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July 20, 2004

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Via Hand Delivery

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K St. N.W.
Washington, D.C. 20423

RE: STB Docket No. 42071, *Otter Tail Power Company v. The Burlington Northern and Santa Fe Railway Company*

Dear Secretary Williams:

Please find enclosed for filing the original and ten (10) copies of Complainant's Reply to Defendant's Motion to Strike (Public Version) and Complainant's Motion for Technical Conference in the above referenced proceeding. Also enclosed are three (3) sets of compact disks containing the electronic version of the Reply (Public Version) in PDF format and (3) sets of diskettes containing the electronic version of the Motion in Word format.

An extra copy of the filings are enclosed for stamping and returning to our offices.

Should you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Sincerely,

Nicholas J. DiMichael
Jeffrey O. Moreno
Counsel for Complainant

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cc: Counsel for Defendant

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Docket No. 42071



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streamlined process that will allow the parties to assist it to determine whether Otter Tail's rebuttal evidence modifications to the string model do in fact address the errors identified in BNSF's reply evidence.

Hence, Otter Tail proposes a Technical Conference to address all of the above interests. The overarching purpose of the proposed Technical Conference is to narrow the issues in dispute concerning the string model and to assist the Board to determine whether Otter Tail's Rebuttal Evidence has corrected the technical errors identified in BNSF's Reply Evidence. Thus, the scope of the Technical Conference should be defined by, and limited to, the criticisms that BNSF has leveled at the string model in its Reply and Supplemental Reply Evidence. Otter Tail has attempted to identify all of those issues in Exhibit 1, and offers Exhibit 1 as the starting point for narrowing the issues to be addressed at the Technical Conference.

Otter Tail proposes that the Technical Conference be conducted as follows:

1. Ten days before the Technical Conference, BNSF would inform the Board which issues in Exhibit 1 it no longer disputes. As to those issues that BNSF continues to dispute, BNSF also would present its evidence that Otter Tail has committed an error and has not corrected it. The Technical Conference then would be limited only to the contested issues.
2. At the Technical Conference, as to each contested issue, Otter Tail would explain either why the issue does not present an error in the string model or how Otter Tail has corrected the error in its Rebuttal Evidence.
3. Next, BNSF would reply to Otter Tail's presentation.
4. Last, Otter Tail would offer rebuttal to BNSF's presentation.

Throughout the conference, Board staff would be free to ask questions of both parties.

This process would enable the Board to fully evaluate Otter Tail's Rebuttal Evidence modifications to the string model. In so doing, the process would address BNSF's concern about the Board's ability to assess the validity of the string model analysis, without the assistance of

the parties, due to the model's alleged complexity.⁸ It also would guarantee Otter Tail's procedural right to submit rebuttal evidence in response to BNSF's reply evidence on the string model. In addition, the Technical Conference would narrow the issues for the Board to decide by requiring BNSF to definitively state whether or not it agrees that Otter Tail has corrected specific errors in the string model. Finally, the Board itself will have a more complete understanding of the evidence.

WHEREFORE, for the foregoing reasons, Otter Tail asks the Board to schedule a Technical Conference to address Otter Tail's rebuttal evidence modifications to the string model, in accordance with the format described herein.

Respectfully submitted,



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Dated: July 20, 2004

*Attorneys for Complainant
Otter Tail Power Company*

⁸ The string model is no more complex than the RTC Model used by BNSF. However, the complexity of the RTC Model cannot be fully evaluated because BNSF has not produced the uncompiled code and algorithms behind it.

CERTIFICATE OF SERVICE

I hereby certify that on this 20th day of July, 2004, I served a copy of "Complainant's Motion for Technical Conference" by hand delivery to counsel for Defendant at the following address:

Samuel M. Sipe, Jr., Esq.
Anthony J. LaRocca, Esq.
Brooke L. Gaede, Esq.
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Jeffrey O. Moreno

SYNOPSIS OF STRING MODEL ISSUES

Issue #	BNSF Reply Page #	BNSF Critique	OTP Rebuttal Page #	OTP Response
1	III.B-13	Overloaded Sidings 142 incidents in peak week	III-B-43	BNSF Overstates incidents by 50% - Includes trains outside Oct. 11-18 period. - Mistakes a double track segment as siding. - Counts multiple mainline passes of same train on a siding as separate incidents. - OTP has manually corrected for 21 trains.
2	III.B-16	Missing Empty Trains 207 loaded trains do not return as empty during modeled period. 23 trains do not return on peak day.	III-B-45	BNSF overstates number of missing trains. 68% of these trains would return outside the simulation period. - Omitted trains moved only a very short distance to Converse and Donkey Creek, with little impact on SARR operations. - OTP has added missing trains in rebuttal.
3	III.B-16	16 Hour Delays at Glendive Yard	III-B-46	A mis-labelled location in the string program caused long dwell times. OTP has corrected on rebuttal.
4	III.C-21	String model overstates tractive effort of SD70MACs at >10 mph	III-C-19	OTP has corrected formula on rebuttal. OTP's formula is the same as the RTC Model chart that BNSF uses to attack OTP's Dash 9 tractive effort.

Exhibit 1

Issue #	BNSF Reply Page #	BNSF Critique	OTP Rebuttal Page #	OTP Response
5	III.C-23	OTP adds the five resistance factors even though three of the factors (rolling, speed-related, and air drag resistance) are measured in different units.	III-C-21	OTP has corrected on rebuttal.
6	III.C-24	Assumes trains in opposite directions traverse exact same grade.	III-C-22	OTP has corrected on rebuttal.
7	Supp. Reply III.C-7 to 9	String model does not accurately incorporate statistics for train operations associated with entering, loading at, and departing from mines. Accumulates mine loading time only for empty coal trains.	III-C-27 to 29	BNSF misunderstands, or misrepresents, the workings of the string model, and overstates a few minor flaws, which OTP has corrected. This is not an error. The string model only accumulates loading time for empty coal trains because the addition of loading times to both empty and loaded trains would be a double-count.
8		- Only includes loading times for empty coal trains in the prevailing direction. - Even then, the string model ignores mine loading time for 86% of the loaded coal trains on the peak day. - String model does not accumulate mine loading time for any of the 64 loaded coal trains dispatched on the peak day.		- BNSF is partially correct. - String model inadvertently omits trains in the non-prevailing direction; OTP has corrected this issue on rebuttal. - Since 25% of the loaded trains on the peak day were dispatched before 6:00 a.m., the empties preceding them arrived on the prior day and thus are outside the period during which service units are aggregated.

Exhibit 1

Issue #	BNSF Reply Page #	BNSF Critique	OTP Rebuttal Page #	OTP Response
9		String model omits empty coal trains moving to Black Thunder and Jacobs Ranch Mines.		OTP has fixed the string program to include loading times for Black Thunder and Jacobs Ranch trains.
10	Supp. Reply III.C-9	Disconnect exists between operating statistics reported in the service units file and the train movement data in the times file, which cause anomalies between the transit times captured by the times files and the service units file. - String model calculates transit times for certain segments of the OTRR that are never reported in the times file or an intermediate output file. - String model does not aggregate the time associated with certain train delays.	III-C-29	BNSF attempts to create a non-existent problem by distorting and misrepresenting the operation of the string model. - OTP provided all program inputs, outputs and code files allowing STB to see how and where all transit and dwell times are used and developed within the string model. - On rebuttal, OTP provided a reconciliation of its transit times, loading hours and delay times produced by the string model, and based its service unit calculations on that reconciliation.
11	III.B-13	Inability to Detect T-Bone Collisions 17 incidents on peak day. 53 instances in peak week. - Caused by instantaneous train deceleration.	III-B-42	BNSF is wrong because it made an error in its analysis. - BNSF inserted additional code into string program to analyze T-Bone collisions. - String model has acceleration and braking subroutines that preclude instantaneous deceleration. - Although BNSF's modification captured acceleration and braking data, BNSF only used the acceleration data in its analysis.

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12	III.C-21	String model overstates tractive effort of Dash 9 locomotives at <10 mph.	III-C-19	BNSF is wrong. • OTP documents its tractive effort. • BNSF refers only to an unverified chart from the RTC Model.
13	III.C-23	Air drag resistance calculations treats all cars as exhibiting the same resistance.	III-C-22	BNSF is correct, but issue is meaningless. • OTP conservatively used a factor that is greater than most cars on the OTRR exhibit. • OTP factor is greater than the RTC Model's air drag factor. • Thus, any discrepancy favors BNSF.
14	III.C-25	String model understates curve-related resistance for curved track >2 degrees.	III-C-22	BNSF is wrong. • OTRR has automatic lubricators on all track curves greater than 2 degrees. • AREMA states that rail lubrication practically eliminates curve resistance on curves up to 9 degrees.
15	III.C-23	String Model lacks a starting resistance variable.	III-C-21	BNSF is wrong. • Modified Davis equation accounts for resistance during train starts.
16	III.C-25	String Model ignores municipal speed limits.	III-C-23	BNSF is wrong. • BNSF has presented no evidence of municipal speed limits. • BNSF's own trains routinely exceed the alleged speed limits.

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17	II.C-25	String Model's use of average speed limits understates transit times.	III-C-25 III-B-27	BNSF has not proven this to be true. - BNSF's evidence based on comparison with RTC Model transit times. - RTC Model flawed (e.g. understates locomotive HP, incorrect elevations, inconsistent curve criteria).
18	III.C-27	String Model generates erratic and physically impossible speed fluctuations.	III-C-26	BNSF is wrong. - BNSF intentionally misrepresents string program data, using an inconsistent time scale to create the graphical appearance of widely fluctuating speeds. - When BNSF's analysis is corrected to display graph on a consistent time basis, the erratic appearance disappears.
19	III.B-14	Failure to Link Empty and Loaded Coal Trains - Ignores PRB Mine congestion. - Some trains disappear entirely.	III-B-37	This is not a flaw, but a constraint imposed on any simulation that uses real world dispatch times in hypothetical SARR operations. - RTC Model has same issue. - Because SARR is more efficient than BNSF, trains return faster.
20	III.B-25	OTP should have modeled a peak week. - Need to ensure network can sustain peak periods longer than a day. - Selection of peak day ignored empty trains. - OTP peak not same as peak time on Glendive-Fargo line segment.	III-B-46	OTP followed same approach as FMC. - BNSF Witness Wheeler advocated same approach in FMC, even though he attacks it now. - Return date of empty trains cannot be known because a function of off-SARR times. - Peak day must be based on entire system, not isolated parts.