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**BEFORE THE
SURFACE TRANSPORTATION BOARD**

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E.I. DUPONT DE NEMOURS & COMPANY

Complainant,

v.

NORFOLK SOUTHERN RAILWAY COMPANY

Defendant.

Docket No. NOR 42125

**REPLY EVIDENCE OF
NORFOLK SOUTHERN RAILWAY COMPANY**

EXECUTIVE SUMMARY

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Executive Summary

Norfolk Southern's ("NS's") Reply Evidence and Argument conclusively demonstrates that the rates challenged by DuPont in this proceeding are reasonable by a significant margin when judged by the Stand-Alone Cost ("SAC") test as properly implemented and when the myriad errors, false assumptions, and violations of SAC rules in DuPont's Opening Evidence are exposed and corrected. In addition, the market dominance portion of NS's Reply Evidence also demonstrates that the challenged rates in 99 of the 138 separate origin-destination pairs, or traffic lanes, covered by DuPont's Amended Complaint are effectively constrained by intermodal transportation alternatives to NS's rail service, and the Complaint should therefore be dismissed as to those traffic lanes on that jurisdictional basis alone.

However, the Board is confronted here with an evidentiary submission by DuPont that fails to present a *prima facie* case. *IPA*, STB Docket No. 42127 at 3 ("It is the duty of the Complainant to make its best case on opening.") DuPont's evidence is so fundamentally deficient, a product of egregious gamesmanship, and so clearly inconsistent with the Board's guidelines and past decisions on SAC cases, that outright dismissal of the Amended Complaint for failure to present a *prima facie* case is warranted. NS responded to more than 800 different discovery requests (including subparts), giving DuPont access to massive amounts of discovery. DuPont then received multiple extensions so that it could avoid the very "shortcuts" in its evidentiary submissions that are unparalleled. However, at the end of the day, DuPont likely realized what NS has known all along—NS's rates are in fact inherently reasonable. DuPont's failure to adhere to established precedent, gamesmanship with evidence, and distortions underlie its astonishing claim that SAC revenues exceed costs by more than \$20 billion (DuPont Opening III-H-12, Table III-H-1). Indeed, DuPont's Opening Evidence and Argument strains credulity when it claims that absent the jurisdictional threshold it should be entitled to rates below the

variable costs of the movements, including movements of Toxic-by-Inhalation (“TIH”) commodities. (*Id.* at III-H-14). The length and detail of NS’s Reply Evidence and Argument are attributable to the necessity both of explaining DuPont’s errors and failures and of correcting and rectifying them—category-by-category and issue-by-issue. Any list of the failures in DuPont’s evidence suitable for an “Executive Summary” cannot possibly be comprehensive enough to detail the myriad deficiencies discussed in the ensuing four volumes of NS’s Reply Evidence and Argument, all supported by extensive electronic workpapers which are being filed simultaneously.

I. Overview of DuPont’s Rate Challenge

In this case, DuPont challenges NS rates in 138 lanes of movements that cover 26 discrete commodities, including TIH movements such as chlorine. These rates were established at the expiration of a long-term contract entered into by NS and DuPont in 1997.

However, NS is not market dominant over 99 of those challenged lanes. In two of the lanes, there is direct rail competition from CSX. In the remaining 97 lanes, there is feasible and substantial competition from trucks. The primary evidence of this truck competition is DuPont’s own contracts with trucking companies to move the very same commodities, often in the very same lane. This compelling evidence also includes the fact that DuPont is part owner of one such trucking company that serves some of the very DuPont origins that are involved in this case. Not only is this truck competition feasible, it is real. The prices of these truck alternatives are in most instances within ten percent of the NS tariff price. During the tenure of the long-term legacy contract that expired before NS established the challenged tariff rates, the truck market changed, and in particular, the marginal costs of truck transportation substantially increased because of fuel and other costs. They were competitive alternatives in the market at the time DuPont and NS entered into that legacy contract; and they remain competitive alternatives today.

Turning to the stand-alone railroad ("SARR"), the traffic group DuPont selected required the largest and most complex SARR in history, which is the DuPont Railroad ("DRR"). According to DuPont's Opening Evidence, the hypothetical DRR would operate in twenty states with over 7,200 constructed route miles and another 820 miles in trackage rights and joint facilities. The DRR replicates much of the current NS system, extending from Chicago, IL, Detroit, MI, and Buffalo, NY, in the north to New Orleans, LA, and Mobile, AL, in the south, and from Oak Island, NJ, and Baltimore, MD, in the east to Memphis, TN, and Kansas City, MO, in the west. **It would handle nearly 6.2 million annual carloads of traffic and earn \$6.6 billion in revenue in its first full calendar year of operations, which would immediately vault it into NS's place as the fourth largest Class I railroad in the United States.** Whether one measures the DRR's size by mileage or revenues, it would be over twice the size of any previous SARR considered by the Board. Indeed, on a revenue basis the DRR is ten times the size of the SARRs in seven out of the last eight decided SAC cases. On a route-mile basis the DRR is thus nearly four times larger than the largest SARRs the Board has considered to date. *See AEPCO 2011*, STB Docket No. 42113 at 31 (2,235 route miles); *FMC*, 4 S.T.B. at 786 (3,037.89 route miles). Additionally, the DRR interchanges traffic with all seven Class I railroads, with various regional and short-line railroads with which NS interchanges traffic today, and with the residual NS at multiple locations.

As shown in the table below, unlike prior cases, which were predominantly coal rate cases with nearly all additional traffic being other unit train traffic, **this case at its core must address first and foremost carload traffic.** Indeed, the DRR would handle the most carload traffic and the most diverse traffic group in the history of stand-alone rate cases.

Comparison of DRR Traffic Mix to Traffic Mix In Past Cases¹

	<i>DuPont</i>	<i>AEPCO</i>	<i>AEP Texas</i>	<i>WFA</i>	<i>Otter Tail</i>	<i>Xcel</i>	<i>CP&L</i>	<i>Duke/ CSXT</i>	<i>Duke/ NS</i>	<i>TMPA</i>
Coal	37.9%	53.3%	95.6%	100%	90.3%	100%	95%	98%	95%	100%
Non-Coal	62.1%	46.7%	4.4%	0%	9.7%	0%	5%	2%	5%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

A carload railroad is far different from prior SARRs. In particular, a carload railroad must provide an operating plan that accounts for the movement of each carload from its specific origin to its specific destination, including moving to and from yards, being classified into blocks and trains, and being picked up at and delivered to shipper facilities. At the same time, the DRR must move unit trains and time sensitive intermodal traffic all on the same system that it moves the multitude of commodities in a carload network.

However, for the reasons discussed in this Executive Summary and in NS's Reply Evidence, the DRR proposed by DuPont is a far cry from a railroad that could actually work. The DRR would handle all or some of the linehaul for 92% of NS's current traffic base and, according to DuPont, would claim 74% of NS's overall revenues. In its peak year, whether using NS's or DRR's traffic forecasts, **the DRR handles substantially more traffic than the highest volume levels ever handled by the real NS.**

NS's peak year in terms of volume was 2006, when it handled 7.9 million units. (See <http://www.nscorp.com/nscorphtml/pdf/Investors/AR2006.pdf>, at K-21). According to DuPont, the DRR would handle 9.8 million units in its peak year. DuPont Opening III-A-13, Table III-A-5. Defying credulity, **DuPont claims that the DRR runs a carload network that handles all that traffic with less than 79% of NS's track miles, less than 15% of NS's yard track capacity, no intermodal or automotive facilities, and no industry tracks to reach customers.**

¹ See NS Reply III-D-57

As detailed below, DuPont's case fails: (1) to follow Board precedent and rules; (2) to provide traffic and revenue evidence based on reality and reasonable assumptions; (3) to include a feasible operating plan; (4) to provide local and yard operating plans; (5) to provide terminals and infrastructure needed to meet the needs of the customers in the DRR's traffic group; (6) to include bridges and culverts that are designed to address the relevant terrain and topography or that follow accepted engineering standards; (7) to provide construction evidence that is realistic from an engineering standpoint; (8) to acknowledge that the DRR handles TIH and hazardous materials and to address the implications of that fact; (9) to account for NS's partial ownership in other railroads over which DuPont proposes that the DRR will operate; and (10) to staff the DRR to serve its sizeable and diverse customer base. And these are only some of the more major failings. For every one of these examples, there are many others that are detailed throughout NS's submission.

All these omissions and unworkable assumptions allow DuPont to assume that the DRR can operate at the miraculously low operating ratio of 42.4%. To compare, in 2009 the seven current Class I railroads all had operating ratios between 76.3% and 81.6%. *See* Association of American Railroads, *Railroad Facts* at 67 (2010 ed.). In fact, the DRR would have an operating ratio two-thirds that of the most efficient Class I railroad in North America in 2009—Canadian National, which had an operating ratio of 67.3% while avoiding costs that the DRR would incur (such as health care for employees involved in its Canadian operations).

In stark contrast to DuPont, NS provides evidence that is consistent with Board precedent, provides a feasible operating plan to meet the needs of DRR's diverse customer base, sizes DRR's infrastructure properly, and staffs DRR in line with the staffing levels that a least-cost, most efficient railroad would attempt to achieve. Such a railroad would have construction

and operating expenses far in excess of its revenues. Accordingly, NS's rates are reasonable as determined by the SAC test.

II. For the Largest SARR Ever Proposed, Handling Far and Away the Largest Amount of Carload Traffic Ever Posited in a SAC Case, DuPont Has Failed To Present a Feasible and Workable Operating Plan.

- DuPont did not provide a feasible operating plan to serve the traffic it selected for inclusion in the DRR's traffic group. *See e.g., CP&L, 7 S.T.B. at 259* (complainant carries the burden to provide a feasible operating plan). Any one of the flaws listed below is a fundamental failure of proof standing alone, much less when they are combined.
- The traffic group selected by DuPont to be handled by the DRR contains more than three million cars of general freight traffic, a volume of such traffic of truly unprecedented magnitude for a SAC case. However, the methodology that DuPont used to develop its train service plan failed to capture tens of thousands of NS trains in which DuPont's selected traffic moved in the Base Year. *See FMC, 4 S.T.B. at 736-37* (rejecting complainant's operating plan in part for understating the number of trains). **As a result, the operating plan DuPont submitted for the DRR is incapable of providing complete on-SARR train service for more than 700,000 (or nearly 20%) of those 3 million cars—including 76% of the issue traffic (i.e., DuPont's own traffic)! *See NS Reply III-C-10.***
- Having selected a traffic group containing more than 3 million carloads of general freight traffic, DuPont offered absolutely no classification or blocking plans for handling that massive volume of carload traffic through the DRR network. *See NS Reply III-C-62.* Instead, with no real world support whatsoever, DuPont's

operating plan and RTC simulation are predicated on the wholly unrealistic assumption that merchandise traffic would move in “trainload service” similar to that designed for unit coal, grain, and intermodal shipments. *See id.* at III-C-54. DuPont’s failure to account for all of the necessary elements of “carload service” renders its operating plan for general freight traffic infeasible, and its operating expense estimates derived therefrom invalid.

- DuPont’s operating plan is based upon nothing more than a series of mathematical calculations, devoid of the application of any actual expert railroad operating judgment to the results. The DRR yard configurations, yard locomotive fleet, and yard crew staffing estimates are all utterly divorced from the requirements of the traffic group that DuPont selected. *See* NS Reply III-C-37. Nowhere in its Opening Evidence or work papers did DuPont identify—much less account for—the number of general freight cars that the DRR would have to classify and switch at intermediate yards every day. *See id.* at III-C-57. The result is an operating plan that undersizes virtually every “major” and “medium” yard on the DRR network, and conversely specifies numerous unnecessary smaller yards. *See FMC*, 4 S.T.B. at n.88 and 89 (discussing same problems with mathematical attempts to develop an operating plan and rejecting plan).
- The peak year traffic group selected by DuPont includes more than 600,000 carloads of general freight traffic that is local to, or interline forwarded or received by, the DRR. (DuPont Opening III-C-3, Table III-C-1). However, the track configuration posited for the DRR (summarized in DuPont’s Opening Ex. III-B-2) does not include any spur or industry tracks that are required to

perform pick-ups and set-offs at the more than 6,000 customer facilities that the DRR would be required to serve. *See* NS Reply III-C-65. **In short, it is physically impossible for the DRR as constructed by DuPont to pick-up or set-off cars at customer facilities—meaning that the DRR by definition cannot provide service that is equal to or better than that provided by NS in the real world.** *See CP&L*, 7 S.T.B. at 256 (rejecting complainant’s operating plan in part for failure to account for all elements of service to origins).

- DRR’s traffic is comprised very heavily of cross-over movements with approximately 80% of the DRR’s revenues attributable to such traffic. But even more egregiously, DuPont posited “internal cross-over” movements between the DRR and the residual NS at intermediate points within the DRR network. This unprecedented hypothesis of “leap frog” trains that repeatedly enter and exit lines operated by DRR and NS as they move across the SARR is not an attempt to simplify the SAC test. Rather it is a gambit to avoid substantial construction costs, such as the tunnels along the Heartland Corridor (such as in the case of Train 234 depicted below), or to avoid re-routing traffic in ways that would be impermissible pursuant to Board precedent. This latest distortion of SAC principles using cross-over traffic must be prohibited and such movements disallowed. *See* NS Reply III-C-95.

**Leap Frog Train #234 Example: Chicago, IL-DRR-Chillicothe, OH-NS-PD Junction, WV-
DRR-Petersburg, VA-NS-Norfolk, VA**



- DuPont's RTC simulation, upon which it explicitly relies to "confirm that the DRR's configuration, facilities and operating plan are feasible" (DuPont Opening III-C-17), is based upon DuPont's fatally-flawed operating plan. In addition, the RTC Model constructed by DuPont contains numerous modeling errors, including incorrect grade information (which when corrected causes many trains to stall and not be able to complete their runs); failure to account for delays caused by random failures and maintenance windows; failure to account for the time required for foreign railroad trains to cross DRR's lines; failure to account for program maintenance; and failure to model train movements completely and accurately (with the result of vastly understating the time and resources that would be required to perform pick-ups and set-offs at customer facilities). See NS Reply III-C-120-157. This litany of glaring errors, and DuPont's reliance on an infeasible operating plan in its RTC simulation, render the outputs of its RTC

simulation—as well as the operating expenses calculated based on them—meaningless. *Cf. AEPCO 2011*, STB Docket No. 42113, at 28-30.

- In comparison to these epic failings in the DRR’s “operating” plan, NS provides an operating plan that accounts for every car from origin to destination. Unlike DuPont, NS has accounted for all of DRR’s traffic group, including the issue traffic DuPont omitted. It properly modeled the cars as they left from their specific origins, were built into blocks and trains, moved through the DRR system being reclassified into blocks and trains at various yards, and moved to destination or interchange. The trains that resulted from this modeling were then run successfully through NS’s RTC model that incorporated proper grades and accounted conservatively for random failures, maintenance windows, and interference from foreign railroads crossings.

III. DuPont Fails to Include Significant Assets Required to Serve the DRR’s Customers, Fails to Recognize the Impacts of Regulations for Handling HazMat Traffic (Including TIH Commodities), and Makes Self-Serving and Unsupportable Assumptions About Its Interline Relationships.

- The traffic group selected by DuPont for the DRR contains 5.2 million units of intermodal traffic, and DuPont therefore acknowledges that “[t]he DRR serves....intermodal ramps.” DuPont Opening III-C-3. **However, DuPont did not construct a single intermodal facility anywhere on the DRR’s 7,300 route mile proprietary rail system.** *See* NS Reply III-C-201. It therefore could not handle the volumes of intermodal shipments for which it has claimed revenues. *See CP&L*, 7 S.T.B. at 256 (rejecting complainants operating plan in part for failure to account for all facilities such as staging and gathering yards needed to serve origins).

- The DRR does not have any car repair personnel or facilities. DuPont assumes that, because the DRR would acquire cars under full-service leases, its car fleet would be maintained by the lessor, making its own proprietary facilities and personnel unnecessary. (DuPont Opening III-D-8). However, this assumption makes it physically impossible for the DRR to perform running repairs on foreign line cars, as required both by the AAR Car Interchange Rules and the terms of NS' intercarrier agreements (which the DRR purports to adopt). *See* NS Reply III-C-91. Accordingly, the DRR could not comply with applicable rules and contractual obligations.
- The traffic group selected by DuPont includes more than 16,000 Base Year carloads of TIH commodities, as well as other hazardous commodities, including some of DuPont's own issue traffic. **Yet nowhere in its Opening Evidence or workpapers did DuPont mention—much less account for—compliance with the myriad safety laws, regulations, and best practices that apply to the transportation of hazardous commodities.** *See* NS Reply III-C-95. Nor did DuPont acknowledge the inherent risks associated with TIH commodities.
- DuPont asserts that the DRR's interline relationships with connecting carriers "are based on NS's joint use and interchange agreements with such carriers; the DRR steps into NS's shoes under these agreements." (DuPont Opening III-C-45). But DuPont's operating plan is replete with assumptions that violate the terms of NS's intercarrier agreements (which were produced to DuPont in discovery). *See CP&L*, 4 S.T.B. at 255 (noting that operating plan cannot change service without evidence the "connecting carriers... would not object") (citing *West Texas*,

1 S.T.B. at 667); *Xcel*, 7 S.T.B. at 610. For example, DuPont assumes that the DRR would enjoy the benefits of those agreements (including such items as pre-blocking of cars prior to their interchange to the DRR, and fueling and inspection of locomotives prior to their receipt by the DRR from foreign roads) without acknowledging and making provisions for any obligations to provide “reciprocal” services to connecting carriers. *See* NS Reply III-C-71. DuPont also posits agreements—including arrangements that would require all trains to be interchanged as run-through trains with locomotives in a 1/1 distributed power configuration—that not only do not exist today, but are fundamentally inconsistent with prevailing operating practices in the territory that the DRR proposes to serve. *See id.* at III-C-79. These failures further undermine any suggestion that DuPont has proffered a feasible operating plan for the DRR, and they also result in significant additional understatements of the DRR’s operating costs.

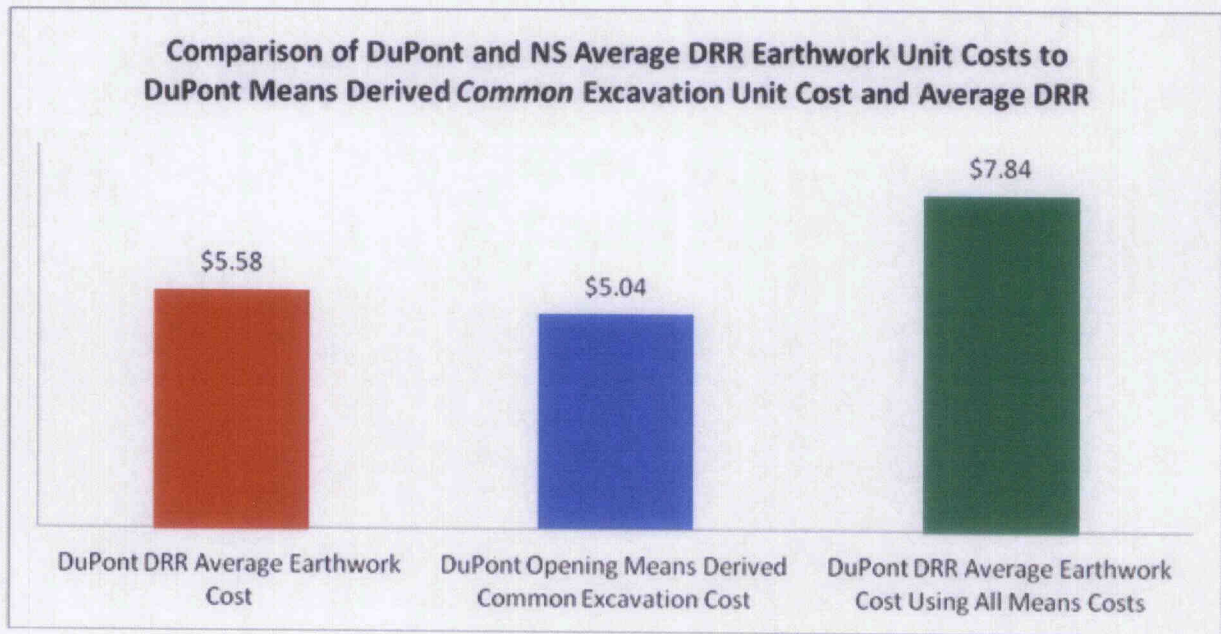
IV. DuPont Understated the Road Property Investment Costs of the DRR by Over \$16 Billion.

Road property investment costs are a significant issue in SARR construction in the Eastern United States. Prior cases have demonstrated that a number of categories of construction costs are higher on average in the East because more railroad lines and facilities are built in areas of difficult topography and of high value urban land. *Compare Duke/NS* and *Otter Tail*. Recognizing these differences, the Board in *Simplified Standards* properly refused to simplify the RPI analysis for tunnels, instead requiring parties to submit evidence on replacement costs. *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646, (Sub-No. 1), at 42 (served Sept. 5, 2007). And, the Board allowed for some use of case-specific grading and earthwork

quantities. *Id* at 39-40. In this case, the DRR goes through such diverse terrain as mountains, urban areas, and swamps. DuPont, however, uses gimmickry and rejection of long-accepted standards for engineering evidence in an attempt to overcome the inherent costliness of railroad construction in the East.

- **DuPont underestimated the costs of land acquisition by more than \$1 billion, a feat that it managed to accomplish in large part by embracing a June 1, 2009, date of valuation for the land necessary for the DRR's ROW and other facilities, which is the very same day on which the DRR is to start operations.** But the correct valuation date is mid-2007, as specified in DuPont's own construction schedule for the DRR. *See* NS Reply III-F-4 to III-F-9. No doubt DuPont uses this misleading valuation date because it would like to benefit from the depressed real estate prices. *Cf. McCarty Farms*, 2 S.T.B. & n.132 (adjusting land valuation data back to start of construction period); *Arizona Pub. Serv. Co. v. ATSF*, 2 S.T.B. 367, 387 & n.55 (valuing land to provide for a one-year construction period prior to start of service). DuPont also ignored Board precedent and valued easements at historic costs rather than at current market values. *See Xcel*, 7 S.T.B. at 669. NS' Reply Evidence uses July, 2007, as the correct valuation date, which reflects land prices at the time that the DRR would have to acquire it and not the severely depressed prices that resulted from the significant economic downturn of 2008-2010.
- DuPont generated unrepresentative and unrealistically low roadbed preparation costs by rejecting the well-respected RS Means average unit costs accepted by the Board in numerous prior SAC cases in favor of costs derived from a small,

isolated line relocation project for a short-line railroad in southern Tennessee. *See, e.g., AEP Texas, Xcel.* **That 7,000 foot project is not on any route traversed by the DRR, and it is not remotely representative of the type and scale of roadbed preparation necessary to construct a railroad over the diverse terrain, topography, and conditions found on the far-flung routes of the DRR.** *See* NS Reply III-F-36 to III-F-51. DuPont knew how unrepresentative it was. DuPont did the calculation for common excavation cost (only one of the excavation costs required in a SAC case) consistent with prior Board precedent and included those calculations in its workpapers. DuPont Opening WP “DRR Open Grading errata.xls,” Tab “Unit Costs.” Seeing the results, DuPont jettisoned that standard, well-established approach in an attempt to depress DRR’s excavation costs. As the chart below shows, the average DRR earthwork cost (which includes common excavation, loose rock, and solid rock excavation) per cubic yard from DuPont’s opening is barely higher than the Means derived unit cost for common excavation alone (which is the least expensive of the excavation costs included in the average) developed by DuPont in its electronic grading work but not used by DuPont to estimate DRR construction costs.



- The effect of DuPont's decision to jettison representative and reliable unit cost data and calculations supported by decades of Board precedent in favor of the unprecedented use of costs from a small unrepresentative project is that DuPont's evidence proffers an average earthwork cost of \$5.58 per cubic yard, compared to a properly calculated average of \$7.84 per cubic yard.
- **DuPont failed entirely to include road property investment costs for the many rail lines and facilities in which NS has a partial ownership interest.** See NS Reply III-F-298 to III-F-316. Although the DRR may step into NS's shoes, it may not do so at better terms. *AEPCO 2005*, STB Docket No. 42058, at 11 (rejecting trackage rights where the "tenant carrier's fee does not reflect the full cost of ownership"). NS's Reply Evidence corrects this error by calculating the investment costs of those lines and facilities, allocating to the DRR a share of the costs proportionate to NS's ownership share. See NS Reply III-F-316.
- DuPont significantly understated tunnel costs by adopting a crude "one size fits all" cost-per-linear foot for every single one of its diverse tunnels. See NS Reply

III-F-157 to III-F-158. Rather than develop a cost per linear foot tailored to the varying characteristics of the DRR tunnels, DuPont used a tunnel construction cost per foot derived from a 1980 Interstate Commerce Commission decision in *Coal Trading*. See DuPont Opening III-F-39, n.89. But DuPont has ignored another Board precedent that recognizes that *Coal Trading* dealt with costs for timber-lined tunnels that are inapplicable to the steel and concrete-lined tunnels that would be required for most DRR tunnels, and that it is not a reasonable proxy for tunnels costs. See *AEPCO 2011*, STB Docket No. 42113, at 110-11. NS's Reply Evidence contains five separate tunnel classifications and related construction specifications with costs for each to account for the varied fixed and variable components of costs of different tunnels. See NS Reply III-F-158 to III-F-166.

- DuPont's approach to bridge construction costs reflects a serious lack of understanding of bridge engineering, and its assumptions and approaches to the subject are grossly inadequate. The witnesses sponsoring DuPont's bridge construction cost estimates ignored critical data produced by NS in discovery (including such fundamental facts as bridge heights), and they substituted their own baseless and erroneous assumptions regarding the parameters and characteristics of the bridges proposed for the DRR and the waterways and other topographical features they cross. See NS Reply III-F-167 to III-F-218. Most egregiously, DuPont simply assumes bridge heights for DRR bridges regardless of terrain or waterway. A simple example, which is one of many, proves the folly

in DuPont's approach. In Kentucky, NS has a bridge called High Bridge that stands 308 feet over the Kentucky River as shown in the picture below.



DuPont replicates this bridge at a height of only 16 feet. Comparing the height of the intermodal containers on the train passing over the bridge, which stand 8 to 9 feet tall (excluding the height of the flatcar on which they sit), it is obvious that a 16 foot high bridge will not work here or in many other locations on the DRR.

Xcel, 7 S.T.B. at 689 (rejecting bridge plans that are not “feasible and capable of supporting the needs of the [SARR]”).

- Without support, DuPont assumed that the DRR would replace bridges that cross roads and highways with culverts. *See* NS Reply III-F-179. The absurdity of that assumption is demonstrated by an example of a bridge on the Harrisburg Subdivision in Lebanon, PA that is twelve feet in length, 17 feet high, and spans 25th Street, which is an automobile roadway (*see* photo below). DuPont would

replace this structure on the DRR with a pair of 108-inch (9 feet) diameter pipes, regardless of the impairment to traffic.



- DuPont's reliance on four standardized bridge types fails to account for the numerous unique bridges that the DRR would have to replicate—including moveable bridges, exceptionally high bridges, and bridges over navigable waters—and the challenges of constructing such bridges. *See* NS Reply III-F-199 to III-F-218. The Board has repeatedly held that a complainant cannot meet its burden of proof on bridges when it provides for bridges that are not “feasible and capable of supporting the needs of the [SARR].” *Xcel*, 7 S.T.B. at 689.
- DuPont's estimates for signal costs are unrealistically low, in large measure because it assumed that a Positive Train Control (“PTC”) system could be installed at the outset of the DRR's operations in 2009. However, the technology

for PTC systems did not exist at that time, nor do all components for them exist even today. *See* NS Reply III-F-220 to III-F-226. The DRR would have to install a Centralized Traffic Control (“CTC”) system for the period 2009-2015 and then install an “overlay” PTC system that would be operational by the December 2015 statutory deadline for such systems. *See id.*

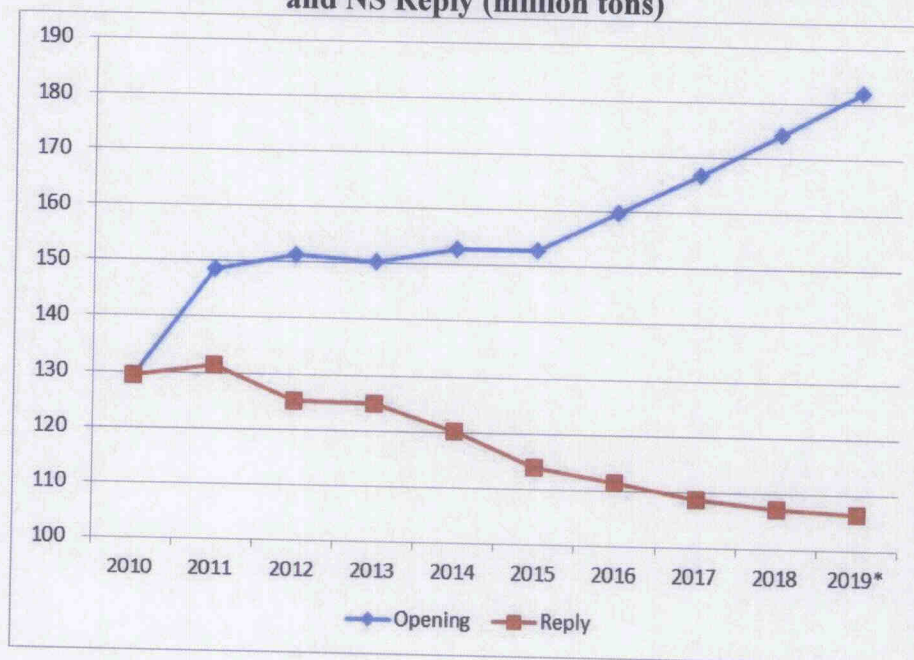
- In stark contrast, NS provides evidence based on prior Board decisions and engineering reality that supports its conservative estimates for building the DRR through the varied terrains and areas which it traverses.

V. DuPont Significantly Overstated the DRR’s Revenues By Using Outdated and Demonstrably Incorrect Forecasts, Claiming Revenues to Which It Would Not Be Entitled, Inappropriately Escalating Fuel Surcharge Revenues, and Improperly Allocating Cross-Over Traffic Revenues.

- DuPont’s use of gimmickry to juice the DRR’s volumes and revenues is unparalleled—from coal projects whose existence is undermined by daily newspaper reports to its claiming revenues that NS itself does not collect. In addition, DuPont makes computational errors of a sizeable magnitude when allocating revenues between the DRR and the residual NS.
- DuPont projected the DRR’s coal volumes using an outdated 2010 NS forecast generated before the precipitous decline in coal demand resulting from the widespread displacement of coal-fired electric power generation by gas-fired generation. *See* NS Reply III-A-6. Despite this reality that has been extensively reported in many newspapers and the trade press, DuPont manufactured growth estimates based on a single NS internal forecast that has been proven dramatically wrong while ignoring the fact that the coal market has substantially changed—

indeed has endured a “sea-change” since 2010. *See Xcel*, 7 S.T.B. at 639 (rejecting manufactured growth rates). NS’s Reply Evidence corrects this error by using the Board’s preferred data source, namely the Energy Information Administration’s *Annual Energy Outlook 2012* for actual and projected coal volumes, which results in the drastic shift in coal volumes shown below. *See id.* at III-A-42; *See Duke/NS*, 7 S.T.B. at 397-98 (served Feb. 3, 2004) (technical corrections decision) (adopting EIA data rather than demonstrably inaccurate internal forecasts) *TMPA II*, 7 S.T.B. at 821-22 (EIA more reliable forecast).

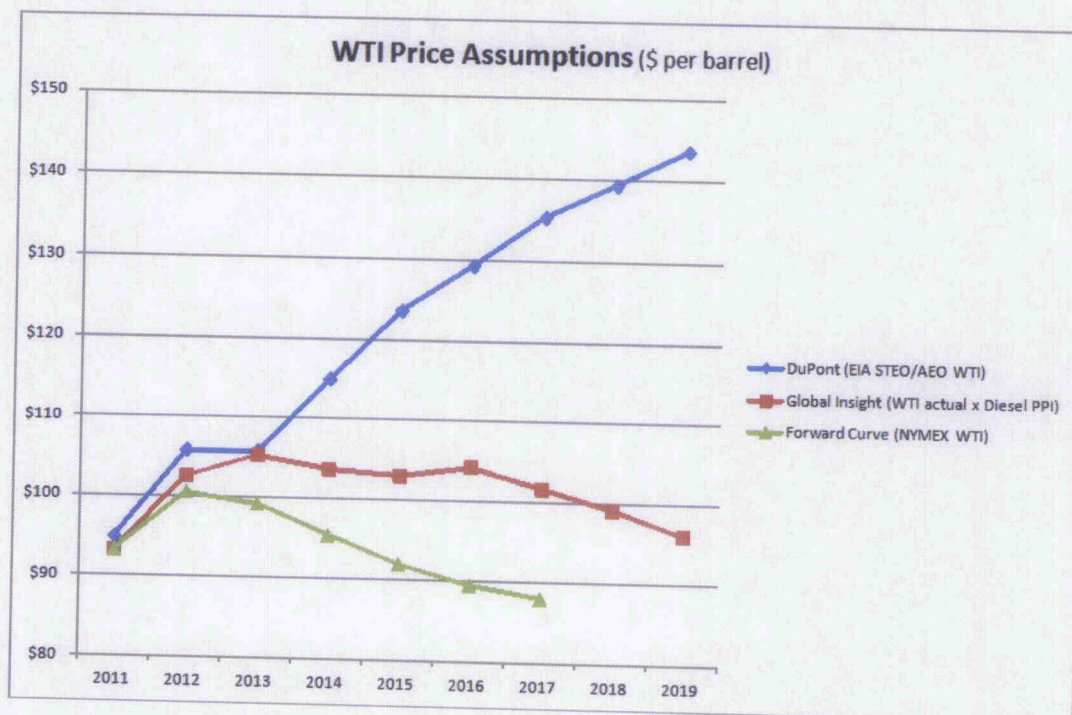
Chart III-A-8 DRR Coal Volumes Under DuPont Opening and NS Reply (million tons)



- DuPont improperly attributed to the DRR revenues earned by NS subsidiaries TCS and TDIS, which provide non-rail services to their customers. *See NS Reply* III-A-63. **Despite Board precedent to the contrary, DuPont claimed for the DRR revenues that NS itself does not collect.** *See e.g., AEPCO 2002*, 6 S.T.B. at 328. DuPont did not account either for the capital costs or for the operating expenses required for TCS and TDIS to provide those services, so the DRR could

neither perform those services nor collect non-rail revenues from TCS and TDIS customers. See, e.g. *Coal Rate Guidelines*, 1 I.C.C. 2d 520, 542-43; *AEPCO 2011*, STB Docket No. 42113, at 4-5 (SAC analysis must develop and present “investment requirements and operating expense requirements (including such expenses as . . . personnel, material and supplies, and administrative and overhead costs)” in order to generate the revenue requirements of the SARR).

- DuPont significantly overstated fuel surcharge revenues by using one fuel index that is projected to remain relatively flat over the SAC period to model the DRR’s fuel expenses, but it illogically and willfully used a different price index that projects large increases in the fuel surcharge revenues that the DRR would supposedly collect. See NS Reply at III-A-71.



The graph above shows that while the index DuPont chose to use for calculating fuel surcharge revenues shows a substantial, steady increase in fuel prices to very

high levels, two other respected indices alternatively predict that fuel prices will be largely flat or in decline modestly through 2019. **But egregiously, while using the highflying, outlier forecast for fuel surcharge calculations, DuPont used the Global Insight forecast for DRR's fuels costs.** See NS Reply WP "WTI & FSCcalc.Reply.xlsx." This is a blatant and unsupported sleight-of-hand that NS remedies in its Reply Evidence by applying the same index (i.e., the RCAF fuel index) to both expenses and revenues.

- DuPont excluded significant off-SARR miles in its allocation of revenues generated by cross-over traffic (which accounts for four-fifths of DRR traffic by revenue). The result of this widespread and substantial exclusion of distances traversed by cross-over traffic on the lines of residual incumbent NS is a significant under-allocation of revenues to NS and a corresponding over-allocation of revenues to the DRR. See NS Reply III-A-81. NS's Reply Evidence corrects this error by using accurate mileages in the calculation of cross-over traffic revenue allocations. When corrected, overall ton miles traveled over the residual NS in the ATC calculations more than double, from 22 billion to 49 billion, and the DRR ton miles as a percentage of the total ton miles for DuPont's selected traffic drop from 86% to 74%.
- DuPont allocated cross-over traffic revenues using the so-called "Modified ATC" methodology that the Board created and applied in the *Western Fuels* case. That methodology was rejected by the D.C. Circuit and at all times relevant to this case was not in force. NS has accordingly applied the original ATC allocation

methodology, which is the only legally valid revenue allocation methodology applicable to this case, in its Reply Evidence. *See* NS Reply III-A-87.

VI. Contrary to Its Claims Otherwise, DuPont Significantly Understated DRR Expenses for Such Important Items as G&A, Maintenance-of-Way, Leased Facilities and Insurance.

- Despite claiming that the DRR's G&A staff "is consistent with G&A staffing for the SARRs approved by the Board in recent SAC cases" (DuPont Opening III-D-13), nothing could be further from the truth. In reality, **DuPont claims that the DRR would spend less than one percent of its annual revenues on G&A expenses—despite the fact that the average Class I railroad spends more than 8% of revenue on G&A expenses and no Class I railroad spends less than 4.5% of its revenues for such expenses.** *See* NS Reply III-D-47 to III-F-48.
- DuPont was required on opening to explain why its proposed G&A expenses were consistent with real world experience (which they are not), or if such expenses were lower than in the real world (which they are by a large margin), to explain why such low levels would be realistic. It did neither. DuPont's claim of consistency with past SAC cases is demonstrably false. As shown in the table below, DuPont's proposed G&A expenses are about one-third the G&A expenses the Board found reasonable in the next closest case—despite the DRR being a Class I and handling a much larger network and traffic group than any previous SARR.

Comparison of DuPont G&A Spending to Board-Approved G&A Spending In Past Cases²

Case	G&A Spending (in millions)	Revenue (in millions)	G&A Spending as Percentage of Revenue
<i>Duke/NS</i>	\$13.0	\$487.1	2.7%
<i>CP&L</i>	\$13.0	\$453.7	2.9%
<i>Duke/CSXT</i>	\$12.6	\$496.8	2.5%
<i>Xcel</i>	\$10.4	\$341.5	3.0%
<i>Otter Tail</i>	\$13.3	\$581.7	2.3%
<i>AEP Texas</i>	\$12.5	\$384.2	3.3%
<i>WFA</i>	\$11.0	\$218.4	5.0%
<i>AEPCO</i>	\$58.3	\$2,075.8	2.8%
DuPont Opening	\$57.6	\$6,642	0.87%

DuPont claims these absurd staffing levels without providing credible support for them and with no benchmarking to justify their reasonableness. *See, e.g., AEPCO 2011*, STB Docket No. 42113, at 58 (criticizing parties for not providing benchmark analyses or any other sufficient explanation for staffing levels chosen). NS's Reply Evidence appropriately sizes the DRR's staff to be a best-in-class railroad by using careful analysis and benchmarking. *See NS Reply III-D-73 to III-D-77.*

- DuPont claims that the DRR will enjoy below-average G&A spending because it can expect other railroads to perform marketing and customer service functions for its overhead traffic. *See NS Reply III-D-87.* But in *AEPCO 2011*, the Board specifically and unequivocally rejected the exact same theory. *AEPCO 2011*, STB Docket No. 42113, at 56-57.

² *See NS Reply III-D-57.*

- DuPont's maintenance-of-way ("MOW") staffing is grossly insufficient to properly maintain the DRR's expansive network of high-density lines. In recent SAC cases the Board has found reasonable MOW staffs averaging one field worker for every 4.1 track miles. *See* NS Reply III-D-199.

MOW Staffing in Recent SAC Cases³

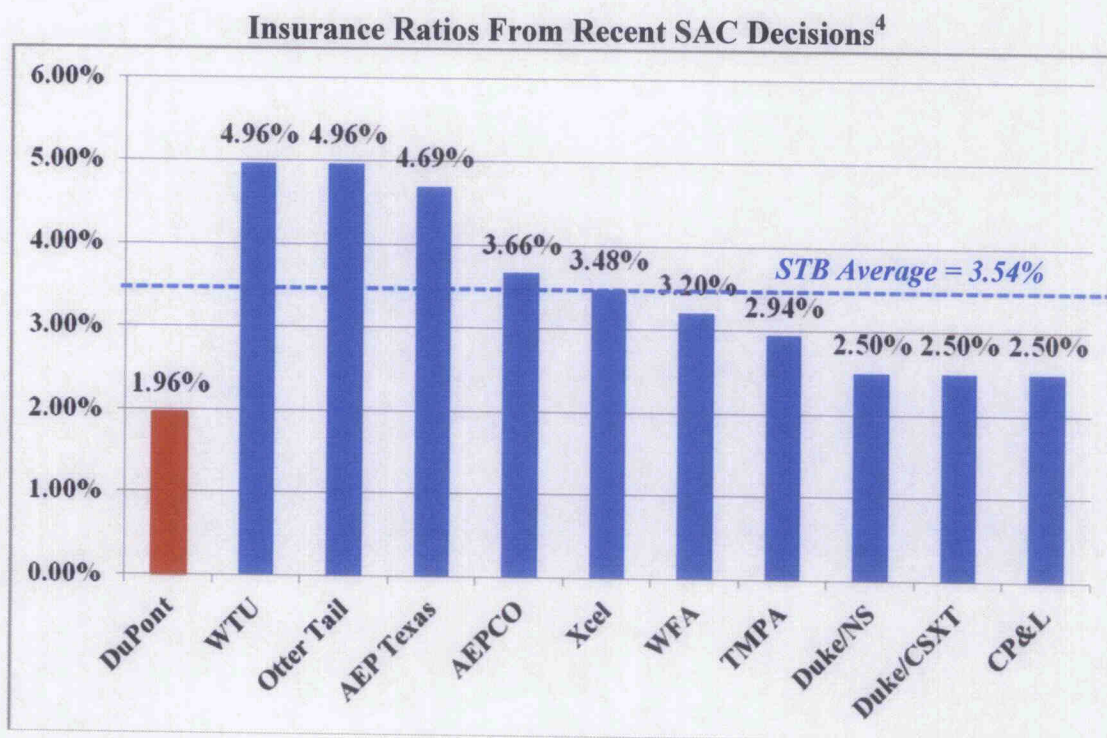
	<i>AEPCO 2011</i>	<i>WFA</i>	<i>AEP Texas</i>	<i>Otter Tail</i>	<i>Xcel</i>	DuPont Proposal For DRR	NS Proposal For DRR
MOW Staff	559	97	488	437	166	1006	2267
Track Miles	3326	391	1664.1	1485	552.77	10462	10639
MOW Staff-to-Track Miles	5.9	4.0	3.4	3.4	3.3	10.4	4.7

- DuPont asserts that the DRR would require only one field worker for every 10.4 miles, but it offers nothing to explain or justify how and why it would be able to operate with such patently low staffing. *See id.* at III-D-199.
- DuPont similarly claims that the DRR could operate with Roadmaster (*i.e.*, MOW supervisory personnel) territories averaging 200 route miles, approximately twice the size of those approved by the Board in prior cases. *See AEPCO 2011*, STB Docket NO. 42113, at 66-67(110 miles); *WFA I*, STB Docket No. 42088, at 57 (109 miles). DuPont's approach is also too simplistic, both because it focuses just on route miles (ignoring additional maintenance needs for second main tracks, setout tracks, and yard tracks) and because it does not account for factors such as track density, terrain, and climate conditions. *See* NS Reply III-D-210 to III-D-215.
- DuPont heavily relies upon existing NS joint use and trackage rights agreements for DRR operations, but it repeatedly misused and misinterpreted those

³*See* NS Reply III-D-199.

agreements, claiming rights for the DRR that NS does not enjoy. Among other errors, it repeatedly miscalculated trackage rights fees; improperly routed traffic over certain trackage rights segments (both in violation of the trackage rights agreements themselves and contrary to what the movement event data produced to DuPont reflect); and failed to construct essential track in the Chicago area, thus making it impossible for the DRR to connect there with BNSF and UP. *See* NS Reply III-D-268 to III-D-276.

- As with G&A and many other categories of expenses, DuPont claimed unprecedentedly low insurance expenses that its own evidence shows to be far out of line with the narrow range of such expenses accepted by the Board in prior cases.



And it did so in part by cherry-picking NS's insurance costs as a percentage of operating expenses for the lowest year in the past decade, rather than taking an average of those expenses over the ten-year period. *See* NS Reply III-D-277 to III-D-278. Given that DRR handles substantial amounts of TIH traffic, its insurance would be on the higher end of the range.

VII. DuPont's Efforts to Blame the Adequacy of NS Data for the Numerous Errors in Its Evidence Are Unavailing and Simply Constitute an Effort to Create a Smokescreen for Its Evidentiary Failures.

- As NS explains in detail in Section III-C of its Reply Evidence, it is DuPont's faulty methodology, and not NS's data, that led it to develop an operating plan that is devoid of car movement detail, is missing trains, and has no feasible local train service plan. In particular, DuPont's problems flow from its decision to rely on train data, rather than the more specific car, locomotive, and intermodal event

⁴ *See* NS Reply III-D-277.

data in its possession. DuPont simply jettisoned the car-specific shipment-level data that NS produced to it when putting together its case.

- Moreover, DuPont's development of its Car/Train Database illustrates that it had the data needed to develop a carload operating plan (as it should have for the DRR's massive car-load network). *See* NS Reply III-C-25. DuPont linked waybill, train, and car movement data for use in developing traffic and revenue data, but it failed to use that same database to model the DRR's operations. *Id.* at 26. DuPont has only itself to blame for that significant failure.
- DuPont had all the data necessary to develop the detailed operating plan required by the Board's regulations. *See* NS Reply III-C-23-34; Exhibit III-C-7.

VIII. DuPont Cannot Salvage Its Case on Rebuttal. The Failures of Proof and Other Profound Deficiencies in Its Opening Evidence Cannot Be Excused, Nor Can It Be Permitted To "Redo" Its Evidentiary Presentation.

- The pervasive failings in DuPont's Opening Evidence are so significant that they cannot properly be addressed on Rebuttal with "tweaks" or minor corrections. Rather these failings are exactly the type that the Board expressly warned DuPont about when granting it a second extension of time to ensure that the Complainant "has enough time, after assembling a full set of information, to develop its evidence without shortcuts." (Decision issued herein on January 13, 2012, emphasis added); *see also General Procedures*, 5 S.T.B. at 44-46. And they are the types of failings that a Complainant is not allowed to change after it and the Defendant railroad have put forward their initial and reply evidence and argument. *IPA*, STB Docket No. 42127, at 3 ("It is the duty of the complainant to make its best case on opening. . . A complainant may not significantly modify the

foundation of its case after it and the defendant carrier have put forward their initial evidence and arguments”). This means that DuPont is foreclosed from presenting any new evidence on Rebuttal to respond to the many errors and all of the omissions in its opening filing that are addressed in the NS Reply Evidence.