



STATE OF WASHINGTON

UTILITIES AND TRANSPORTATION COMMISSION

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June 13, 2016

Millennium Bulk Terminals EIS
c/o ICF International
710 Second Avenue, Suite 550
Seattle, Washington 98104

**RE: Environmental Impact Statement Comments
Millennium Bulk Terminals**

Dear Cowlitz County and Department of Ecology:

The Washington Utilities and Transportation Commission (commission) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Millennium Bulk Terminals– Longview (MBTL) project in Longview, Washington.¹ The commission's role in this proceeding is limited to providing comments on the DEIS elements relating to the safety of rail transportation in Washington.

The facility, as proposed at completion, is a coal export facility capable of receiving 44 million metric tons of bulk coal per year by train, storing and blending coal onsite, and loading the product onto marine vessels for delivery to international customers. BNSF Railway Company (BNSF) and Union Pacific Railroad (UP) trains would transport coal in unit trains on BNSF main line routes in Washington to Longview Junction in Kelso, Washington. Longview Switching Company (LVSW) would transport the unit trains from Longview Junction to the proposed project site, a total distance of about seven miles, via the existing BNSF Spur and Reynolds Lead lines. At full build-out, an average of approximately 16 unit trains (eight loaded and eight empty) would travel the spur and lead lines each day.

The commission's primary concern with the proposed project is its ultimate impact on public safety. One aspect of public safety is the probability of more vehicle-train collisions at public

¹ The commission has responsibility under state law for regulating, inspecting, and establishing standards for safety at more than 2,800 public railroad crossings in Washington and private railroad crossings located on routes that carry crude oil tanker cars. The commission also reviews and has approval authority over the construction of new crossings, and alteration, modification, or closure of existing railroad crossings. In addition, the commission partners with the U.S. Department of Transportation Federal Railroad Administration (FRA) and employs FRA certified inspectors to perform inspections in transporting hazardous materials; signal and train control; track; operating practices; and motive power and equipment in support of FRA's regulatory and inspection program.

railroad-highway grade crossings in Washington due to increases in rail traffic. Accordingly, the commission has worked extensively with BNSF and UP over the past few years on the unique issues related to safely transporting energy products, such as crude oil and coal, by rail. The companies have been cooperative in the commission's efforts to address specific concerns relating to the safety of the citizens of the state at public and private crossings and during commission inspections of track, hazardous materials, equipment, signal and train control and operations. The commission generally agrees with the description and impact of coal transportation by rail in the DEIS and the various proposed mitigation measures as they relate to BNSF and UP.

The commission has had far less contact with LVSW and virtually none related to the safe transport of energy products. Our comments therefore, will be generally directed towards the portions of the DEIS that deal with the safe transport of coal unit trains from Longview Junction to the project site by LVSW via the BNSF Spur and Reynolds Lead.

I. DEIS Accident Probability Analysis

The DEIS includes an accident probability analysis conducted on all BNSF mainline public crossings in Cowlitz county; some statewide BNSF mainline public crossings that were apparently identified by the Washington State Department of Transportation as being on or near state highways, and the five LVSW public crossings affected by the proposed project. (See SEPA Vehicle Transportation Technical Report at 2.1.2.7, page 2-12 and Vehicle Transportation 5.3.3.2, pages 5.3-13 & 14).

The accident probability analysis consists almost entirely of using the Federal Railroad Administration (FRA) GradeDec.Net web-based software to estimate the predicted annual accident probability at each crossing in the study. The commission has no concerns with the use of this software for initial analysis. It is a tool sponsored by the FRA that is used nationally by railroad safety specialists, including commission staff, for a wide variety of applications. However, the GradeDec.Net software is of limited analytical value on its own. Rather, this software was designed as an investment planning tool. It was intended to be used by planning, policy, and investment decision makers to evaluate the benefits and costs of various crossing upgrades, grade separations, and crossing closures. It can be used for other purposes, as it is in the DEIS, but only in combination with other site-specific information, and an on-site safety review by local road authorities (e.g., city of Longview), the railroad, commission staff and other interested parties.

While the analysis in the DEIS has produced some preliminary results, the commission does not believe that the results of the analysis can be considered determinative in deciding whether additional safety devices are necessary at the five public LVSW crossings. The GradeDec.Net model captures limited data elements and produces only basic potential starting point results. For instance, the model captures such things as accident history (five years), train and traffic volumes, level of protection, and number of roadway lanes, but does not capture other site specific characteristics such as approach grades, angle of crossing, train and vehicle speeds, and available sight distances. The DEIS rationalizes the importance of these critical elements by stating that "the accident history at these crossings would likely reflect these characteristics."

(Vehicle Transportation, Section 5.3.3.2, Impact Analysis, page 5.3-13). Yet, this statement may or may not be correct: One may expect accident histories at crossings to remain consistent, but the addition of increased rail traffic, congestion at the crossings and continued growth in population could potentially alter the risk in a way that is not consistent with past accidents. The commission urges on the county and Ecology to reject conclusory statements that make assertions on safety without reference to any definitive analysis or academic studies on the subject.

The analysis is further compromised by the use of an unattributed performance measure. In the Vehicle Transportation section at 5.3.3 (Methods) page 5.3-14, the DEIS states, "Based on other applications of the model, a vehicle safety impact was defined as a study crossing that would have a predicted accident probability above 0.04 under the Proposed Action that would be at or below 0.04 under the No-Action scenario." Further, the SEPA Vehicle Transportation Technical Report at 3.1.1.3, page 3-21, states, "For this analysis, a predicted accident probability of 0.04 per year, or one every 25 years, was used as a performance measure for when grade-separation should be considered at study crossings for safety reasons. This was based on a peer review of similar applications of the FRA GradeDec.Net module."

The commission is unfamiliar with this measure and, since it is unattributed, is unable to attest to the validity of its use as a performance measure in the DEIS. The U.S. Department of Transportation, Federal Highway Administration, determined one of the criteria for considering *active devices with automatic gates* is an expected accident frequency as calculated by the USDOT Accident Prediction formula, including a five-year accident history, exceeding 0.075 per year. To be considered for *grade-separation*, the expected accident frequency would be 0.5 per year, or one predicted accident every two years. (See Guidance on Traffic Control Devices at Highway-Rail Grade Crossings, November, 2002, at pages 29 and 30, and Railroad-Highway Grade Crossing Handbook, August, 2007, at pages 149 and 151). To give these numbers context, in Washington there are 78 public crossings (out of 2,800 total public crossings) that currently exceed the 0.04 threshold. There are 25 that exceed 0.075; and no crossing exceeds 0.5. The commission strongly supports crossing safety and would not oppose consideration of grade separation but wants to ensure consistency in the methodology and parameters of grade separation discussions to ensure efforts are focused on those projects that are in greatest need.

Using the previously mentioned performance measure of predicted accident probability, .04 accidents per year, the increased train traffic would result in an adverse vehicle safety impact at the 3rd Avenue crossing (USDOT #101826T).² The analysis shows that predicted accident probability would be above 0.04 accidents per year if the proposal and associated increased train traffic is approved. The commission is concerned that there is no related mitigation measure proposed to address the increased risk and there is no apparent recognition of the finding as an Unavoidable and Significant Adverse Environmental Impact at 5.3.8, pages 5.3-42 & 43 beyond the statement, "The Proposed Action would also result in a vehicle safety impact at the 3rd Avenue crossing of the Reynolds Lead." If the DEIS is adopting a performance measure that would classify a crossing as being higher risk and require thorough consideration of grade separation, there should be a mitigation measure or a reference in the section on Unavoidable and

² Vehicle Transportation Section at 5.3.5.1 (Proposed Action), page 5.3-36

Significant Adverse Environmental Impact noting the impact and its significance. Without these changes, the commission does not believe the project should move forward.

II. Commission Crossing Analysis

The commission accepts the analysis related to BNSF crossings in Cowlitz County and elsewhere in the state. The commission is very familiar with these crossings, having completed its own analyses for other purposes, and is currently working with stakeholders on a number of crossing improvement projects along the same routes as identified in the DEIS. However, the commission does have significant concerns whether the analysis in the DEIS adequately assesses the safety impact of the Proposed Action on the five affected LVSW crossings.

Commission staff conducted its own independent assessment of these LVSW crossings, including review of FRA and commission crossing inventory records and inspection reports, and a preliminary on-site crossing safety review. It found that the five public crossings are adequately protected for current levels of train and vehicle traffic. Although some of the signal equipment is dated, it is still functional and the crossings are in general compliance with state law, commission rules, and the Manual on Uniform Traffic Control Devices (MUTCD) 2009 edition. However, LVSW's analysis does not address the adequacy of safety measures in light of the considerable increase in train traffic that will result from the proposed project.

III. Applicant Proposed Mitigation Measures

In the DEIS, the Applicant offered to fund installation of crossing gates at the Reynolds Lead crossing of Industrial Way "to mitigate the safety impacts from increased rail traffic, before beginning operations." (Vehicle Transportation, Section 5.3.7.1, Voluntary Mitigation, Page 5.3-42). The commission appreciates the Applicant's willingness to fund this improvement at the Industrial Way crossing voluntarily. However, the commission believes more specific language, including an evaluation of the condition of existing signal equipment to ensure the crossing meets safety standards, is necessary.

The process for ensuring the crossings are being properly evaluated for necessary safety measures is important. In addition, in response to increased train horn noise created by the 16 additional train trips along the Reynolds Lead line, the Applicant is willing to fund upgrades to crossings where train horn noise has been identified as severe, particularly in several residential areas. See Voluntary Mitigation at 5.5.71 "To reduce rail noise along the Reynolds Lead, the Applicant will work with LVSW and other stakeholders to convert the Oregon Way and Industrial Way crossings to "quiet crossings". The Applicant will fund additional electronics, barricades, and crossing gates to convert the crossings to "quiet crossings." The commission highlights that there are specific threshold requirements outlined in the Code of Federal Regulations, Title 49, Part 222 to qualify for quiet zones. The Applicant should be responsible for these costs and special consideration should be given by the crossing assessment team when evaluating these crossings for upgrades.

The commission believes that it would benefit all parties to convene on-site safety reviews and assessment of the current signal equipment for each of the five LVSW public crossings before, or in conjunction with, Stage 1a (start-up operations).

IV. Recommended Changes to DEIS

- 1) In the Vehicle Transportation section at 5.3.3.2, page 5.3-14, the DEIS states “Based on other applications of the model, a vehicle safety impact was defined as a study crossing that would have a predicted accident probability above 0.04 under the Proposed Action that would be at or below 0.04 under the No-Action scenario.” Add a footnote specifically identifying the other applications of the model relied upon. Alternatively, use performance measures based upon measures identified in U.S. Department of Transportation, Federal Highway Administration publications mentioned previously.
- 2) In the SEPA Vehicle Transportation Technical Report at 3.1.1.3, page 3-21, the DEIS states “For this analysis, a predicted accident probability of 0.04 per year, or one every 25 years, was used as a performance measure for when grade-separation should be considered at study crossings for safety reasons. This was based on a peer review of similar applications of the FRA GradeDec.Net module (sic).” Add language specifically identifying the similar applications of the FRA GradeDec.Net Module and each specific peer review relied upon. Alternatively, the Applicant must use performance measures identified in U.S. Department of Transportation, Federal Highway Administration publications mentioned previously.
- 3) In the Modify Applicant Mitigation in the Rail Transportation section at 5.1.7.1, page 5.1-23, MM RT - 1 and in the Rail Safety section at 5.2.7.1, page 5.2-10, MM RT – 1, include the commission as an entity that would receive the required report. Currently, this section reads “To address potential impacts to rail capacity on the Reynolds Lead and BNSF Spur, the Applicant will coordinate with LVSW before each identified operational stage (Stage 1a, Stage 1b, and Stage 2) that change average daily rail traffic on the Reynolds Lead and BNSF Spur. The Applicant will prepare a report to document the coordination with LVSW and changes to average daily rail traffic. The report will be submitted to LVSW and Cowlitz County at least 6 months before the change in average daily rail traffic.” The last sentence in both sections should be reworded to “The report will be submitted to LVSW, Cowlitz County and the Utilities and Transportation Commission at least 6 months before the change in average daily rail traffic.” The commission should be notified of these changes in average daily rail traffic so that the inspection work of our FRA certified inspectors can be redirected, as necessary.
- 4) In the Vehicle Transportation section at 5.3.7.1 – Voluntary Mitigation, page 5.3.42, the second bullet reads “To mitigate the safety impacts from increased rail traffic,

before beginning operations, the Applicant will fund installation of crossing gates at the Reynolds Lead crossing of Industrial Way.” The sentence should be reworded as “To mitigate the safety impacts from increased rail traffic, before beginning operations at Stage 1a (start-up operations), the Applicant will fund replacement of existing active warning devices at the Reynolds Lead crossing of Industrial Way (USDOT # 101806G) with shoulder-mounted LED lights and gates.” Commission staff notes that the signal cabinet at this crossing is antiquated and will likely need to be replaced in conjunction with installation of new signal equipment.

- 5) The commission recommends that the Applicant, as part of its required mitigation in the Vehicle Safety section, convene a safety review team consisting of representatives of the Applicant, LVSW, city of Longview, commission staff and other interested parties prior to or in conjunction with Stage 1a (start-up operations). The purpose of the team is to recommend safety improvements at the other four LVSW public crossings and determine what is necessary to create a quiet zone under federal rules. The Applicant should be required to fund safety upgrades recommended by the team, such as replacing eight-inch lenses with the current standard of 12 inch; replacing incandescent lenses with LED lenses; and making appropriate changes to warning signs and pavement markings.

The proposed MBLT project will significantly increase rail traffic in the surrounding area and, indeed, across the state. The safety measures developed and implemented must be sufficient to address this increased traffic. The commission urges Cowlitz County and Ecology not to move forward with this project without the recommendations above.

Sincerely,



Steven V. King
Executive Director