Exhibit No._____ (DA-1T)
Docket Nos. TR-140382 and TR-140383
Witness: David Agee

BEFORE THE WASHINGTON STATE

UTILITIES AND TRANSPORTATION COMMISSION

BNSF RAILWAY COMPANY, Petitioner vs. YAKIMA COUNTY, Respondent, YAMAMA NATION, Intervenor.	DOCKET NO: TR-140382 and DOCKET NO: TR-140383 PREFILED TESTIMONY OF DAVID AGEE ON BEHALF OF PETITIONER BNSF RAILWAY COMPANY

Q: Please state your full name and job title.

David Agee, Manager of Field Safety and support, BNSF Railway Company.

Q: Please describe your position with BNSF Railway Company (BNSF).

A: I have been employed by BNSF Railway Company (BNSF), or one of its predecessors, for about 20 and a half years. During my employment, I have worked as a brakeman/conductor, a locomotive engineer, and now as Manager of Field Safety. In general, my current duties include law enforcement and fire department training, and I work with permits for private crossings, and with an internal company program of

close calls with motorists along with promoting railroad safety through the Operation Lifesaver Program.

Q: Please explain your background and qualifications for working on crossing safety issues and potential crossing closures.

A: My training with the BNSF Railway Company includes conductor, locomotive engineer, maintenance of way, and hazardous materials training. I am qualified as a Designated Supervisor of Locomotive Engineers and as a Conductor. As a locomotive engineer /conductor, I know regulations and company rules and have firsthand observations of vehicle and trespasser incidents and close calls.

In addition, I was a volunteer for the Department of Transportation as a Transportation Safety Instructor for Rail Incident Investigations, give Operation Lifesaver presentations, and train volunteers as Operation Lifesaver presenters, though I am not presenting my testimony on behalf of or as an agent of Operation Lifesaver at this time. I also volunteer on the Washington Operation Lifesaver Board of Directors as a Director, and I volunteer on the Oregon Operation Lifesaver Board of Directors as a Vice-Chairman.

Q: What is the purpose of the Operation Lifesaver presentations?

A: Operation Lifesaver is a nonprofit organization designed to educate the public about safety around railroad tracks, particularly the dangers of trying to beat trains, stopping on the tracks, and trespassing on railroad property, including railroad tracks.

Q: You have in front of you Exhibit No. (DA-2), a set of graphics. The first page is titled "Welcome to Operation Lifesaver." Are you familiar with this document?

A: Yes. These are some of the visuals I use in Operation Lifesaver presentations to try to educate the public about safety around train tracks.

Q: Could you explain what they are?

A: Slide two shows the three Es of Operation Lifesaver: Education, Engineering, and Enforcement. Education changes behavior. Engineering typically refers to engineering projects like the signalization of crossings and grade separations. Enforcement is where we bring in partners such as the law enforcement community to explain why it's important for the public to yield to the train, emphasizing the importance of stopping distance.

In the next slide, we talk about the dangers of railroad tracks, including for trespassers, pedestrians and vehicles.

In the slide called "Any Time is Train Time," we talk about the fact that people have to expect trains on any track either direction at any time of day. We emphasize the importance–to the public and the police–of not overtaking another vehicle close to the railroad tracks.

Q: I am looking at the next page, page 7 of exhibit No. (DA-2). Could you explain what this illustration represents?

A: This slide and the one on the next page illustrate a few weight ratios. The weight ratio of a car to a train is about that of a soda can to a car–about 4,000 to 1. I like this analogy because it makes clear what sort of effect a collision would have–a soda can is going to be crushed by a car. People may assume that if a train is going slowly, it is not going to do much damage.

Q: Can you explain what you mean by people not thinking a train is going to do much damage?

A: I think that people do not understand physics. They might think a train might push the car a ways and that there is not going to be much intrusion into the car. But in vehicle/train collisions, people are about 20 percent more likely to die than in

vehicle/vehicle collisions. All railroads considered, we lose two people a day at highway rail grade crossings.

Q: You said at one point that estimating the speed of a train is similar to estimating the speed of an airplane. Could you explain that?

A: It creates an optical illusion. With one vehicle struck by a train I was in, the driver told me that she thought the train was moving more slowly than it was. I know based on my background in aviation that people perceive train or airplane speeds differently. The larger the object, they slower they perceive the speed to be. This is a concept I typically cover in Operation Lifesaver presentations, illustrated on page 13 of Exhibit No. (DA-2).

Q: Have you had personal experiences with close calls where people ignored the warning devices?

A: Yes. I have been a member of train crews that have struck motorists. I have also been involved in incidents involving trespassers and pedestrians. I have been presenting for Operation Lifesaver since 1997, when I had a close call with about 15 high-schoolers. When I was a conductor taking a train out of Phoenix, Arizona, some teenagers on an adjoining road tried to beat the train across the tracks; the last three of them were so close to the train that I could not see them in front of the locomotive and I thought we had hit them.

Q: Why do you think motorists or pedestrians disregard warning devices?

A: There are a variety of reasons. In some cases people cannot see the train and assume it is not there. The public may not understand what a crossbuck is and what behavior is expected of them at highway rail grade crossings. People may just be in a hurry, or distracted. People may also underestimate the threat of a slow-moving train. They fail to understand how long it can take even a slow train to stop.

I think driver impatience also plays into the equation. Drivers may take more risks when they see a long freight train coming down the tracks because they do not want to wait for the train to pass.

Q: In your experience, how long does it take a train to stop?

A: Time and distance are dependent upon many factors. Depending on variable factors such as grade, curvature, weight and other physical factors, it could take a train traveling 70 miles per hour 7,000 or 8,000 feet to stop. At 60 miles per hour, it could be a mile to stop. Even at a slower speed, such as 30 or 35 miles per hour, it could take the train three-quarters of a mile or more to stop. If you look at page 6 of Exhibit No. (DA-2), there is a comparison of the stopping distance at 55 miles per hour for various vehicles. You can see that the freight train takes significantly longer to stop.
Given these facts, by the time a motorist and a train crew can see each other, it is up to the motorist to stop and yield to the train or for the pedestrian not to be on the tracks.

Q: Over your 20 years as a conductor, locomotive engineer, Designated Supervisor of Locomotive Engineers, volunteer for the Department of Transportation as a Transportation Safety Instructor for Rail Incident Investigations, and Operation Lifesaver volunteer and presenter, do you have an opportunity to talk to and learn about motorists' beliefs, attitudes, perceptions, and actions *vis-a-vis* at-grade railroad crossings?

A: Yes.

Q: You have before you Exhibit No. (DA-3), a document titled "Prior Driver Performance land Expressed Attitudes Toward Risk as Factors Associated with Railroad Grade Crossing Violations." Please turn to page 13, where it reads "drivers in general perceived the likelihood of a crash between a train and a vehicle as somewhat less than 4 chances in 10." You do not need to confirm that the statistics in this study are correct,

but please tell us if the analysis illustrates and is in line with your understanding as a railroad professional.

A: Yes, it is.

Q: Is driver perception problematic for railroad operations?

A: Yes. It is a serious safety concern, because motorists may be misjudging the speed due to the optical illusion I mentioned earlier. In addition, motorists may think that they have more warning time than they actually do. When you combine this optical illusion and misperception of time, I think that is one explanation for collisions.

Q: On page 15 of Exhibit No. (DA-3) there is a statement that 14 percent of drivers who responded to a questionnaire believed that it was possible for a fully loaded train traveling at 55 miles per hour to come to a complete stop in 300 feet or less. In your experience do some drivers think it is possible for a train to come to a stop in that distance?

A: Yes, some people believe that. They do not understand the physics involved with the large mass of the train and the speed it is traveling.

Q: Mr. Agee, you also have photographs of train collisions, marked as Exhibit No. (DA-4). Can you describe these pictures?

A: Yes. The first three show various views of a train locomotive that has been derailed. The first one shows the locomotive perpendicular to the track, and the rail itself bent upward. People often think that it takes a tremendous force to derail a train, but that is not always the case. Trains can be derailed by collisions with motor vehicles, or even when in-train forces are the result of emergency brake applications in response to trespassers on railroad property. The fourth photo in that set shows the damage to the truck that caused the derailment.

The fifth photo shows a train that has collided with a truck that appears to be hauling gravel. One of the focus groups for Operation Lifesaver volunteers is professional drivers–it can be devastating when we hit a vehicle like that at a crossing.

The last photo looks like a piece of farm equipment that has been crushed by a train. Slow -moving tractors and other farm equipment are also at risk at grade crossings.

Q: Are these photographs illustrative of the type of incidents you have been describing when trains and vehicles collide?

A: Yes.

Q: Please describe your involvement in the petition to close the Barnhart Road and N. Stevens Road railroad crossings.

A: I have not been involved with the closure of either crossing. During my typical duties, I have looked at many of the crossings along this corridor.

Q: Do you believe the N. Stevens Road and Barnhart Road grade crossings should be closed? Why or why not?

A: Yes, I believe the crossings should be closed because they present a safety threat to the traveling public. The Railroad-Highway Grade Crossing Handbook states that crossings should always be considered for closure. Crossings are dangerous if motorists do not obey traffic laws, and traffic devices do not solve all the problems because, as my experience indicates, the public often disregards safety warning devices. The more grade crossings there are, the greater the risk to the public. Simply put, the safest crossing is the one that does not exist.

DECLARATION

I, David Agee, declare under penalty of perjury under the laws of the State of Washington that the foregoing PREPARED TESTIMONY OF DAVID AGEE is true and correct to the best of my knowledge and belief.

DATED this 29 day of December 2014, at Lakewood, Washington.

DAVID AGEE

DATED this 30th day of December 2014.

Montgomery Scarp, PLLC

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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, PLLC, whose address is 1218 Third Avenue, Suite 2500, Seattle, Washington, 98101.

I hereby certify that the original and 3 copies of PREFILED TESTIMONY OF DAVID AGEE has been sent by FedEx to Steven King at WUTC and a PDF version electronically filed. I also certify that true and complete copies have been sent via electronic mail to the following interested parties:

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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 31st day of December 2014 at Seattle, Washington.

Lisa Miller, Paralegal