Exhibit No._____ (BR-1T)

BEFORE THE WASHINGTON STATE

UTILITIES AND TRANSPORTATION COMMISSION

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| CHELAN COUNTY,<br><br>Petitioner<br><br>vs.<br><br>BNSF RAILWAY COMPANY,<br><br>Respondent | DOCKET NO: TR-061142<br><br>PREFILED TESTIMONY OF BRUCE ROPER |

INTRODUCTION

**1. Please state your full name and job title.**

Bruce Roper, Structures Supervisor, BNSF Railway Company.

**2. Please describe your position with BNSF Railway Company (BNSF).**

I have been employed by BNSF Railway Company (BNSF) for approximately 28 plus years. During my employment with BNSF, I have worked as Bridge Inspector, Foreman, Assistant Structures Supervisor, and Structures Supervisor, including the last four-and-one-half years as Structures Supervisor based out of BNSF's Everett, Washington office.

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**3. Please explain your background and qualifications for working on railroad bridge maintenance and safety.**

I have worked in the structures department my entire career at BNSF. In general, my duties as Structures Supervisor include the responsibility to make sure bridges in Washington State are properly inspected, ensure bridge maintenance is properly done, and oversee new bridge construction. In my position I am responsible for the construction and maintenance of BNSF's buildings, culverts, tunnels, retaining walls. I also supervise an Assistant Structures Supervisor.

**4. Are you familiar with Chelan County's petition to reconfigure the railroad bridge over the Chumstick Highway and, if so, what is the extent of your knowledge or involvement with that project?**

I am familiar with the railroad bridge involved in that project, which my department inspects two times per year. See Exhibit 1 (bridge inspection report).

**5. Please describe the configuration of the railroad bridge, including its current useful life and whether BNSF plans to replace the bridge on its own initiative in the foreseeable future.**

The bridge was built in 1928, and is a ballast deck bridge. This means that the top is filled with ballast rock, and the tracks lay upon that ballast. If you are standing on the tracks looking across the bridge, it looks like a normal railroad track.

BNSF uses the term "useful life" when a bridge approaches the time it needs to be replaced. Typically, a bridge is either structurally sufficient, or BNSF will assign it a five-year (or shorter) useful life. Many factors are taken into account when BNSF determines a bridge has a five-year (or less) useful life, including the condition of the substructure and superstructure, whether the bridge is rusting or has large cracks, how much the bridge is moving when a train crosses, whether the bridge's foundations are settling, or similar characteristics. A bridge's age is not an automatic measure of whether that bridge is still structurally sound. BNSF does not



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replace bridges solely because they have been used for a set number of years. BNSF replaces a bridge when there is a structural deficiency and an update or replacement is required.

BNSF has a five-year time line plan for bridges starting to get close to the time replacement will be needed. BNSF prioritizes the bridge replacements on the five-year time line, according to each bridge's remaining useful life. If the useful life of one bridge is shorter or running out quicker than anticipated, that bridge would move up in five-year plan for earlier replacement. Once a bridge is deemed by myself and the structures inspector to have approximately two years of useful life remaining, a design engineer from BNSF's headquarters in Fort Worth visits the bridge and performs his own structural assessment to see if the structure supervisor's projection is accurate. The BNSF design engineer has the final authority to determine that replacement is necessary.

In some areas, bridges may tend to last longer than other places. For example, bridges in drier climates generally last longer than bridges in wet or salty climates. Eastern Washington has a fairly dry climate an there is no saltwater like there is in the Puget Sound area. Therefore, bridges usually last somewhat longer in Eastern Washington including Chelan than in Western Washington.

Even though the bridge at issue in this case was built in 1928, it has not been identified as one with a short useful life. The bridge is structurally sufficient. It is not on BNSF's five-year replacement plan. Thus, BNSF does not plan to replace the bridge in the foreseeable future.

**6. Are there any railroad safety concerns with respect to the bridge's design and/or engineering as-is, i.e., is there a "general ill-condition" of the bridge as Chelan has testified? Please explain.**

No, the bridge does not have a general deficiency. If the bridge had any structural defects, they would also be noted on the inspection report (Exhibit 1). BNSF is very careful to make sure its bridges are structurally sound; we do not want to risk any harm to train crews or the public, or incur costly property damage to the bridge, locomotives or traincars.



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**7. Chelan County claims that a negative safety factor of the railroad undercrossing is limited motorist sight distance. Does this present a railroad safety concern with respect to the track or bridge at or near the Chumstick Highway? Why or why not?**

Limited sight distance does not automatically create an unsafe bridge condition. Many BNSF bridges cross roads with curves and limited sight distance.

**8. Chelan County claims that a negative safety factor of the railroad undercrossing is narrow roadway width. Does this present a railroad safety concern with respect to the track or bridge at or near the Chumstick Highway? Why or why not?**

Narrow roadway width does not automatically create an unsafe bridge condition. There are many bridge underpasses on the BNSF system with narrow roadway width.

**9. Chelan County claims that a negative safety factor of the railroad undercrossing is sharing the underpass with Chumstick Creek. Does this present a railroad safety concern with respect to the track or bridge at or near the Chumstick Highway? Why or why not?**

In and of itself, a creek running underneath a trestle does not present a railroad safety concern. Part of my bridge inspection is to observe creek flow and assess waterways running under the bridge structure. To the best of my knowledge, I have never taken issue with the Chumstick Creek or determined that the creek presented any rail safety concern such so that I would have had to issue a slow order (reduce train speed, stop train traffic, or order bridge repairs.

**10. Chelan County claims that a negative safety factor of the railroad undercrossing is limited trestle height. Does this present a railroad safety concern with respect to the track or bridge at or near the Chumstick Highway? Why or why not?**

Again, the answer is no. My understanding is that the bridge clearance (15'3") is taller than the maximum vehicle height, and I am not aware of there having been any problem with clearance in the past.

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**11. Are you aware of any time a school bus has bottomed out under BNSF's railroad bridge? Is that concern a possibility here?**

I am not aware of any time a school bus has bottomed out under the bridge. That is only a concern where an at-grade crossing (no overpass or underpass) is "humped" whereby a school bus with longer distance between the axles might be at risk in that situation. That is not a concern here.

**12. What does BNSF do if there is a vehicle accident at one of its bridges?**

Any time an accident or crash occurs at a BNSF bridge, either myself, the Assistant Structures Supervisor, or the bridge inspector will immediately travel to and inspect that bridge. The Chumstick Highway underpass road configuration, if any accidents have occurred at the underpass due to limited motorist sight distance, has not created a railroad safety concern. Otherwise, we would have had to repair or replace the bridge. In addition, the highway has jersey barriers, which reduce the possibility of a vehicle striking or impacting the bridge structure itself.

If an accident were to somehow compromise the structural integrity of the bridge, I would either issue a slow-order, requiring trains to travel more slowly across the bridge, or close the bridge until repairs could be made.

**13. Has BNSF ever had to issue a slow order or close the Chumstick Highway bridge because of a motor vehicle accident?**

To the best of my knowledge and information, BNSF has never had to issue a slow order or stop train traffic across the bridge.

**14. Chelan County proposes to widen the existing roadway and increase the radius of the curve under the BNSF trestle to improve highway design and public safety at the Chumstick Highway/BNSF undercrossing. Would widening the existing roadway and increasing the curve radius under the trestle improve rail safety? Why or why not?**



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It would not affect, let alone improve, rail safety. Further, BNSF does not agree that there is a safety issue with respect to the bridge. It is too speculative to say that an accident at the bridge would compromise its structural integrity, especially where the posted caution speed limit is 25 m.p.h. and there are jersey barriers. The project is not necessary from BNSF's perspective.

## DECLARATION

I, Bruce Roper, declare under penalty of perjury under the laws of the State of Washington that the foregoing PREPARED TESTIMONY OF BRUCE ROPER is true and correct to the best of my knowledge and belief.

DATED this 28 day of March, 2008.

BRUCE ROPER



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CERTIFICATE OF SERVICE

I am over the age of 18; and not a party to this action. I am the assistant to an attorney with Montgomery Scarp MacDougall, PLLC, whose address is 1218 Third Avenue, Suite 2700, Seattle, Washington, 98101.

I hereby certify that the original and 5 copies of PREFILED TESTIMONY OF BRUCE ROPER have been sent by FedEx to Carole J. Washburn at WUTC and a PDF version sent by electronic mail. I also certify that true and complete copies have been sent via electronic mail and U.S. Mail to the following interested parties:

Judge Patricia Clark
1300 S. Evergreen Park Dr. SW
P.O. Box 47250
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1400 S. Evergreen Park Drive, SW
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Louis N. Chernak
Chelan County Prosecuting Attorney's Office
401 Washington Street, 5th Floor
P.O. Box 2596
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I declare under penalty under the laws of the State of Washington that the foregoing information is true and correct.

DATED this 28th day of March, 2008 at Seattle, Washington.

Lisa Miller, Paralegal



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