP to match the competitive capabilities of its network against those of BNSF, which previously had enjoyed a monopoly over PRB originations. By virtue of its mergers with MP, MKT and others, UP has efficient routes that are shorter than their BNSF counterparts for most PRB traffic, and its competitive capabilities are extremely strong. For example, from the more southerly mines on the Joint Line, UP's route to/through the major Kansas City rail gateway[9] is approximately 61 miles shorter than BNSF's route. UP also holds mileage advantages for movements over several other rail gateways, including Chicago, Minneapolis, St. Louis and the major Ohio River transload facility at Metropolis, IL.

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[7] Such as NS chairman Wick Moorman, in his comments to the Board in the public hearing held in April 2007 in Ex Parte No. 671, Rail Capacity and Infrastructure Requirements.

[8] It should be noted that the Staggers Act contained a specific directive to FRA to ensure the availability of loan guarantees for CNW's PRB access initiative. See, for example, Interstate Commerce Commission, Finance Docket No. 28934 et al., Initial Decision served October 7, 1980 at Appendix H. The tangible benefits of PRB rail competition provided a direct validation of the Congressional determination that that the entry into the PRB of a rail competitor to BNSF was in the public interest.

[9] The corridor from the PRB to/through Kansas City historically has accounted for well over half of the total volume of PRB rail traffic.

Through the exercise of its competitive capabilities, UP has succeeded in achieving an increasing share of Joint Line traffic. From an initial market share of literally 0 in 1984, UP has grown to the point that it recently has been handling on the order of [redacted] percent of Joint Line tonnage.[10] Coinciding with UP's [redacted] For example, it is understood that BNSF has invested in double-tracking its route from the PRB via Edgemont, SD, and in enhanced staging facilities at Donkey Creek.[13]

In this context, the Board needs to be cognizant of the possibility that BNSF will [redacted]

[10] See, for example, BNSF COALDUST 0015851.
[11] See, for example, BNSF COALDUST 0003172.
[12] [redacted]
[13] See http://www.bnsf.com/employees/communications/railway/pdf/200606.pdf .

[redacted]

Above and beyond its technical merits (or lack thereof) as a method of dealing with the coal dust issue, the BNSF Tariff – or any other attempt by BNSF to impose requirements on UP's Joint Line customers – must not be allowed to function as a Trojan horse that improperly leverages BNSF's control over the Joint Line to undermine UP's competitiveness.

4. PRB Derailments

As reported on UP's website, "(A)t 11:15 p.m. MT, Saturday, May 14, 2005, a BNSF Railway train derailed 15 cars approximately 6 miles north of Bill, Wyoming, on the Southern Powder River Basin Joint Line (SPRB). At 5:27 a.m. MT, Sunday, May 15, a Union Pacific coal train derailed 28 cars approximately 19 miles north of Bill, Wyoming, on the Joint Line."[15] Information provided in discovery by BNSF and UP indicates that [redacted]

[14] See UP-AECCBN-001494 to -001497. [redacted]

[15] See http://www.uprr.com/customers/energy/sprb/updates_2005.shtml .

[redacted]

At the time of these derailments, BNSF publicly ascribed them to problems stemming from fugitive coal dust. However, a review of events preceding the derailments, as well as evidence regarding the derailments themselves, indicates that the derailments did not result from coal dust as BNSF has claimed. Rather, they resulted from [redacted]

[redacted]

[16] [redacted]

[17] See BNSF COALDUST 0003048; 0015797; 0023636.

[redacted] BNSF began to ascribe the derailments to soft track conditions resulting from the fouling of ballast by coal dust.

From an engineering perspective, BNSF's description of the mechanism through which it seeks to fault coal dust for the Joint Line derailments is basically incomprehensible. As explained in greater detail in witness DeBerg's statement, the rails and ties of a properly designed and constructed rail line rest on layers of ballast, subballast, and prepared subgrade, supported by a drainage system appropriate for local conditions. The elements of the track structure provide physical support for the loadings imposed by trains traveling over the track. Ever since the invention of the railroad, the need to perform regular maintenance on the track structure has been recognized. Over time, passing traffic tends to wear out not only the rails and ties, but also causes the ballast material to break down. This wear in track structure elements is particularly significant for a heavy-haul line, like the Joint Line, where tremendous MGT levels are involved.

Less obvious, but still well-known to the railroads, are sources of ballast contamination like locomotive sand and ambient dust. As a result, the periodic cleaning of ballast is a routine part of railroad maintenance. Moreover, as part of routine maintenance a railroad must (by law) take steps to inspect the integrity of the track structure and ensure its compliance with specific standards enforced by FRA.

BNSF's efforts to justify the need for stringent coal dust limitations have relied heavily on [redacted]

[redacted] do not necessarily reflect conditions within the portion of the ballast that actually supports the ties and track. Indeed, regardless of the amount of foreign matter resting on top of the ballast or ties, or even occupying the spaces, or "cribs", between ties, the portion of the ballast that bears the weight of passing trains experiences wear and breakdown of ballast particles. On a heavy-haul line like the Joint Line, such wear generates fouling that may not be visible from the surface, but nevertheless necessitates periodic cleaning. While the surface accumulation of fugitive coal is quite visible, BNSF's analyses [redacted]

Even more significantly, BNSF's rush to fault coal dust for "soft track conditions" neglects to mention the fact that most of the Joint Line was constructed over soils very high in clay, which has poor load-bearing properties when wet. With proper construction techniques, including use of additives and compaction as well as appropriate track structure specifications, stable construction on such soils is generally feasible. However, at the same time BNSF was publicly blaming coal dust for the derailments, [redacted]

[18] [redacted]

[19] [redacted]

[redacted]

In the discussion presented below, information from each derailment is highlighted, and common factors between the derailments are analyzed. The conclusion - that [redacted]

[redacted]

[20] See BNSF COALDUST 0016753, 0016940.

[redacted]

[21] See BNSF COALDUST 0016942.

[redacted]

[22] See UP-AECCBN-001640.
[23] [redacted] BNSF's interest in this type of tie is publicly known - http://www.arema.org/eseries/scriptcontent/custom/e_arema/library/2003_Conference_Proceedings/0059.pdf .
[24] See http://roclatie.com/mrt.htm .

REDACTED

Common Factors in the Two Derailments Ignored by BNSF Dispel The Coal Dust Theory

The occurrence of two derailments separated by small numbers of hours and miles forms a pattern that begs for an intuitive explanation. BNSF rushed into this void by offering the

scenario that the derailments were caused by rain-soaked, fouled ballast, of which it had abundant quantities in May 2005. However, by foreclosing consideration of the roles of factors other than coal dust, BNSF's scenario provides no basis for considering any spot afflicted by rain-soaked fouled ballast to be any more or less likely than any other spot as a potential point of derailment. Under BNSF's scenario, the fouled ballast got wet, the trains started dropping, and they just happened to fall where they did.

A closer examination of the available evidence shows [redacted]

It is important to note that this analysis does not purport to identify unambiguously the specific mode of failure associated with each derailment, and the precise roles of different contributing factors. Rather, it provides a method of processing the information that is still available nearly 5 years after these events to assess the reasonableness of BNSF's coal dust hypothesis, and to gain an improved understanding of why the derailments occurred where they did.

The four unique features of the two derailment sites identified in this analysis include: [redacted] Each of these is discussed further below:

[redacted]

[25] See BNSF COALDUST 0016743.

[26] [redacted]

[redacted]

[27] See UP-AECCBN-0000825.
[28] See UP-AECCBN-0000833.
[29] See BNSF COALDUST 0023526.
[30] See BNSF COALDUST 00002610; 0023530, [redacted]

[redacted]

It is highly improbable that two derailments would have occurred by chance at these two locations – which share several characteristics that are not common elsewhere on the Joint Line -- if they were caused by fugitive coal dust, which is found throughout the Joint Line. This can be demonstrated by probabilistic modeling. This tool permits assessment of the likelihood that the observed outcome was generated randomly through a process driven by the deposition of coal dust. To simplify the analysis, it is assumed that the deposition of coal dust, as well as the occurrence of [redacted] all occur along the Joint Line in a distribution that is essentially uniform. Analytically, the issue is then reduced to the following simple question: if a derailment follows the assumed uniform distribution of the deposition of coal dust, what is the probability that 2 derailments would occur on the [redacted]

[31] [redacted]

[redacted] To perform the needed computation, I reviewed the Joint Line track chart to identify locations where [redacted]

[redacted]

The 8 segments resulting from this selection are shown in bold in the above listing.

For each of those segments, I used an assumed train length of 1.5 miles, and computed the total length of Joint Line track that meets the selection criteria [redacted] to be: 8 x 1.5 = 12.0 miles. I then divided this by an estimated 272.9 Joint Line track-miles in service in the first half of 2005. This yields a probability of 0.044 that a random point on the Joint Line would meet the selection criteria. The probability that two randomly chosen points would meet the criteria is $(0.044)^2 = 0.001936$.

When the likelihood that the theory explains the data is this remote, it's usually time to move to a different theory. Here, it is unreasonable to view the derailments as having resulted to any significant degree from the accumulation of coal dust along the Joint Line, and it is virtually certain the derailments resulted from other factors. They occurred at locations that [redacted]

REDACTED

[redacted]

[32] See BNSF COALDUST 0016474.

[33] [redacted]

REDACTED

[redacted] The repetition of BNSF's argument does not establish its validity, and is entitled to no weight in the context of coal dust issues.

5. [redacted]

If BNSF had performed such an analysis, it would have seen from its own data that the [redacted]

[34] See, for example, BNSF COALDUST 0000170.

[35] [redacted]

[36] See BNSF COALDUST 0020969-991.

[redacted]

[redacted] This is consistent with the estimate that the BNSF Tariff would impose on coal shippers additional costs on the order of $100 million annually, which was submitted by AECC in its Petition for Declaratory Order prior to the beginning of these proceedings.[37]

Furthermore, there are at least two considerations that ensure the [redacted]

[redacted]

[37] That estimate was based on a volume of 400 million tons per year, and a cost of $0.25 per ton.

[38] [redacted]

[39] See BNSF COALDUST 0000666.

Basically, the Tariff would transfer to coal shippers a portion of [redacted].

[redacted]

7. Monitoring System

Even if it were desirable to reduce fugitive coal dust to specific levels, [redacted]

[redacted]

[40] To meet the applicable public interest standard of economic soundness, the Tariff would need to not only produce benefits in excess of its costs, but also maximize the excess of benefits over costs among other dust control approaches.
[41] See BNSF COALDUST 0019925.
[42] See BNSF COALDUST 0021768.
[43] See BNSF COALDUST 0003205+.

[redacted]

[44] [redacted]
[45] See BNSF COALDUST 0020532.
[46] See BNSF COALDUST 0020582.
[47] See BNSF COALDUST 0020229+.
[48] See BNSF COALDUST 0019796; 0020348.

[redacted]

Unfortunately, all of the aforementioned shortcomings of the monitoring system pale into insignificance when consideration is given to the ways the monitoring system could be used [redacted]

[redacted]

[49] See BNSF COALDUST 0003192-94; 0020540.
[50] See BNSF COALDUST 0020537-38.

[redacted]

8. Conclusions And Framework For Future Actions

[redacted]The BNSF Tariff is unreasonable, and is not justified by any of the considerations BNSF has advanced to support it. Coal dust did not cause the Joint Line derailments, and the Tariff [redacted]

[redacted]

E. The acquisition of BNSF by Berkshire Hathaway offers the hope that BNSF will alter its past practices, and put the [redacted] However, if such changes do not occur, action by the Board may be required to address properly the situation that has evolved.

[51] http://www.ntsb.gov/publictn/2006/rab0603.pdf .

F. To promote the public interest and encourage beneficial changes in practices, the Board should (a) find the BNSF Tariff is unreasonable and unenforceable; (b) initiate or indicate it is prepared to initiate a monitoring program to ensure the adequacy and impartiality of [redacted]; and (c) indicate its preparedness to exercise the authority it holds pursuant to Section 722(c) to reopen and modify as needed the terms of the Joint Line operating agreement and any other agreements or documents that govern the management of and performance of maintenance on the Joint Line.

Appendix B

Steps Available to BNSF to Reduce Fugitive Coal Dust

[redacted]

8. Continue research regarding effective, low-cost options, including pressure spraying, vibration and compaction.[53]

9. Identify actual dust costs and, if warranted, seek modification of URCS.

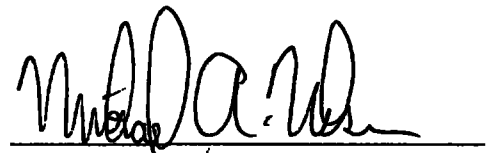
[redacted]

[52] [redacted]

[53] [redacted]

VERIFICATION

I, Michael A. Nelson, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement.



Michael A. Nelson

Executed on March 12, 2010

VERIFIED STATEMENT OF
DOUGLAS G. DE BERG

VERIFIED STATEMENT
OF
DOUGLAS G. De BERG

1. Qualifications

Douglas G. De Berg

My name is Douglas G. De Berg. I am an independent railroad transportation systems consultant specializing in track construction and track maintenance issues with over 40 years of experience in these disciplines. My office is in Kearney, Missouri. Prior to 1999 I was employed directly by railroad companies that were serving or designing to serve the coal transportation needs of western coal fields.

I have directed or participated in numerous consulting assignments on the evaluation and construction of new railways to serve the Coal Industry in about 10 locations within the United States. A major portion of my recent work has been in evaluating the maintenance practices of various heavy haul railroad lines including lines in the United Kingdom. My entire career has been devoted to the design, construction and maintenance of railway lines serving the major markets of heavy haul via rail.

A summary of my experience is attached as Appendix A.

2. Subjects Covered in This Statement

On behalf of Arkansas Electric Cooperative Corporation (AECC), I have been asked to comment on rail maintenance and other engineering issues pertaining to the Powder River Basin (PRB) Joint Line, which runs south of Gillette WY approximately 100 miles, and on the possible causes of two derailments that occurred on the Joint Line in May 2005, which the operator of the line, BNSF Railway (BNSF) has claimed were caused by fugitive coal dust.

3. Joint Line Maintenance

Before commenting on the general maintenance of the Joint Line, I first summarize three important factors with respect to any heavy-haul rail line: ballast, track modulus, and track inspection.

Ballast

Ballast in the track structure is required to distribute the loads from railcars and the rails and ties over which they move to the sub-ballast and sub-grade. It is composed of-hard angular crushed rocks of various sizes that interlock, allowing for minimal vertical and horizontal movement of the track structure, while spreading and cushioning the loadings being imposed on the sub-ballast and the sub-grade. This movement causes the interlocked angular ballast edges to begin a degradation process by grinding against each other. This grinding produces fines and dust that gradually foul the ballast and render it ineffective in handling loads from the loaded passing trains. The effective and useful life of the ballast depends on a number of factors:

- Amount of tonnage passing over the track, and the speeds the tonnage is moving.
- Size of axle loads and speed of the trains.
- Type of base rock used to manufacture the ballast: sandstone, limestone, slag, granite and basalt (listed in order of hardness, availability and cost).
- Hardness and abrasion qualities as measured and compared to the owning railroad's standard tests, which also include data for limits of the amount of various sizes of particles.
- Track use and type determines what track modulus (see below) the track designer will try to design the track structure for. The designer starts with the native materials he/she has to work with in preparing the sub-grade; if the native materials easily obtained are

inferior the designer will try to strengthen the available material by adding soil strengthening ingredients. What the track designer is looking for is the strongest sub-grade within reason. The sub-ballast section is designed using granular materials that both seal the sub-grade from moisture penetration and add additional strength to the sub-grade. This sub-ballast material may have to be relocated from another location within economic reason. The depth of the ballast section reflects the owning railroad's standard for various types of use of the track structure. The ballast section is also determined by how the actual track above the ballast section is to be constructed. Components such as wood tie track, concrete tie track, tie spacing and rail section (size) all play a part in the decision

- Drainage of the track structure is a major component of proper selection of ballast section.
- The presence of other fine particles such as airborne dust or sand deposited in the track structure or other foreign materials dropped from passing trains will contribute to the fouling of a good ballast section.
- Water is the enemy of stable track. Water, whether running longitudinally or across the right of way can soften and degrade a track structure fairly rapidly if it's allowed penetrate and be held by either a fouled ballast section, a poor sub-ballast material or a poorly designed sub-grade. A common adage among track engineers is that there are three things important to track – drainage, drainage, drainage.

Ballast conditions are usually improved by periodic maintenance in the form of cleaning accomplished by undercutting, shoulder ballast cleaning and adding of new clean ballast. In undercutting the track is raised slightly to take the load off of the ballast section and a machine

much like a giant horizontal chain saw is inserted under the ties. Its purpose is to cut out, at a depth below the tie, ballast and contaminates, elevate these materials and convey them to another portion of the machine that will screen out the materials that are undesirable. The undesirable materials can be disposed of in a number of means but they are not to be put back into the track ballast section. It may take several passes of an undercutter to reach the depth of the majority of the contaminates to eliminate or minimize their population. Good, acceptable ballast having gone through the screening process is returned to the track for reuse. The rate of return of good ballast varies according to the level of contaminates found or original ballast degradation. Upon passage of the undercutter any additional ballast that will be needed is normally distributed upon the track structure and ballast tamping machines place the (cleaned) old and new ballast under the track creating a new ballast section at a depth that the track was designed for. In my experience performing this type of maintenance operation, I had engineering elevation control points established and set so we knew when we achieved the desired amount of ballast under the track. I did not notice that type of control set anywhere on the Joint Line right of way. This doesn't mean that it wasn't done but I suspect at many locations adequate new ballast was not placed under the track structure to recreate the original designed ballast section.

Another effective maintenance procedure at times used between undercutting cycles is called shoulder ballast cleaning. In this operation the sides of the ballast section that forms the slope between the end of the tie and the sub-ballast area are excavated away from the tie ends, elevated screened/cleaned and replaced on the shoulder in one or several passes. Sometimes this operation may include a slight undercutting at the end of the tie to drag fouled materials out. This slight undercutting of the tie ends has to be done very carefully or not at all. Shoulder ballast cleaning was designed to accomplish two major goals. The first and foremost was to

clean the shoulder ballast and to assist drainage away from the track structure. A secondary result of cleaning the shoulder and the slight undercutting was expected to be assistance in allowing trapped moisture under the track structure to drain outside the track structure and also to leach fines and undesirable contaminates from under the track towards the shoulder of the track structure. This operation is best utilized and respectable results are obtained if there is sufficient moisture trapped under the track or sufficient moisture falling in the form of rain or snow. The operation lengthens the life of the shoulder ballast but at times has the detrimental effect of possibly making the track structure centerbound. When a track structure becomes centerbound it becomes less stable in holding alignment and surface and contributes to breakage of the crossties. Center bound track is hard to maintain and hard to eliminate. Usually a lifting of the track by raising with new ballast or undercutting is the only solution to correct this problem.

Track Modulus

Track modulus is measure of the stiffness of railroad track and is used by railway engineers ~~to~~ as one of several indicators of track strength and quality. As a general rule track with larger, heavier components or stiff sub-grade has a higher track modulus than track with smaller components or softer or more flexible sub-grades. Different track types with widely varying modulus are all satisfactory however a problem arises when track segments of differing modulus adjoin each other on the same track with an abrupt transition.

Track Inspection

Track inspection is the most critical maintenance function since it is the inspector's job to find and take remedial action situations that might pose a risk to safe train operations. Inspectors are governed by federal regulations and railroad policies and are required to have minimum levels of training and experience to perform the task. All heavily used track, new or old, built of

the best materials or the worst has track defects that occur on a regular basis. This track was approximately ten years old and had very high tonnages during that time. The inspectors should have seen the conditions in track prior to the accidents and should have taken remedial action. In fact, the results of poor drainage, fouled ballast, transition problems and other track issues are readily visible to inspectors in their routine track inspection required by the FRA and railroad rules and maintenance personnel and must be dealt with appropriately.

Overall Maintenance and Trends

From my long experience in track maintenance practices in heavy haul and high density rail lines I have several comments to make concerning the overall track conditions that precipitated the general collapse of the quality of track conditions on the Joint Line in 2005. The BN at the time of construction of original track 1 used standards that were generally accepted for the loadings projected or experienced. Loadings, length of trains and weight of trains and cars began to grow and the original standards needed to be improved upon. Several examples of improving the standards for the newer loadings and train frequencies would be a deeper ballast section with larger sized ballast particles such as 3" ballast materials versus 2" sized ballast materials with a heavier concentration of larger pieces and less fines. A deeper sub-ballast section to more evenly support the ballast, track structure and loaded trains. Ballast does become contaminated from a number of contributing factors such as ballast degradation, outside contaminates such as blowing dirt, blowing coal dust or other products of what is being hauled falling off of loaded and empty cars and locomotives. Locomotives use sand to assist adhesion in heavy pulling situations when driving wheels may tend to slip. AC drive technology on modern locomotives allows slight slippage of driving wheels as this actually produces more tractive effort but may introduce the use of more sand at times and in certain locations.

On rail lines that experience the traffic and tonnages experienced on the Joint Line appropriate regular maintenance practices have to be established and followed. Over the years a railroad will find and establish regular maintenance cycles mainly based on Million Gross Tons (MGT) handled. These cycles take into account some local conditions such as climate (weather), unusual conditions such as blowing in of contaminates and spillage of lading from passing trains and most certainly the type of grade, sub-grade, ballast rail and tie conditions. Various track maintenance practices are normally established to counter the effects of these conditions. In the case of the Joint Line rail, tie (wear in the tie rail seat or cracking) and ballast are the most important components of maintaining a structurally sound track system and maintaining a viably reliable transportation system for their customers and for maintaining operating costs within reasonable parameters by the heavy lading imposed by long and heavy coal trains.

In normal heavy-haul operations, rail is tested based on MGT, rate of failures experienced either found by testing or service failures between testing cycles. Track geometry, which is an end product of a well-designed grade, sub-grade and ballast section is inspected at regular intervals by either visual or manual inspection measurements accomplished by qualified track inspectors or by Geometry Cars and Track Strength Vehicles testing at track speeds established for that segment of track. Maintenance programs are established based on the results of inspections and testing. Rail is replaced when its failure or wear rates exceed the railroad's standards and this can be projected into the future based on MGT values. Ties are inspected and tested by the Track Strength testing vehicles as well as being inspected manually along with data supplied by deviations from the Track Geometry Measurement Vehicles whose testing data may indicate a problem with gauge or deviations from crosslevel or alignment. Tie replacement programs are established for future replacement cycles through this process. Ballast

maintenance programs are created in the same way using the same inspection and testing data that's been generated again based on MGT.

Because of the phenomenal growth of the traffic levels on the Joint Line and the enormous MGT accumulated in a short period of time, past maintenance cycles are no longer appropriate for the maintenance needs that have developed. I firmly believe that BNSF did not commit at the corporate level to the maintenance levels and maintenance cycles necessitated by the growing volume levels on the Joint Line.

4. Joint Line Derailments

a. Summary

On May 14 and 15, 2005, there were two separate derailments on the Joint Line. These accidents occurred within 12 hours and 12 miles of each other at MP 63.2 and MP 75.3 on what was then Main Track Number 1. Both involved loaded coal trains on ascending grades and straight track.

I understand that BNSF has attributed the cause of these derailments to fugitive coal dust degrading the ballast at these locations, but I conclude that the derailments resulted from a lack of adequate maintenance, perhaps elements of substandard construction, such as the turnout at MP 63.16 (since removed, but shown on photographs) constructed without proper drainage, and the failure of BNSF to protect train operations with temporary speed restrictions or removal of track from service until needed repairs could properly be made.

The reasons for these conclusions are discussed below.

b. Inspection

On Wednesday, March 3, 2010 I made an inspection of the two derailment sites on the BNSF– Union Pacific Railroad (UP) Joint Line south of Gillette, Wyoming. Because the

derailments occurred almost five years ago, an important part of my analysis was to review documents about the accidents and the locations obtained by AECC from UP and BNSF. However, the on-site inspections were very helpful for me in understanding the causes of these accidents, even though years have passed. Many times while inspecting track a qualified inspector will recognize what is called track memory: no matter what maintenance practice you perform, the track responds over time in recreating the problem you may have been trying to correct. At derailment site 1 the new track 1 adjacent to the old track 1 has evidence of memory of sub grade short comings by showing irregular surface conditions on new track 1 opposite the POD ("Point of Derailment") on old track 1. There are many times by observing the track memory conditions that a qualified trackman can ascertain the success of prior maintenance activities. In today's world many track maintenance people are inexperienced or unaware of the story track memory tells.

I first visited the derailment site at MP63.2, approximately one mile south of timetable station East NACCO. At this location on May 15, 2005 UP train CCAIM9-14 derailed. Track charts show that main track No. 1 was constructed with 136 pound rail section continuously welded, concrete ties, 12 inches of track ballast and 6 inches of sub-ballast on a compacted sub-grade as the standard. The track is straight, in a shallow cut and the grade is ascending at 0.6% in the direction of the train movement. The point of derailment occurred immediately south of a left hand turnout at the point in the track structure where the wood ties for the turnout end and the concrete ties for the standard track begin.

I also visited the second derailment site at MP 75.3. BNSF train CJRMMO002 derailed at that location on May 14th, 2005 at MP 75.3. This location is similar in several aspects to the UP derailment site. Track charts show that main track No. 1 was constructed with 136 pound

rail section continuously welded, concrete ties, 12 inches of track ballast and 6 inches of sub-ballast on a compacted sub-grade as the standard and just as at MP 63.3 the track is straight and the grade is ascending at 0.9% in the direction of the train movement. The point of derailment occurred very close off of the south end of Bridge 75.2. (I understand that Mr. Nelson will discuss information produced in discovery that indicates that BNSF and UP indentified a point of initial derailment south of this location.) This derailment was near a point in the track structure where the ties for the ballast deck bridge end and the concrete ties for the standard track begin. As in the first location, there is physical structure, a bridge, that served to collect and trap water at a location where track modulus changes.

c. Analysis

Water is the enemy of stable track. A common adage among track engineers is that there are three things important to track – drainage, drainage, drainage. These two locations have characteristics that collect water and accelerate deterioration of the structure due to excess water from surface runoff. The long grades south of both locations allow the water to run downhill and saturate the sub-grade. In the case of MP63.2 the water ponded at the turnout due to the absence of proper drainage. At MP75.3, water accumulated at the back wall of Bridge 75.2. The effect of the water was amplified by the change in track modulus caused by the movement of the train from concrete ties to wood ties at MP 63.2 and movement from the bridge to track supported by sub-grade at 75.2.

During the site inspection I noted that the ballast maintenance cycles seem to be lagging, with contaminates accumulated in the ballast sections and in places inadequate thickness of the ballast sections. The base rock used in the manufacture of the ballast is good, but many other factors that degrade ballast were present at both locations.

As mentioned above, the track modulus changed abruptly, very heavy tonnage in heavy wheel loads are using the track, drainage is not good and the sub-grade was weakened in freeze-thaw cycles. This problem does not occur over night and both BNSF and UP were aware of the situation. The standard process for repairing this situation is to undercut the track, removing the fines and replacing it with a combination of cleaned ballast and new ballast to replace the material lost through abrasion and contamination. While some ballast cleaning had been performed it was not enough to prevent failures at these two locations as well as other spots on the line. Since many factors affect the life of the ballast, different segments of track require undercutting and ballast cleaning at different cycles. Almost all track segments will have major sections that need ballast cleaning after an established criteria of acceptable accumulated MGT has been determined, but where factors such as poor drainage, foreign material entering the track from above or below, heavy wheel loads or differing track modulus. In certain segments that exhibit track degradation tendencies on a more frequent basis, it may be necessary to undercut and clean ballast after 100 to 200 mgt. BNSF was using shoulder ballast cleaning on the line and this practice was not followed by UP since their belief was that it contributed to center broken and cracked concrete ties. This occurs because the top of the concrete tie is placed in tension – concrete does not perform well in tension – during the undercutting process and during the time after the shoulder cleaning while the ballast is being consolidated by movement of trains. There is much evidence of center cracked ties in the areas of the derailments, many of whom were in the track at the time of the accidents.

This track was approximately ten years old and had very high tonnages over during that time. The inspectors should have seen the conditions in track prior to the accidents and should have taken remedial action. In fact, the results of poor drainage, fouled ballast, transition

problems and other track issues are readily visible to inspectors in their routine track inspection required by the FRA and railroad rules and maintenance personnel and must be dealt with appropriately.

While unstable track resulting from a number of factors was a contributor to the accident, the main cause was a lack of maintenance and the failure of BNSF maintenance and inspection personnel to properly protect train operations with temporary speed restrictions or removal of track from service until proper repairs can be made. BNSF operates and maintains the Joint Line and has direct responsibility for the safety of the track structure. It is mandated by the Federal Railroad Administration that proper track inspections be performed and remedial actions be taken to maintain the track in a safe operating condition. Unstable track in wet conditions or when frost leaves the track structure is a common problem in the northern area of the United States, which includes this area of Wyoming. The conditions and factors mentioned above exacerbate problems of unstable track. BNSF had indications that the problems were serious and failed to take the proper remedial actions as required by FRA regulations and standard industry practice. This failure to protect the track was the root cause of the accidents.

VERIFICATION

I, Douglas G. De Berg, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this verified statement.

Douglas G. De Berg

Executed on Mar. 08, 2010

APPENDIX A
to DeBerg's Verified Statement

APPENDIX A

Douglas G. De Berg

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tracktalk1@hughes.net

Professional Summary

A Railroad Construction, Maintenance, Design Engineer with management experience in operations in addition to the engineering disciplines. Motivated by challenge, analytical by nature and just plain enthused by the vibrant railroad industry in general has been my key to success in motivating others to rise to their best in successful completion of projects. In as much as I have risen through the ranks from a laborer up through the Chief Engineer's position, I have learned to communicate with other team members, clients and associates in creating the most effective results in terms of timeliness and cost effectiveness. Almost all of the major projects I have been associated with have been large construction and maintenance projects requiring close coordination with not only team members, but with operations and the logistics of procurement, supply and distribution.

I have been able to bring projects forward while keeping costs under tight control, to stay in close association with key personnel in the railroad industry and to provide what the client expects. In other words I speak and understand their language and can communicate that to the consulting firm.

Safety has played a major role in my career from designing the projects to managing those projects through to completion. I have not had a serious lost time injury associated with my projects.

Experience

Self-Employed **2000-present**

I established my own company in 2000 and have worked at that since then. I work for the major Class 1's, the Regional and Short Lines, industrial clients and for government agencies in inspecting, planning of improvements, designing new and realigned trackage and in managing contract preparation and supervision of contractors. All of the projects listed below were business opportunities pursued by me, proposals written, key personnel assembled and interviews attended by myself and team members under my direction

Achievements: An example of projects secured and completed.:

- Ford Motor realignment of Dearborn, MI. 50 track yard and perimeter trackage as part of Heritage 2000 project.
- Louis Dreyfus Grain Marketing realignment of Houston, Texas elevator trackage in Port of Houston.
- California and Arizona Railroad Parker, Arizona assessment of rail conditions and developed rail replacements program.
- Network Rail in the UK, assessment of their Infrastructure Improvement Program and recommendations for further improvements and better work methods.
- Union Pacific Railroad, Bridge situation surveys in western Iowa to determine bridge replacements.
- Conceptual design work on NRG's Limestone – Texas coal generating plant installing second unloading loop, increasing track/train capacity on BNSF connection and establishing new connection to the Union Pacific Railroad.
- Conceptual and initial design of establishing unit train rail service to Mission Energy's mine mouth power plant at Homer City, PA. Redesign of the existing plant and

connecting trackage to lower ruling grade, establish loop unloading for coal, create unloading facilities for limestone and create loading facilities for out bound gypsum.
- Conceptual design, cost estimating and operations planning on new 90 mile long coal line in Illinois
- Conceptual design, estimating of costs and analysis of operations on 16 mile new coal line in western Colorado
- Project Manager on Nashville Commuter rail design and planning
- Operations planning for several major Industrial clients in complex plant operations
- Assisted major client in locating, inspecting , supervising repairs and purchasing locomotives for several plant locations within the USA.

MK Centennial - Located in Kansas City, MO 1998 to 2000

As the National Rail Director I was in charge of establishing a new office to coordinate all railroad maintenance, construction and engineering work in one location. This work was on a Nationwide basis. Again all of the projects listed below were business opportunities pursued by me, proposals written, key personnel assembled and interviews attended by myself and team members under my direction. We were moderately successful in getting a toehold but the office was closed at the end of the second year due to a consolidation of the freight rail side with the transit side.

Achievements:

- Secured contract and began work on the Chicago Freight Traffic Improvement project.
- Design of the new KCS freight yard in Wylie, Texas
- Bridge surveys, hydrology and hydraulic studies on waterways and recommendations for bridge renewals on the BNSF.
- Initiate permitting process on engineering projects on BNSF and follow to conclusion of permits being issued
- Bridge surveys, hydrology and hydraulic studies on waterways and recommendations on bridge renewals for the Union Pacific Railroad

Dakota, Minnesota and Eastern Railroad 1995 - 1998

Located in Brookings, South Dakota 1995 to 1998. I was hired to be the Chief Engineer of this 1135 mile long railroad. Responsibilities included track, bridges, signal, communications and equipment maintenance. I was in charge of 150 people and one shop facility. The position was crucial to planning and implementing the major reconstruction effort of rebuilding the entire railroad.

Achievements:

- Complete rehabilitation of 105-mile long portion of one Sub-Division increasing train speeds from 5 and 10 mph to 49 mph. I estimated and planned the project which had been estimated and budgeted for $27M and to include 3 construction seasons, project as I estimated and planned was completed in one construction season for $24M.
- Design and Replacement of 3 key railroad bridges, one destroyed by a derailment the other two inadequate to handle today's heavier cars and trains. All three structures constructed under traffic, within budget and capable of 315K loading.
- Elimination of 75% of main line slow orders
- Prioritized all maintenance work by assessment of conditions and improvements best benefiting operating needs

- Implementing FRA inspections and remedial actions for the Signal Department
- Assisted in securing funding from State sources on both track and signal improvements
- Assisted in initial designing of 260 mile expansion of the railroad into the Wyoming Powder River Coal Basin
- Built a stronger, younger and more focused Maintenance of Way Team

Atchison, Topeka and Santa Fe Railway 1974 to 1995

Railway was headquarted in Chicago, Illinois. My assignments were on a system basis beginning as an Asst. Roadmaster in charge of major track rehabilitation programs. These programs consisted of:

Achievements:

- Major Track rehabilitation programs such as; under track plowing, undercutting, rail renewals, surfacing and bridge rehabilitations
- Entire sub-division rehabilitations with one specific project almost 157 miles long. I coordinated all of the major wok with the bridge construction and signal improvement efforts and with the operating departments to maximize effort and reduce costs reduce train delays and shorten elapsed time of work.
- Promoted to Asst. Chief Engineer of the 305 mile long subsidiary Toledo, Peoria and Western RY. with the express task of rebuilding the entire railroad to FRA Class 4 standards for 49 mph operations. Upon transfer back two and one half years later the work was 80% completed
- Asst. Division Engineer/Acting Division Engineer on Main line Division with 60 freight trains/day and two Amtrak Trains/day with major rehabilitation projects ongoing
- Construction Engineer on a 42-mile long new coal line in the Mountains of Northwest New Mexico. Work included coordination all Santa Fe disciplines with contractors and supervision along with scheduling of all work.
- Assumed new position in Chief Engineer's office to assess and plan the maintenance of the rail assets of the entire railway.
- Director of Rail Planning and Testing for the entire 15,000-mile system.

Chicago and North Western Railway Illinois *1957 - 1973*

Major upper Midwest Railroad headquartered in Chicago, IL. This was my first work in the industry and I have worked continuously in the Industry since then. I began work as a trackman while at the same time continuing my education and advanced through maintenance ranks to Asst. Division Engineer, and Engineering ranks from Rodman through Designer to Office Engineer.

Achievements:

- *Was a tie gang Foreman in charge of a 25 man tie gang working under traffic on a major passenger and freight line. Project completed ahead of time and under budget.*
- *Was a Rail gang foreman and Asst. Roadmaster installing CWR on various subdivisions of the company*
- *Was an Asst. Roadmaster in charge of an undertrack plow gang ultimately rehabilitating approximately 350 miles of track.*
- *Asst Design Engineer of a new intermodal facility on 54 acres of property. Facility had 16 tracks, two truck scales 50,000 square yards of reinforced concrete paving, 50,000*

linear feet of curb and gutter along with sanitary and storm water sewer water and communications.

- *Construction Manager for the above facility responsible all daily activities including planning, execution and inspection.*
- *Design Engineer and Project Manager of 4 major industry Greenfield track projects with major clients including General Motors, Anchor Hocking Glass, American Motors*
- *Project Manager on New Yard and office construction in Madison, Wisconsin.*

Illinois Terminal Railroad *located in Saint Louis, MO from September of 1973 until March of 1974. Owned in partnership by the Chicago and North Western along with 9 other railroads. I was assigned and involved in the major rehabilitation of their physical plant. I was the Asst. Chief Engineer in charge of all Track, Bridge, Signal and Communication in maintenance and construction activities.*

Achievements:

- Strengthening of bridges
- Major tie renewals
- Major surfacing
- Procurement of materials and equipment for the specialized projects
- Removal of most major slow orders improving train times and crew utilization.

Education:

Attended Iowa State University – Ames, Iowa majoring in Mechanical Engineering 1961-1962

Attended Illinois Institute of Technology in Mechanical Engineering discipline going to night school 1962 – 1964

Attended Milwaukee School of Engineering continuing in Mechanical and Civil Engineering going to night school 1964 – 1968

Penn State University – State College, PA completed Railway Engineering Short courses 1978

Advanced education resulted in completing all work but being about one semester short of BS degree in 1978

Special Honors/Affiliations

Member of Roadmaster and Maintenance of Way Association 1973 – 1997
Member of American Railway Bridge and Building Association 1976 – 1997
Director of this organization for 2 years 1988 - 1990

Member of American Railway Engineering Association 1972 – 1997
Member of American Railway Engineering and Maintenance of Way Association
Chairman of Committee 4 – Rail 1996 - 2000
Member of Committee 02 Track Measuring systems
Member of Committee 18 Regional and Short Line Railroads

Major Focal Points of my Career

In the years of my work in the railroad industry I was personally involved in designing and planning projects, analyzing and developing solutions to emerging problems developing budgets, strategic planning and implementation, estimating, materials procurement, developing personnel and coordinating safety procedures. I relish challenges and have enjoyed working not only for the railways but also with the railways in a contract situation. I take pleasure in working with and helping train younger and less experienced engineers in creating products the railways want and need. In short, I love mentoring as well as supervising. I am comfortable meeting new and interesting people, and confident in selling the services we offer in a very sincere knowledgeable manner.

I take it for granted but even in my work while in supervisory roles in the railroad industry the bottom line to all the planning, scheduling, estimating and procurement was in selling a particular project to senior management and stock holders. No project gets approval without aggressively selling the merits of the project, the approach and the return on investment. In effect I've been marketing for a good number of years beyond my own companies work and MK Centennials work to secure work and ultimately profit and recognition.

EXHIBITS

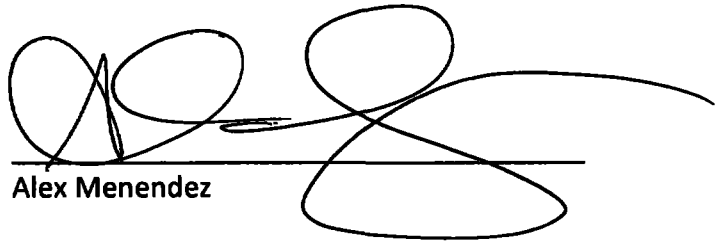
ALL EXHIBITS ARE
HIGHLY CONFIDENTIAL

CERTIFICATE OF SERVICE

I hereby certify that on this 16th day of March 2010, I caused a copy of the foregoing to be served by first class mail, postage prepaid, to:

Thomas W. Wilcox
Gkg Law, P.C.
Canal Square, 1054 31St Street, N. W, Suite 200
Washington, DC 20007-4492
Counsel for Tuco Inc and National Coal Transportation Association

I further certify that I caused a copy of the foregoing to be served electronically on all other parties of record on the service list in this action.



Alex Menendez