



2601 SR 509 North Frontage Road

Tacoma, Washington 98421

TACOMA PUBLIC UTILITIES

Date: September 21, 2015

To: Executive Director and Secretary
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive S.W.
P.O. Box 47250
Olympia, WA 98504-7250

Re: **Rulemaking to Consider Adoption of Rules Relating to Rail Safety
Docket TR-151079**

Tacoma Rail respectfully offers the following comments in response to the Notice of Opportunity to File Written Comments related to the matter referenced above:

In the section related to determining insurance adequacy to cover costs associated with a reasonable worst case spill of crude oil, it is our belief that the kinetic energy equation being used in the justification of assumptions is flawed. Specifically, by subtracting the speed ratio squared from the number one, a result is reached which differs from the presumed intent. As an example to demonstrate this, by changing the train speed from 45 mph to 10 mph the equation yields the result of 98% rather than the more representative result of 2%. The correct formula should simply use the speed ratio squared without subtracting that ratio from one. (See graphical representation).

Secondarily, as currently written, the proposed regulation is imbalanced in that it gives no consideration for railroads that operate at speeds of less than 45 mph, and in our opinion should give consideration to railroad operations that differ from the statewide maximum train speed scenario. For example, Tacoma Rail operates HHFT at speeds not to exceed 10 mph, and the corresponding kinetic energy encountered during a potential derailment at lower speeds would likely result in a significantly more modest reasonable worst case scenario.

Currently Tacoma Rail holds insurance coverage of \$50/\$100 million per occurrence/aggregate which we consider to be adequate; if passed as currently drafted, the proposed regulation would mandate that Tacoma Rail's insurance coverage requirements would unnecessarily increase to a level in excess of \$570 million by our calculations. Moreover, Tacoma Public Utilities is currently conducting an insurance adequacy review for all of its operating divisions, including Tacoma Rail, through a contract with a third party insurance industry expert, although the results of that study are not yet available for consideration.

For these reasons, Tacoma Rail respectfully urges the Washington State Utilities and Transportation Commission to reconsider how the draft regulation is written and incorporate the correct formula used in relation to commodity volumes and train speeds prior to recommending regulatory insurance requirements to Washington State Legislators.

Additionally, with regard to the section concerning safety standards at private railroad crossings, Tacoma Rail has recently made a significant investment to install signage consistent with current Manual on Uniform Traffic Control Devices (MUTCD) guidelines. The investment was necessary to achieve compliance with the new federal Emergency Notification Systems (ENS) regulation prescribed by 49 CFR §234, and a state standard that would require a different signage standard seems unnecessary. Tacoma Rail recommends the WUTC consider incorporating language that would honor investments already made in this area, and only require different signage at private crossings which are not already compliant with current federal standards.

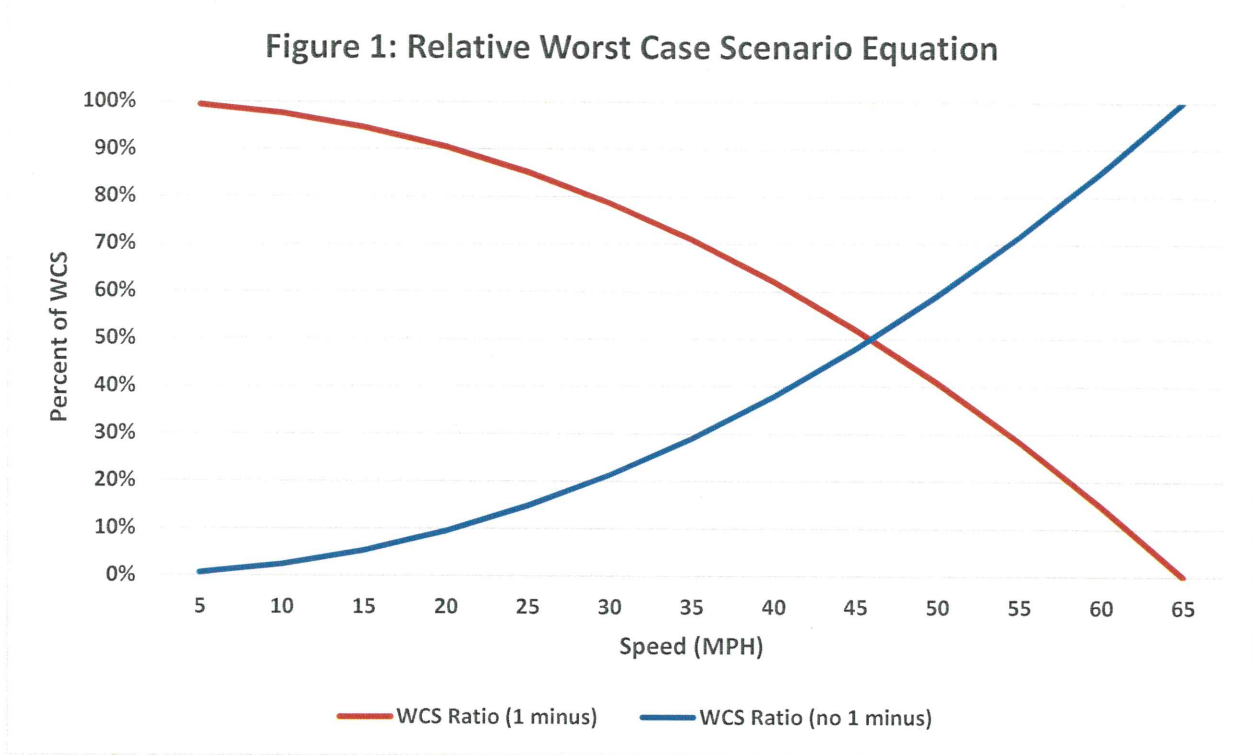


Figure 1 demonstrates the relationship of speed to the percentage of train applicable to proposed insurance coverages. Kinetic energy = $\frac{1}{2}$ Mass x (Velocity)² and PHSMA assumes loaded HHFT's are of equal mass.

In a "scale down" calculation of the Lac-Megantic accident where the train was traveling at 65mph to a Washington State maximum allowable HHFT speed of 45mph; $(45\text{mph}/65\text{mph})^2 = 0.4792846153846154$

The red line utilizes one minus the ratio of speed squared. $(1 - 0.4792846153846154 = 52\%)$

The blue line removes the one minus the ratio of speed squared calculation.

It is Tacoma Rail's belief that the intention of the formula currently in the draft regulation is to assign a higher insurance requirement on Carrier trains traveling at increased speeds relative to the Worst Case Scenario (WCS). By subtracting the ratio of speed squared by one, the formula produces a result contrary to the presumed intent.

As demonstrated in the graph above, using the equation as currently written, the red line indicates that 0% of a train traveling at 65mph should be insured instead of 100% (blue line). Additionally, the blue line on Figure 1 shows the more reasonable effect that speed has on the insurance requirement and would require a Carrier handling HHFT's at speeds not to exceed 10 mph to carry insurance coverage at a level of 2% total volume rather than 48%.

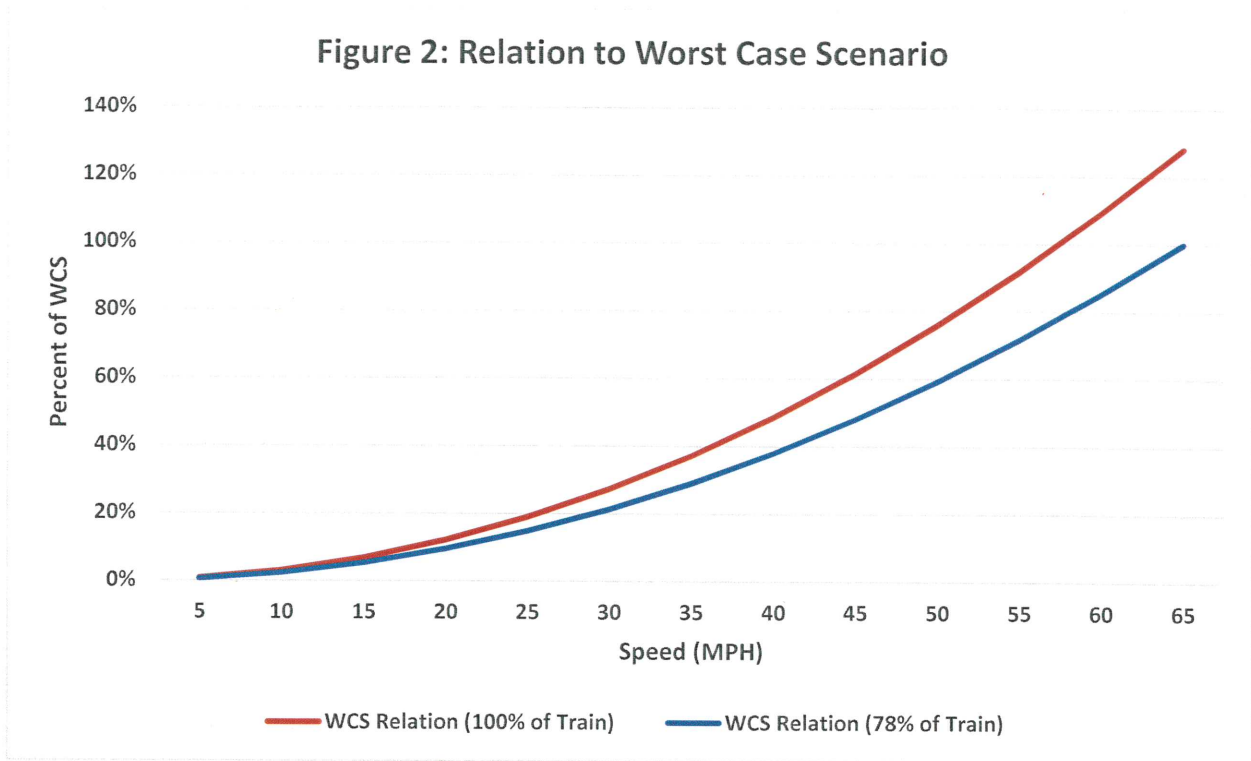


Figure 2 illustrates the need to rewrite the definition of “Reasonable worst case spill” in the draft regulation, given that it is inconsistent with the language in the justification of the assumption of 50% [volume] for a reasonable worst case spill should look at the largest accident in North America.

Here the blue line represents the real world Worst Case Scenario (WCS) of Lac-Megantic, Quebec, in which 78% of the commodity was released.

However, by applying the ratio of speed squared to an entire train, the red line shows that the result would mandate insurance coverage levels at 128% of the volume of a HHFT traveling at 65 mph or the same speed the train was traveling when it derailed in Lac-Megantic, Quebec.

Feel free to contact me directly if you have any questions regarding these comments.

Sincerely,


Dale W. King
Superintendent/COO

Cc: Robert Mack, Deputy Director of Public Affairs, Tacoma Public Utilities
Keith Borman, General Council, American Short Line and Regional Railroad Association
File