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VIA E-MAIL (FRAWAIVERS@DOT.GOV)

December 11, 2019

J. Karl Alexy
Associate Administrator for Railroad Safety and Chief Safety Officer
Federal Railroad Administration
1200 New Jersey Ave SE
Washington, DC 20590

RE: Petition for Waiver of Compliance from 49 CFR § 232.215(a) Houston Yards Transfer Movements

Dear Mr. Alexy:

Pursuant to 49 CFR § 211.9, BNSF Railway Company ("BNSF") respectfully requests that the Federal Railroad Administration (FRA) grant BNSF a waiver of compliance from 49 CFR § 232.215 (Transfer train brake tests) with respect to transfer movements between BNSF's Old South Yard and New South Yard in Houston, Texas ("Transfer Movements"). Specifically, BNSF proposes to conduct a Class III brake test in lieu of a transfer train brake test prior to making a Transfer Movement governed by this waiver. BNSF believes that the limited waiver it seeks in this context is appropriate because the risk of proceeding with the Transfer Movements without a full transfer train brake test is minimal and is adequately addressed by the conditions BNSF proposes.

A. Background

Transfer Movements between BNSF's Old South Yard and New South Yard require a train to traverse approximately 1,400 feet of main line track on the Houston West Belt Subdivision ("Main Line").[1] The Main Line between the yards is tangent with no obstructions to visibility in either direction and is on a level grade. Track speed on the Main Line at this location is 20 mph, but trains performing Transfer Movements between the BNSF yards operate at 10 mph and would continue to do so under this waiver.

Most of the Transfer Movements between the Yards entail doubling up cuts of cars from two classification tracks in the departing yard for transfer to the receiving yard. Given the short length of the Main Line across which the Transfer Movements are made, a portion of the doubled-up train is already in the arrival track at the destination yard by the time the transfer air brake test could even be performed.

[1] The Main Line at this location is owned by BNSF and leased to the Houston Belt Terminal Railroad (HBT). Union Pacific Railroad Company (UP) dispatches and maintains the Main Line pursuant to a joint facilities agreement between the three railroads. In the prior waiver proceeding, UP was inadvertently identified as the owner of this track. *See* Decision Letter, Docket No. 2001-19949-1 (filed Oct. 20, 2005) (Attached as Appendix B).

BNSF previously petitioned FRA for a waiver on this topic.[2] FRA denied the petition without prejudice principally due to the absence of any conditions or alternate procedures included within the petition to ensure an adequate level of safety.[3] BNSF believes the conditions set forth below will adequately address FRA's concerns.

B. Conditions

BNSF requests that the waiver be granted to permit Transfer Movements to be governed subject to the following conditions:

1. Prior to undertaking a Transfer Movement, the brake pipe will be connected through the entire cut of cars to be moved.

2. Prior to undertaking a Transfer Movement, a successful Class III brake test must be performed on the train performing the Transfer Movement, with air pressure at the rear of the consist verified using an air gauge.

3. All trains performing a Transfer Movement between Old South Yard and New South Yard will be limited to a maximum speed of 10 mph.

BNSF did not include any conditions in its prior petition, seeking essentially that the Transfer Movements be governed as a switching service. Accordingly, these conditions represent a revised approach incorporating FRA's guidance from its denial of the 2005 petition.

C. Costs and Benefits

BNSF believes that operating under the proposed waiver conditions would pose little to no incremental increase in risk compared to current practices. As stated in BNSF's 2005 petition, the locomotive's independent brakes would generally be sufficient to accomplish stops of Transfer Movements given the level grade of the Main Line and the comparatively slight tonnage involved in the Transfer Movements.[4] By lacing the air throughout the entire consist and conducting a Class III brake test verifying brake pipe continuity, substantial additional braking power beyond the independent brakes will be added to the Transfer Movements. Practically, the waiver conditions will ensure that more than enough functional brakes are charged to ensure the safe movement of a cut of cars over 0.25 miles of level grade track at 10 mph.

Additionally, by eliminating the need to conduct a full transfer train brake test, the waiver will eliminate a lengthy ground inspection, reducing the amount of time a qualified person is exposed to potential

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[2] *See* Petition for Waiver of Compliance, Docket No. FRA-2004-19949-1 (filed Dec. 1, 2004) (Attached as Appendix A).

[3] *See* Decision Letter, Docket No. 2001-19949-1 (filed Oct. 20, 2005) (attached as Appendix B). In addition to the above stated reason respecting conditions, FRA also noted that Union Pacific, which was identified as the owner of the Main Line in the Decision Letter, expressed reservations regarding the waiver. As a point of clarification, the Main Line at this location is actually owned by BNSF and leased to the Houston Belt Terminal Railroad (HBT). UP dispatches and maintains the Main Line pursuant to a joint facilities agreement between the three railroads.

[4] Appendix A at 2.

hazards arising from working on the ground between tracks at a busy location, possibly accruing a net safety gain. In addition to these safety benefits, facilitating more fluid movement through this location will provide an economic benefit to the railroads operating through the Houston terminal as well as to the shippers who rely on them. There are no anticipated costs to the private sector, consumers, or to any level of government.

D. Conclusion

For the foregoing reasons, BNSF respectfully requests that FRA grant this petition and permit the Transfer Movements to take place between Old South Yard and New South Yard on the basis of a successful Class III brake test.

Sincerely,

Aaron Ratledge
General Director, Operating Practices and Rules

BNSF RAILWAY AMENDED WAIVER PETITION – DOCKET FRA 2004-19949

Pursuant to the provisions of 49 C.F.R. §§ 211.7, 211.9, and 232.7 , BNSF Railway Company (hereinafter "BNSF") respectfully petitions the Federal Railroad Administration (hereinafter "FRA") for a waiver of compliance with respect to certain provisions of the regulations pertaining to the Brake System Safety Standards ("Power Brake Regulations") 49 C.F.R. § 232.215(a). Specifically, BNSF requests a waiver from §232.215(a) for trains moving a distance of approximately ¼ mile between Old South Yard and New South Yard (collectively referred to as "Yards") in Houston, Texas.

A. The Regulation

49 C.F.R. § 232.215(a) states that:

A transfer train, as defined in §232.5, shall receive a brake test performed by a qualified person, as defined in §232.5 that includes the following:

(1) The air brake hose shall be coupled between all freight cars;

(2) After the brake system is charged to not less than 60 psi as indicated by an accurate gauge or end-of-train device at the rear of the train, a 15-psi service brake pipe reduction shall be made; and

(3) An inspection shall be made to determine that the brakes on each car apply and remain applied until the release is initiated by the controlling locomotive. A car found with brakes that fail to apply or remain applied may be retested and remain in the train if the retest is conducted as prescribed in § 232.505(b)(4); otherwise, the defective equipment may be only moved pursuant to the provisions contained in § 232.15, if applicable.

B. Background

New South Yard is located approximately ¼ mile south of Old South Yard in Houston, Texas on a secondary main track segment from New South Yard to Alvin, Texas. Both Yards are approximately one (1) mile in length. The two Yards are separated by a ¼ mile stretch of main track ("Main Track"). Train speed in both Yards is 10 mph. Maximum train speed on the Main Track is 20 mph, but trains operating between the two Yards operate at 10 mph. The grade of the Main Track is level, sight distance is unobstructed and there are no at-grade road crossings or grade separations on the Main Track.

49 C.F.R. § 232.5 defines a "transfer train" as a "train that travels between a point of origin and a point of final destination not exceeding 20 miles. Such trains may pick up or deliver freight equipment while en route to destination." Since transfer trains are engaged in train movements, federal regulations require a train air brake test. On the other hand, trains engaged in "switching service"[1] do not require a train air brake test.

[1] Switching services is defined as "the classification of freight cars according to commodity or destination; assembling of cars for train movements; charging the position of cars for purposes of loading, unloading, or weighing; placing of locomotive and cars for repair or storage; or moving of rail equipment in connection with work service that does not constitute a train movement." 49 C.F.R. § 232.5.

The preamble to the Power Brake Regulations, published in the Federal Register, explains the reason for this difference:

> The definitions of "transfer train" and "switching service" are somewhat interrelated since the determination as to whether, at a minimum, a transfer train brake test is required is based on whether the movement is a switching movement or a train movement. . . . FRA's general rule of thumb as to whether a trip constitutes a "train movement" requires five or more cars coupled together that are hauled a distance *of at least one mile* without a stop to set off or pick up a car and not moving for the purpose of assembling or disassembling a train. However, FRA may consider movements of less than one mile "train movements" if various circumstances exist. In determining whether a particular movement constitutes a "train movement," FRA conducts a multi-factor analysis based upon the discussions contained in various court decisions on the subject. *See e.g.* *United States* v. *Seaboard Air Line R. R. Co.*, 361 U.S. 78 (1959); *Louisville & Jeffersonville Bridge Co.* v. *United States*, 249 U.S. 543 (1919).
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> The following factors are taken into consideration by FRA: The purpose of the movement; the distance traveled without a stop to set out or pick up cars; the number of cars hauled; and the hazards associated with the particular route traveled (*e.g.*, the existence of public or private crossings with or without crossing protection, the steepness of the grade, the existence of curves, any other conditions that minimize the locomotive engineer's sight distance, and any other conditions that may create a greater need for power brakes during the movement). The existence of any of these hazards would tend to weigh towards the finding of a "train movement," since these are the types of hazards against which the power brake provisions of the Federal rail safety laws were designed to give protection. 66 FR 4148 (2001).

Based on the above factors, the movement of rail cars ¼ mile between Old South Yard and New South Yard should not constitute a "train movement" requiring an air brake test. First, the distance between the two Yards is approximately ¼ mile. Second, there are no particular hazards associated with this ¼ mile of track. The Main Track has a level grade, has no curves, and has a clear sight distance in both directions. Third, there are no public or private road crossings across the Main Track. Fourth, rail car movements between the two yard segments normally operate at 10 mph on the Main Track. Thus, an analysis of the above factors clearly demonstrates that rail car movements of ¼ mile between Old South Yard and New South Yard are more akin to a switching movement and should not constitute transfer train movements under the regulations. Therefore, these trains should not require a train air brake test pursuant to 49 C.F.R. § 232.215(a).

In addition, due to the small size of each yard (each yard is approximately 1 mile long), switching operations frequently use the Main Track for "head room" while switching operations are carried out within each yard. Since the foregoing intra-yard switching is clearly a "switch movement," no air test is required even though the cars are present on the Main Track. Similarly, rail cars moving this short distance between the Yards, where no additional risk factors are present as stated above, should not be subject to an unnecessary train air brake test. BNSF has been operating between Old South Yard and New South Yard since 1998 with only one minor derailment as noted below. Prior to BNSF operations in this area, Houston Belt and Terminal Railroad operated between the Yards with no known derailments or other incidents.

Lastly, during yard operations, braking in order to stop a train movement in case of an emergency is normally accomplished with the use of the locomotive's independent brakes. In the Yards, a locomotive's independent brakes are sufficient to accomplish stops since these are locations where trains are operating on level grade with minimal tonnage. Likewise, on the Main Track in this short movement the independent brakes are also sufficient to stop the rail cars movement since the switch movements are

operating at speeds of 10 mph or less on level grade and with minimal tonnage. If automatic brakes were operative during these movements, the differential in stopping distance for a given movement would be negligible due to the fact that engineers are always operating on the Main Track at 10 mph and are prepared to stop within ½ their range of vision.

C. The Relief Sought

It is clear that the intent of the aforementioned provisions of the Power Brake Regulations were to ensure the safe functioning of short train movements of less than 20 miles between a point of origin and a point of final destination. Trains engaged in switch service were carved out from the requirements of air testing. Although FRA has generally not considered trains moving less than one mile to be transfer trains, a multi-factor analysis has been used by FRA to determine if a given train is a transfer train movement, necessitating an air test, or a train engaged in switching service, not necessitating an air test. Based on FRA's multi-factor analysis, the ¼ mile movements between Old South Yard and New South Yard should not be considered transfer train movements and therefore should not be subject to a train air brake test requirement.

D. Costs and Benefits

In analyzing the safety risks and benefits, BNSF believes that there are no adverse consequences or costs that will accrue from granting this petition. BNSF has been operating within and between the Yards since 1998. Since that time, there has been only one (1) derailment (non-reportable) on September 9, 2001, involving transfer of rail car movements on the Main Track. In addition, FRA has expressed concern with respect to the presence of a nearby bayou. This bayou parallels a public four lane highway. The Main Track passes over both the bayou and the highway via a 180' railroad bridge. As aforementioned, there has been only one (1) derailment in the past four years involving rail car transfer operations on the Main Track at this location[2], however, this derailment did not occur on the railroad bridge which passes over the bayou. It would extremely unlikely for a derailment to occur on this bridge or on other portions of the Main Track due to the slow operating speed (10 mph), the level grade, and presence of guardrails on the bridge. There are no anticipated costs to the private sector, to consumer, or federal, state, and local governments as a result of FRA granting this waiver. However, granting this waiver will support BNSF's efforts to more efficiently handle switching operations in this yard area, thus resulting in an added benefit of facilitating movement of BNSF cars in the already congested Houston rail terminal area.

E. Conclusion

For the foregoing reasons, BNSF respectfully requests that FRA grant its petition for a waiver from 49 C.F.R. § 232.215(a) and permit BNSF to move trains on the ¼ Main Track between Old South Yard and New South Yard in Houston, Texas without requiring a transfer train air brake test.

[2] The cause of this derailment was a power switch failure, wholly unrelated to the method of braking used to control train or rail car movements.

APPENDIX A

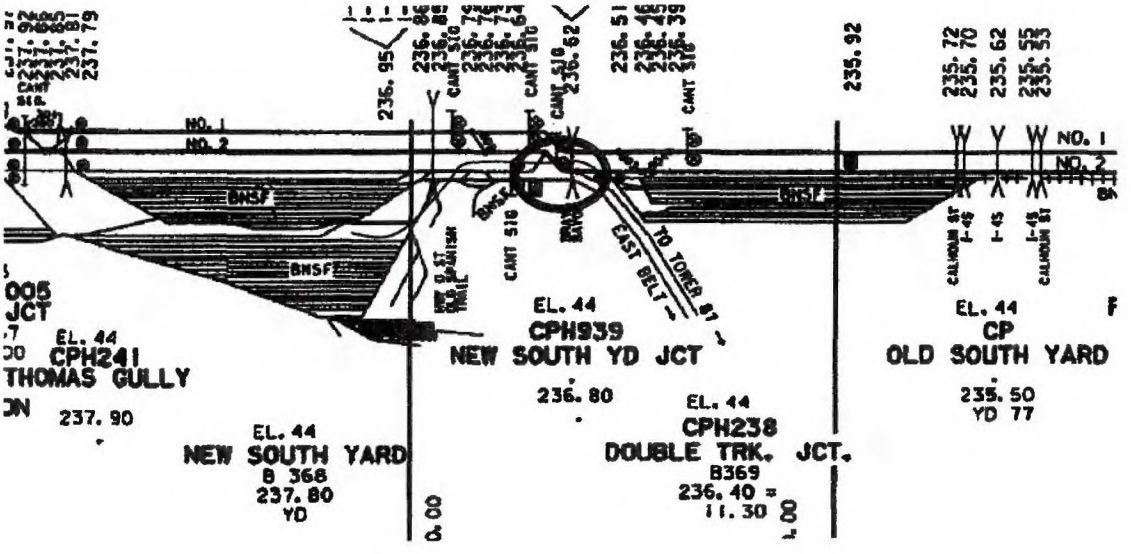
Description of movement - Houston, Texas

New South Yard is located approximately ¼ mile south of Old South Yard in Houston, Texas, along the secondary main track which extends from South Yard to Alvin. The method of operation for trains moving on main track is CTC. Both Yards are approximately one (1) mile in length. The two Yards are separated by less than ¼ mile of main track. Train speed in both Yards is limited to 10 mph by Timetable Special Instructions. Maximum train speed on the main track is 20 mph, but trains operating between the two Yards operate at 10 mph. The grade of the main track is level, sight distance is unobstructed for at least one mile in either direction and there are no at-grade highway railroad grade crossings or grade separations on the main track at this location.

Inbound trains and local industrial switcher cuts of cars are yarded in New South Yard where they receive inbound mechanical inspections and the brakes are normally bled off so that some switching operations are conducted. In order to fully switch out, classify and assemble the inbound cars for further movement in outbound trains or local industrial delivery cuts, the cars are moved to Old South Yard where the final switching operations are conducted.

The switching moves primarily in question involve switch engines pulling cars to and from "New South Yard" and the "Old South Yard", with cuts of cars of mixed freight usually not exceeding 3,400 ft and averaging 2500 tons. These movements typically come off of the "A" lead in New South Yard through crossovers located at MP **236.76**, utilizing the signal located at MP 236.64 governing movements onto Main Track 2, then leave Main Track 2 to enter Old South Yard at the main track switch located at MP **236.55, a distance less than ¼ of a mile.**

Actual time spent on the main track is between 6 and 12 minutes, depending on the length of the cut of cars. The total time involved in entering, moving through and exiting the main track can easily be accomplished in 20 minutes. There is one assignment per shift that makes this movement each way. This makes a total of six one-way movements per day.



Line-of-sight at this location is unobstructed in either direction on the main track in excess of one mile. Based on this information, stopping distance calculations were performed which considered grade,

minimum and maximum tonnages with a minimum locomotive consist for this movement. This was done to determine if locomotive brakes alone were sufficient to control or stop this movement within this range of vision. Results indicate the switching moves could be stopped in a range of 375 ft with approximately 2600 tons just using the locomotive independent brakes on a two unit switch engine consist. BNSF does not believe adding train line air brakes on a portion of the cars would significantly reduce stopping distances or materially improve operational safety.

To further address concerns over the integrity of the bayou in this area, BNSF's Engineering Department was consulted to determine what plan was in place should the highly unlikely event of a spillage occur. BNSF maintains a System Response Plan to direct its actions in mitigating routinely encountered incidents. This includes both internal and external notification charts to ensure timely response and notifications. Pre-qualified contractors are utilized to assist BNSF personnel, including BNSF emergency responders, to bring effectively remediate such incidents.

Since BNSF was advised a transfer train air brake test is required for these movements, each time rail cars are moved from one segment of the rail yard to another, the train air brake system must coupled, charged and tested. When the move is completed, then the train air brake system is depleted and each car air brake must be bled off before additional switching can be performed. This contributes significantly to operational delays and exacerbates already significant railroad congestion problems in the Houston Terminals area.

372506 FRA-2004-19949-5 APPENDIX B

U.S. Department
of Transportation

**Federal Railroad
Administration**

1120 Vermont Ave., N.W.
Washington, D.C. 20590

OCT 2 0 2005

Mr. John M. Quilty
Assistant Vice President - Operating Practices
BNSF Railway Company
2600 Lou Menk Drive
Fort Worth, Texas 76131

Dear Mr. Quilty:

Re: Docket Number FRA-2004-19949

This is in reference to the petition submitted by the BNSF Railway Company (BNSF) seeking a waiver of compliance from certain provisions of 49 Code of Federal Regulations (CFR) part 232, *Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment*. Specifically, the petition sought relief from the requirements of § 232.215 - Transfer Train Brake Tests, for train movements between Old South Yard and New South Yard in Houston, Texas.

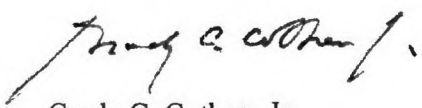
After a review of the particulars at this location, the Federal Railroad Administration (FRA) has determined that the movement of cars between the Old South Yard and the New South Yard constitutes a train movement, thereby requiring an air brake test under 49 CFR part 232. The determination as to whether a particular movement is a train movement is a multi-factor analysis based upon various court decisions dealing with the subject. See 66 FR 4148-49 (January 17, 2001). FRA believes that the following factors necessitate a determination that these movements involve conditions that create a need for power brakes during the movements: the movements between these yards (from starting point to ending point) exceed one mile in distance, the movements involve a substantial number of cars, many of which contain hazardous materials, the movements utilize a main line track with heavy traffic, the movements traverse both a navigable waterway and a major State highway, and the movements occur within ¼-mile of a major residential area and the University of Houston. As FRA believes these movements constitute train movements, FRA's Safety Board considered the specific merits of BNSF's request for waiver of the provisions contained in 49 CFR part 232. Based on its review of the petition, the Safety Board is denying the petition without prejudice.

Local FRA inspectors insist that they have always required the performance of an air brake test for these train movements and that a transfer train brake test would be the most likely test to be expected. FRA's investigation of this matter also revealed that the main line that separates the two yards is owned and operated by the Union Pacific Railroad Company (UP), with BNSF having shared trackage rights. The main line over which a portion of these train movements occur is heavily traveled. Local UP representatives estimate that there is an average of one train

every 20 to 30 minutes traversing the main line. Furthermore, UP officials state that they believe transfer train brake tests are required on the involved trains and were being performed by BNSF prior to engaging in these movements. As UP is the owner of the involved main track and operates a significant number of trains over the trackage, the Safety Board is reluctant to grant the requested waiver without UP's support for such an action. Moreover, BNSF's petition did not provide any conditions or alternate procedures that the railroad would be willing to put into place in lieu of performing the required brake test to ensure that an equivalent level of safety is maintained. In similar petitions considered by the Safety Board, the petitioning railroad has indicated a willingness to connect the brake pipe on a high percentage of the cars involved in the movement and have instituted various operating procedures to ensure the safety of such movements. Therefore, the Board finds that BNSF's petition as currently presented does not ensure that an equivalent level of safety would be achieved by granting the waiver. Consequently, the Board is denying the requested waiver without prejudice. The railroad is free to resubmit the request if it addresses the safety and operational concerns noted above.

In any future correspondence regarding this waiver, please refer to Docket Number FRA-2005-19949.

Sincerely,



Grady C. Cothen, Jr.
Deputy Associate Administrator
for Safety Standards and Program Development