

## **BACKGROUND MEMORANDUM**

Docket No.: TR-990656

Company Name: The Burlington Northern and Santa Fe Railway Co.

Other Parties: City of Puyallup, Sound Transit, Washington State Department of Transportation

### **Discussion**

This docket was submitted to an administrative law judge for adjudication. However, the parties reached an agreement. As a result, this matter comes before the Commissioners for the purpose of providing the public an opportunity to comment on the proposed settlement, and to present the settlement to the Commissioners for their consideration. This memorandum provides background for all interested persons.

#### **A. The Railroad's Request.**

The Burlington Northern and Santa Fe Railway Company (BNSF) petitioned the Washington Utilities and Transportation Commission under this docket number to increase speed limits for passenger and freight trains in Puyallup to those allowed by the Federal Railroad Administration (FRA) for the class of tracks maintained in Puyallup. The FRA speed limits are 60 mph for freight trains and 79 mph for passenger trains. Current state imposed speed limits vary from 30 miles per hour to 75 miles per hour for passenger trains, and 30 miles per hour to 50 miles per hour for freight trains depending on the location within the city.

#### **B. Other Parties.**

The City of Puyallup intervened as a party in this matter. Sound Transit also intervened because it operates commuter trains through Puyallup on the tracks owned by BNSF. The rail line that runs through Puyallup is part of a high-speed corridor designated by the federal government. Trains operated by the National Railroad Passenger Administration (Amtrak) use the tracks to implement the corridor concept. The Washington State Department of Transportation is charged with managing the high-speed rail program in Washington. It also intervened due to its direct interest in promoting efficient operation of Amtrak trains.

#### **C. Train Operations and Crossing Characteristics.**

BNSF owns double main line tracks through Puyallup for which a speed increase is sought. Some switching operations occur in the eastern part of the city, and there are seven at-grade road crossings. All of the crossings are signalized and gated. A commuter rail station was built immediately west of Meridian Street in the heart of the city, which primarily serves Sound

Transit operations.

#### **D. Legal Standard**

State law gives the Commission authority to set train speed limits within certain classes of cities, which includes Puyallup. In the most congested and urbanized portions of the cities, the Commission historically set limits less than those currently allowed by the FRA. The federal government subsequently limited states' authority to regulate railroad speed limits. The Commission may set a speed limit lower than that allowed by the FRA only if the lower speed is necessary to eliminate or reduce an "essentially local safety hazard," or upon agreement of the railroad. A precise definition of an essentially local safety hazard does not exist; however, case law makes it clear that such things as highly congested urban areas or crossings do not constitute essentially local safety hazards. Something unusual must be present that heightens the dangers normally associated with railroads, crossings and urban areas.

#### **E. Process.**

BNSF filed the petition on March 29, 1999. The Commission sent a copy to the city of Puyallup. The Commissioners held a public meeting in Puyallup on August 30, 1999, and another in Auburn on August 31, 1999, to gather comments.

Staff investigated the matter by reviewing public comments and by gathering information from a number of sources. We solicited comments from city officials, met with city public works personnel, spoke with local elected officials, and observed the general area and the crossings in Puyallup. Due to issues raised as a result of soil conditions in the area, we consulted with a Department of Natural Resources geologist and a geologist from the University of Washington, and received information from an engineering firm retained by BNSF. We met with the Puyallup school district superintendent and also with local school principals to learn about dangers to children in the many schools near the tracks. We also reviewed the Grade Crossing Diagnostic Project report prepared by Sound Transit.

On August 14, 2000, Staff sent draft recommendations to Puyallup for review and comment. The City requested an adjudicative hearing. Pending the hearing, Puyallup and BNSF negotiated an agreement, and the City withdrew its request for a full hearing. BNSF, WSDOT, Sound Transit and Staff prepared a recommended order that incorporated the agreement between BNSF and Puyallup.

#### **F. Asserted Need for the Speed Increases**

The speed increases are sought to improve the efficiency of train operations and to increase the capacity of the rail lines. Increased freight train speeds are needed to support the growth of the

Ports of Seattle, Tacoma, and Vancouver, which are served by the freight business handled by BNSF. Increased passenger train speeds will improve the service levels of Amtrak operations and will help Sound Transit provide an acceptable alternative for highway users. Additionally, increased speeds will provide the necessary flexibility to efficiently coordinate the use of the rails by the three companies, each of which has different needs and operational characteristics.

### **G. Safety Problems.**

The Commission may only consider safety problems in determining whether to set speed limits lower than those allowed by the FRA. Increased noise, vibrations, property damage and other environmental factors cannot be considered. However, they were considered in an Environmental Impact Statement prepared by Sound Transit as part of its preparations to open commuter rail traffic between Seattle and Tacoma. Interested persons may obtain copies of that study from Sound Transit.

Many people believe that increasing train speeds makes it more likely for accidents to occur at highway/railroad crossings. Although this is true at unsignalized crossings, there is no evidence that it is the case at crossings equipped with signals and gates. The FRA developed, and continues to refine, an accident prediction model based upon a study of thousands of accidents. No relationship has been found between speed and accidents at signalized and gated crossings. All of the public crossings in the affected cities are signalized and gated.

Another common belief is that derailments are more likely if speeds are increased. Again, experience has not borne that out. In any event, the possibility of derailments was the major factor FRA investigated when setting speed limits for each class of tracks. Speed limits were set conservatively and were based on engineering studies. Accordingly, the risk of derailments cannot be the basis for lower speed limits unless some unique problem exists that substantially increases the possibility of a derailment. Staff did not find any unique circumstances that might add to the possibility of a derailment during our review.

Pedestrian safety is also an issue in speed increase considerations. Experience in Washington shows that pedestrians are generally safe at crossings with active warning devices. On the other hand, where people cross tracks at places other than a crossing, the danger increases. Sound Transit built a commuter rail station just west of Meridian Street, but it erected fencing that funnels all passengers to crossings with active warning devices.

Trespassers present a separate problem. They are at greater risk when train speeds increase. The major problem in Puyallup according to public works personnel and school principals was near 15<sup>th</sup> Street NW. BNSF erected a fence to reduce the problem at that point.

### **H. Crossing Diagnostic Study.**

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As part of the process for determining what improvements should be made to accommodate Sound Transit commuter trains on the line between Seattle and Tacoma, Hoy Richards & Associates was retained to coordinate a diagnostic study of all crossings in the corridor. Local highway authorities, Washington State Department of Transportation, Commission Staff, BNSF, and others cooperated in the effort. Suggested improvements include updating circuitry for all crossings, replacing some older signal equipment, constructing median barriers, and connecting some traffic signals with rail signals. BNSF and Sound Transit are committed to constructing all safety improvements recommended in the study before speed increases are implemented. This commitment, which is also included in the proposed order, eliminates many safety concerns.