

Brotherhood of Maintenance of Way Employes Division of the International Brotherhood of Teamsters

Freddie N. Simpson President Perry K. Geller, Sr. *Secretary-Treasurer*

December 17, 2015

Mr. Richard Hipskind, Investigator in Charge National Transportation Safety Board 490 L'Enfant Plaza East, S.W. Washington, DC 20594

RE: Proposed Findings, Proposed Probable Cause, and Proposed Safety Recommendations in the matter of the May 25, 2015 fatality to a maintenance of way employee on the BNSF's Midway Subdivision in Minneapolis, MN near Minneapolis Junction; NTSB Accident No. DCA-15-FR-011.

Dear Mr. Hipskind:

The Brotherhood of Maintenance of Way Employes Division of the International Brotherhood of Teamsters (BMWED) has been granted party status by the Board in the above-referenced investigation. BMWED respectfully submits these Proposed Findings, Proposed Probable Cause and Proposed Safety Recommendations to the Board for consideration.

Accident Synopsis

On May 25, 2015, at 11:39 a.m. central daylight time (CDT)₁, a BNSF engineering department foreman suffered fatal injuries while working with a maintenance of way (MOW) gang that had just begun to unload track panels² from flat cars. One of the track panels being unloaded struck a two unit locomotive consist passing on the adjacent main track. The foreman was leading a five person MOW work gang that included the foreman, a welder, two heavy machine operators, and a section laborer. The accident occurred at approximately milepost 9.7 on the BNSF Midway Subdivision in

1 All times in this report are central daylight time.

² A track panel consists of two rails affixed to timber crossties with a box anchor patter affixed to the base of the rails and rail joint bars attached at one rail end. The overall length of a track panel is approximately 42 feet.

Minneapolis, Minnesota. The passing locomotives were westbound at 13 mph travelling on the BNSF Midway subdivision main track. At the time of the accident, the weather was 63 degrees F, with winds of 17 mph.

Circumstances prior to the accident

On May 19th or 20th a construction roadmaster had asked for volunteers to perform work for the upcoming weekend. Four employees responded that they were willing to work over the weekend. The foreman (the deceased) later in the week decided that he too was willing to work the weekend to accomplish a list of tasks. According to the Construction Gang Roadmaster (CGR), he stated that he discussed with the foreman a list of tasks, but told the foremen not to work holiday, May 25th. However, according to the interviews, the gang was unexpectedly asked to assist a signal crew on Sunday, May 24, 2015, moving a large pile of dirt. According to the roadmaster, they "spent a lot of time doing that." (Wonola Interview, 5-28-15, page 23). The roadmaster confirmed this work "wasn't on my list" but also stated that the "nature of our job is things come up and we adapt to them." (Ibid) Testimony from gang witnesses also indicated they worked Monday because it rained hard on Sunday, May 24, 2015, so they only worked a few hours on Sunday and still had tasks to complete.

The foreman and the four volunteers worked on Saturday and Sunday performing various engineering or construction tasks. On Memorial Day (May 25, 2015), according to employees who worked that day, the same five employees met at their lodging where the foreman conducted a job briefing. Four of the employees stated that the briefing included a discussion about both the work of switch panel construction and the task of unloading the track panels located on flat cars stored on Old Main 2 Pocket track (a.k.a. Steam track). According to the interviewees, it was determined that no protection was needed at the switch assembly location because the work was off track and not near any tracks. However, where the crew was going to work at the track panel unloading location, the foreman indicated that they would lock out the entrance locations on the Old Main track for their on-track safety protection. It was the determination of the foreman and the gang during the briefing and out at the job site that no other form of protection was required pursuant to BNSF rules. Post-accident, the surviving gang members stated numerous times throughout their interviews that it was their understanding of the rules that adjacent track protection was not required for the panel unloading work. There were

also numerous references to the BNSF's so-called "four foot" rule as governing why protection was not necessary or required on the adjacent track.

The Accident

Upon arriving at the Old Main 2 Pocket track, the foreman and a welder placed an MOW3 lock on the fixed derail at the switch east of the flat cars and placed a MOW lock on the west switch stand to make the Pocket Track inaccessible to trains and other movements as required under the Roadway Worker Protection regulations. After the pocket track was protected through the provisions of "Inaccessible Track"⁴ the foreman instructed the employees to remove the chains and securements holding the track panels to the flat cars. This work included climbing on top of the track panel stacks and working on the adjacent track side near a controlled track, the Midway Subdivision single main track. Track centers between the Pocket Track and the main track were approximately 13-6.

After the securement chains had been removed, a machine operator of one of the front end loaders (equipped with forks), proceeded to approach the furthest east track panel stack on the east end of the east flat car. Meanwhile the foreman remained on top of the west end track panel stack of the west flat car (opposite end to where the loader was to begin his lift). During interviews, both machine operators confirmed that they never unloaded track panels before from flat cars using a front end loader with forks. "I haven't unloaded off a car." (Phil Woltemath interview, 5/27/15, page 18) "I have never offloaded railcars with a loader prior to this. I've used excavators. So when I pulled my loader up to the first stack, I thought it would be really difficult to pick up that first panel by itself." (David Johnson interview, 5/27/15, page 10)

In his interview, the machine operator stated that he did not know that the foreman was positioned on top of the panels. Just prior to the machine operator attempting the lift, the foreman tapped the top of his hard hat to signal to a second machine operator located at the west flat car that a train was approaching—a term typically used in the railroad industry for this signal is "hot rail." The second machine

³ MOW lock is a Maintenance of Way lock that can only be removed by the maintenance of way employee who installed the lock, or removed only as directed by the maintenance of way employee under whose authority the MOW lock was installed.

⁴ Working limits on non-controlled track shall be established by rendering the track within working limits physically inaccessible to trains at each possible point of entry. See 49 CFR, §214.327.

operator called the other machine operator to inform him of the train approaching; however, the machine operator already began situating the forks of his front-end loader under the two track panels from the far east end of the track panel stacks. "So, I lifted my forks, and I had to kind of lean down and look to get a good eye because the forks are right in front of you and your really can't see to get them underneath the rail. So I slid—I got my forks centered in the panels, and I slid it under the second one down. And I started to raise the forks to see if I had both forks under both rails, to see if I got a good bite on the panels. I didn't so I readjusted. Approximately at that time, Phil called me on the radio and said, "hot rail." (David Johnson interview, 5/27/15, page 10) "And what I believe happened is the way those forks are set, the length of the forks, to get them underneath both rails, the ties have to go underneath the back plate of the forks to get it all the way forward and that's - I believe that's what I did. And I believe it bumped the other panel, the top panel, enough to slide and it – almost at that exact time, two light cars, two light engines, came from the east heading west. And they caught the corner—I don't believe it was the first engine." (David Johnson interview, 5/27/15, page 11)

The ensuing 'domino effect' resulting from the first track panel contacting the locomotive, sent that track panel into other unsecured track panels and those track panels into other unsecured track panels. As the motion of track panel dislodging from the flat cars continued in a very rapid sequence, the foreman went to the ground near the west end of the west flat car. An eye witness to this sequence stated that upon landing on the ground the foreman appeared to be hurt, but in a matter of seconds, a track panel struck him at his location. Before anyone could react to aid the foreman, another track panel fell on top of the previous one with the foreman still under the first fallen track panel.

Proposed Findings

I. The MOW employees were qualified and authorized to work on May 25, 2015.

- The five (5) maintenance of way (MOW) employees involved in this tragic accident were members of BNSF Construction Gang CG08. These five members volunteered to work "the weekend," inclusive of the holiday on May 25, 2015.
- The five (5) maintenance of way (MOW) employees were qualified to perform all the assigned tasks. They each possessed the rules and safety qualifications required by BNSF for their respective positions.

- The five (5) person MOW gang consisted of a foreman (the deceased), two Class II Machine Operators (i.e., heavy equipment operators), a welder, and a section laborer.
- The weekend work (May 23-25, 2015) by the five (5) person gang was conducted under the authority and supervision of the foreman, Tyrell Anderson. The foreman had a list of "tasks to do" initially developed in consultation with his roadmaster prior to the weekend. The foreman was well known to his roadmaster and other supervisors as a "go to" guy, with supervision having full confidence in his abilities as a foreman and his knowledge of the railroad. "He knows how to railroad..., he knows what needs to be get done on the job..., so he does take an initiative on a lot of things." (Wonola Interview, 5/28/15, page 29). When Roadmaster Wonola was asked in the interview, "You would have been pleasantly surprised because more work would have got done but you wouldn't necessarily have been surprised with him that he had done that [unload panels], right? Roadmaster Wonola replied, "Yeah, it would be more like, good job because somebody does a good job, you tell them good job, you know." (Ibid)
- The gang was confronted with an unexpected task related to moving a large pile of dirt for the signal department on Sunday, May 24. Additionally, heavy rain on May 24th resulted in the gang not working a full shift on Sunday. As a result, Foreman Anderson took the initiative to work the crew on Monday to finish the work he believed would be necessary and helpful to facilitate production by the full CG08 gang the coming work week.

II. The MOW employees participated in a briefing the morning of May 25, 2015.

• In his capacity as foreman, Tyrell Anderson was the designated Employee-in-Charge to provide on-track safety for the gang in accordance with 49 CFR part 214, subpart C. A briefing was conducted at the hotel on the morning of May 25, 2015. "So we had our briefing in the lobby, 15, 20 minutes." (David Johnson interview, 5/27/15, page 7) "So when there's a smaller group of people, there's less that has to be discussed, there's less tasks, and we're all going to be together. It's not going to be, you guys are here; you guys are there. So I feel like the briefing might have been short and sweet, but the information was there." (Phil Woltemath interview, 5/27/15, page 43)

- The briefing included discussions on the two remaining tasks to be accomplished: (1) completion of a switch panel; and, (2) unload track panels off of flat cars on the Pocket Track located at approximately milepost 9.7 on the BNSF Midway Subdivision in Minneapolis, Minnesota.
- It was discussed and determined during the briefing that no on-track safety protection would be required for the work on the switch panel because the panel was located in a yard area far away from any live tracks.
- It was discussed and determined during the briefing that the only on-track safety required for the panel unloading was to make the Pocket Track inaccessible by the application of MOW locks to derails and/or switches governing access to the Pocket Track at each point of entry. Adjacent controlled track protection was discussed but it was deemed unnecessary because "as long as we didn't foul within 4 foot of that, we shouldn't need any coverage on that." (Roe Morgan interview, 5/27/2015 page 7).
- Upon arrival at the Pocket Track and pursuant to the briefing, the gang waited in the clear for the foreman to make the Pocket Track "inaccessible" to trains and other on-track equipment through the application of MOW locks on a derail and a switch governing access to the flat cars on each end the Pocket Track.

III. The gang employees universally believed they were in full compliance with the BNSF rules governing Adjacent Track and Adjacent Controlled Track Protection.

- There was a universal (mis)understanding among the four surviving employees regarding the so-called 4-foot rule. "Me and Dave had actually talked about it at the panel site when we were unchaining them. We had talked about it again, if we needed it or not. We were looking, and we said, well, we have more than 4 foot here." (Phil Woltemath interview, 5/27/15, page 33)
- "We were under the impression, you know, we would be 4 foot from that. We'd be out of 4 foot of that track, so we went with that." (Jesse Banks interview, 5/27/15, page 26).
- "Phil and I had discussed the other main track, and from what I know of the rule of adjacent tracks, we were not on-track equipment and we were not going to foul

- any other mains." "Phil and I had discussed that that main track was more than 4 feet away. We were not within 4 foot of fouling that track." (David Johnson interview, 5/27/15, page 28).
- "And the adjacent track, as long as we didn't foul within 4 foot of that, we shouldn't need any coverage on that. So we just considered ourselves covered with the derails on the yard track which the cars were on." (Roe Morgan interview, 5/27/2015 page 7).
- "We believed that under the adjacent track rule we did not need protection on the main line because we had no intent to foul." (Philip Woltemath interview, 5/27/15, page 14).

IV. BNSF Rule changes/revisions caused widespread confusion among both MOW employees and BNSF managers.

- Sometime during 2009, via General Order #47, BNSF revised the Maintenance of Way Operating Rules (MWOR) defining "Fouling the Track" by removing the words "or assuming a position from which he or she could potentially foul a track while performing his or her duties." (Emphasis added) With this rule change, BNSF removed "potential to foul" from the RWP lexicon. Removal of the reference to "potentially foul a track" from the BNSF's definition significantly contributed to the widespread but mistaken belief that as long as roadway workers remain 4 feet from the track, they do not need protection, i.e., the so-called and often referenced "4 foot rule." (See BNSF training slide identified as Exhibit A) This widespread misunderstanding on the application of the BNSF rules was further exacerbated by BNSF's inadequate roll-out, training, and corporate focus on the new FRA regulations governing adjacent controlled track protection.
- "We felt that we didn't fall under the adjacent track because we're off-road equipment and we were more than 4 feet away so we weren't fouling the track." (Phil Woltemath interview, 5/27/15, page 44) "My concern would fall with the adjacent track rule. I believe that it is a little cloudy. I think across the board, all the employees, I think it's a little hard to understand. I mean, I know the carrier and the FRA are working to make it clear, but there's still a lot of questions on this." (Phil Woltemath interview, 5/27/15, page 61) "I mean, that -- there's just there's a lot of murkiness in the way we as employees read that adjacent track."

And that's something going forward that I think would help everybody. Not just in this case, but further down the road." (Phil Woltemath interview, 5/27/15, page 62)

- "That adjacent track rules is—it needs to be more defined, I believe." I've heard other people that they're not sure of what the exact rule means, because they have changed it." (David Johnson interview, 5/27/15, page 37). "Well, then after I think it was the end of the year last year, I went back—after I got off the construction gang, I went back to work in Kansas City, and there was another situation where I thought there was a potential to foul. But my foreman told me that they changed that, that no longer is the and that only applies to on-track equipment. So we looked up the rule and he was right. It no longer states the potential to foul, and I don't know if I think a lot of people need to be retrained on that rule again. To make it understandable. You hear people talk about it and they're not too sure about it." (David Johnson interview, 5/27/15, pages 37-38)
- Post-accident, BNSF managers recognized the confusion regarding the application of adjacent track protection. "I would tell you that from discussions I've been having with my people, that that is going to be a large effort of mine for the coming weeks, is some additional clarification on things that maybe didn't get touched on during our initial wave of training. So when we initially rolled this out, it was last summer, and we have touched on it as we've gone, but I can tell you from my experience, I have never asked or talked to somebody about the scenario of material unloading with adjacent tracks. typically referred to it as you are working on this track and, you know, what scenario would require protection of the adjacent." (Matthew Keller, interview, pages 31-32.) "We feel that there is some extra clarification needed around things just because from this event, we've been doing a lot of discussion with our teams and questions have bubbled up that didn't bubble up before." (Matthew Keller, interview, page 32) "So we had -- I think -- I would say from some of my supervisors, there was some assumed understanding that through this training document, we realize we've got some clarification to do." (Matthew Keller, interview, page 33)

V. BNSF removed or omitted three (3) key FRA regulatory terms from its on-track safety program, rules and training documents.

• BNSF removed or omitted three key regulatory terms (1) "proximity to a track," (2) "potential to foul," and (3) "or coupled equipment" from its on-track safety program, rules, and training documents.

(1) Proximity to a track:

- FRA's definition of fouling a track has remained unchanged since promulgation of the Roadway Worker Protection regulations in 1997. The FRA definition is and remains as follows: "Fouling a track means the placement of an individual or an item of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the field side of the near running rail." (see 49 CFR §214.7, Definitions). (Emphasis added)
- BNFS's definition of Foul of Track in effect at the time of the accident was published in the BNSF MWOR [In effect December 2, 2009 (including revisions through July 1, 2014)]. The definition in the glossary on page GL-3 of the BNSF MWOR (Exhibit B) reads "Foul of Track: Within four feet of the nearest rail of a track."
- After the tragic accident of May 25, 2015, the BNSF published a "Rule Change Briefing" dated June 25, 2015 (Exhibit C). Effective July 1, 2015 the BNSF definition was appropriately revised to read: "Fouling Track The placement of an individual or an item of equipment, including material being handled by equipment, in such proximity to a track that the individual, equipment or material handled by equipment could be struck by a moving training or ontrack equipment, or in any case is within four feet of the nearest rail." (Emphasis Added)
- The so-called and often referenced "4-foot rule" is really not a rule at all. It is simply part of the broader FRA regulatory definition of fouling a track. The FRA included the phrase "proximity to a track" in the definition of fouling because that phrase is instructive and has meaning. Fouling the track was never intended to be a "yard stick" measurement and BNSF erred in modifying this regulatory definition within its on-track safety program.

(2) Potential to Foul:

- FRA's definition of roadway worker has remained unchanged since promulgation of the Roadway Worker Protection regulations in 1997. The FRA definition is and remains as follows: "Roadway worker means any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway maintenance machinery on or near the track or with the potential of fouling a track, and flagmen and watchmen/lookouts as defined in this section." (Emphasis added) (see 49 CFR §214.7, Definitions)
- BNFS's definition of roadway worker in effect at the time of the accident was published in the BNSF MWOR [In effect December 2, 2009 (including revisions through July 1, 2014)]. The definition in the glossary on page GL-4 of the BNSF MWOR (Exhibit B) reads: "Roadway Worker —Employee whose duties include inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communications systems, electric traction systems, roadway facilities or roadway maintenance machinery on or near a track, and flagmen and lookouts." (see 49 CFR §214.7, Definitions) Here again, BNSF modified the well understood FRA definition of roadway worker by removing from the MWOR the instructive phrase "or with the potential of fouling the track." The consequences of BNSF's deviation from the well understood FRA regulatory definition cannot be understated.
- "I think the potential to foul was -- we were just following what the FRA said about it, to take that out. They [BNSF?] did not want to use the potential word anymore." (John Palacios, interview, 5/27/15, page 50)

(3) Coupled Equipment:

- FRA uses the instructive regulatory term "or coupled equipment" in §214.336 (a), but BNSF's guidance document (Exhibit D) excluded the term "or coupled equipment." (see Proposed Finding VI below)
- Coupled equipment, with or without power attached, presents two specific hazards recognized by the FRA regulation: (1) coupled equipment, such as a string of rail cars, obscures visibility; and (2) coupled equipment creates a

structural barrier to roadway workers if they are positioned on the side of the coupled equipment that also has an adjacent track or adjacent controlled track.

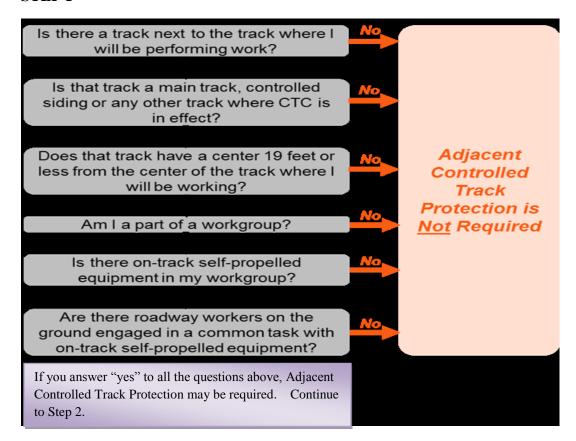
BNSF's pre-accident rule changes and associated training curriculum removed or omitted key regulatory terms including "proximity" to a track, "potential" to foul a track, and "coupled equipment." BNSF chose to eliminate or omit these well-understood terms from their rules and focus instead on "intent" to foul. These changes created widespread uncertainty and confusion among BNSF roadway workers and managers regarding the application of the rules governing adjacent track protection and adjacent controlled track protection.

VI. Roadway worker training prior to the accident was disjointed, ineffective, and widely misunderstood.

In addition to the rule revisions noted above, the delivery of roadway worker training as well as related training materials has led to widespread misunderstanding and confusion among BNSF roadway workers and managers regarding adjacent track protection and adjacent controlled track protection. By a BNSF Rule Review document dated 9/29/2014 and applicable to Adjacent Controlled Track Protection (Exhibit D), BNSF included a chart for roadway workers to "use as a general guide to assist in assessing location and work conditions to determine if adjacent controlled track is required. Ask yourself the questions in step 1. If you answer yes to all the questions, then proceed to step 2." Applying the Step 1 procedures, the gang unloading the panels at the Pocket Track could not answer YES to all 6 questions. So the gang, applying the decision logic in Step 1, reached the decision per the Adjacent Controlled Track Protection Rule Review document that adjacent controlled track protection was NOT required for the panel unloading task.

A screen shot of the Step 1 procedures in Exhibit D is included on the following page.

STEP 1



- Step 1 of the BNSF's Adjacent Controlled Track Protection Rule Review doucument (illustrated above) is misleading and incorrect because it fails to include "or coupled equipment" in the decision logic tree (Exhibit D). The correct wording would be as follows:
 - Question 5: "Is there on-track self-propelled equipment or coupled equipment in my workgroup?"
 - Question 6: "Are there roadway workers on the ground engaged in a common task with on-track self-propelled equipment or coupled equipment?"
- The Adjacent Track Regulation, 49 CFR §214.336(a) states, in pertinent part: "Except as provided in paragraph (e) of this section, on-track safety is

required for each adjacent controlled track when a roadway work group with at least one of the roadway workers on the ground is engaged in a common task with on-track, self-propelled equipment <u>or coupled equipment</u> on an occupied track." (Emphasis added)

- The 2 flat cars and several gondola cars obviously constitute "coupled equipment;" however, the BNSF guidance document failed to include the term "or coupled equipment" in the Step 1 decision tree. Had the guidance document and related training incorporated that important regulatory term into the decision tree logic, the workers unloading panels at the Pocket Track would have been able to answer YES to all six questions and would have recognized that adjacent track protection was required.
- Following publication of the January 10, 2014, amended Final Rule for Adjacent Track On-track Safety (see Federal Register, Vol. 79, No. 7, January 10, 2014), BNSF decided to utilize managers and supervisors to deliver adjacent track training in order to meet the July 1, 2014 effective date of the final rule. "BNSF's adjacent controlled track training strategy included training for all engineering supervisors in the delivery of the BNSF adjacent controlled track training document. Supervisors would then lead an on-the-ground training effectively communicating the new FRA regulation and BNSF Maintenance of Way operating rules to support the regulation." (Alex Franco interview, 7/22/15, pages 17-18). "I did mention earlier the exception that we had where we delivered some adjacent controlled track training programs via first-line supervisors." (Alex Franco interview, 7/22/15, page 68)
- Engineering supervisors are not rules trainers and they are already burdened with large territories and substantial supervisory responsibilities. The adjacent track rule was as new to front line supervisors as it was with employees. Front line supervisors did not universally possess a full understanding of the new adjacent track rule nor universally possess the necessary teaching techniques/skills to convey the complexities of the adjacent track rule to 12,500 engineering employees throughout the BNSF system. "And our training audience is roughly about 12,500 employees." (Alex Franco interview, 7/22/15, page 14).
- There was substantial confusion post-accident even among managers and supervisors regarding proper application of the rules at the accident site.

- o "I would tell you that while they were taking the chains off, if I had observed them taking the chains off, that I would not have taken exception to it because the requirement is the only time they can't be there is when a train is passing. So I would tell you that if I saw them doing that, I would have advised them that I didn't like what I was seeing but from my understanding of the rule, they were not breaking it taking the chains off." (Matthew Keller interview, 5/28/15, page 29)
- "Yes, and I would -- and I know that -- something I've been hearing thrown around a lot is the 19 feet, and the 19 feet in my opinion does not apply in this scenario. It's 25 feet because we did not have adjacent control tracks. We had adjacent tracks, and there's a different definition there for those two things." (Matthew Keller interview, 5/28/15, page 30)
- o "I didn't -- you know, the 4-foot rule and all that stuff, that's the first time I heard employees complaining about that." (John Palacios interview, 5/27/15, page 42)
- "Well, how it applied in this situation is, you know, 19 feet or whatever, you're going to need protection from a Form B or have track time on that track to do any type of work which I read into it more deeply, once it all happened, just because of rumors and everything, I read that you're not allowed to have a flagger to unload material with adjacent track. It's not sufficient. That's what I just read in the EI." (Wonola interview, 5/28/15, page 59) "I learned about it in the EI just because I opened the book and I'm like, unloading panels because that was -- I had a bunch of questions myself on it. So that's why I opened the book and read about unloading material." (Wonola interview, 5/28/15, pages 59-60)

VII. The employees were not adequately trained in hazard recognition and hazard mitigation.

 The involved employees did not conduct a hazard assessment of the panel unloading task because they were not adequately trained by BNSF in hazard recognition and hazard mitigation.

- The employees were incorrectly trained to focus on the "yard stick" measurement of 4 feet (i.e., the so-called 4 foot rule), rather than being trained to apply hazard recognition and hazard mitigation principles to the panel unloading task.
- BNSF's overreliance on their "Approaching Others" program created an overly optimistic sense among BNSF management that hazard recognition and hazard mitigation is adequately addressed in the "Approaching Others" process.

VIII. BNSF's response to the psychological and emotional impact of this "Critical Incident" on directly-affected employees was insufficient.

- "I saw Dave come up running, and I just remember him putting his hands up, and just devastation." (Phil Woltemath interview, 5/27/15, page 22)
- "And they [train crew] asked, if everybody was okay. And I said, no, everybody's not okay. And they asked do we need emergency services I'm pretty sure they asked that –and I said yes. And they went back into the locomotive and I tried calling on 36. I was in such a panic I don't even know if I hit the right buttons." (Phil Woltemath interview, 5/27/15, page 22)
- "I tried to comfort Phil a little bit. He was just sitting there freaking out, you know. I went over there and just sat with him and put my hand on his shoulder. And after that, things are sketchy. I couldn't tell you." (Jesse Banks interview, 5/27/15, page 10)
- "And I don't know, after an hour or so, we went and sat in the van. And I could still see the scene, so I had to back up just to get that out of our sight." "I know we were just all in such shock from what had happened that..., it was just running over and over in over in our heads." (Phil Woltemath interview, 5/27/15, page 25)
- "And this time it was probably about 4:00, 4:15" "I was getting phone calls from co-workers asking me for details, because the father had already heard rumors that the company, 4.5 hours later, hadn't given him the news." "And it was about this same time the company had their claims people there wanting to take statements from us. And we gave brief a statement. And I just wanted to get

out of there. I was ready to jump out of my skin, I couldn't get out of there soon enough. I didn't know why we were being held. If they wanted to take a urine sample they should have made that call hours sooner." (Phil Woltemath interview, 5/27/15,page 25)

• "We were all pretty distraught over the ordeal so we weren't really wanting to go into great detail because it was still just the shock was there. So we gave a brief statement, and we were just wanting to get out of there and go back to the hotel where we would call our families and just take a little bit of time to digest what had happened, because it was a life changing event." (Phil Woltemath interview, 5/27/15,page 26)

The accident occurred at 11:39 a.m. After experiencing the significant psychological and emotional impact of witnessing this tragic accident involving the crushing death of a co-worker and its aftermath, the surviving employees were taken to the General Office Building for post-accident drug and alcohol testing. Then they were held in order to provide written statements. After all that was complete, the employees were simply transported back to the hotel by a company manager sometime (estimated) around 5:00 or 6:00 p.m. "Back to the hotel, yes." (Interview of Roe Morgan, 5/27/15, page 10). They were not offered transportation home that evening; rather, they were instructed to be available the following morning to meet with BNSF claims agents.

Proposed Probable Cause:

BMWED proposes that the probable cause of the fatality to a maintenance of way foreman on May 25, 2015, on the BNSF Midway Subdivision in Minneapolis, MN was the absence of protection from trains on the adjacent controlled main track during the unloading of track panels on flat cars located on the Pocket Track.

On May 25, 2015, the five (5) MOW employees were acting in compliance with the BNSF MWOR as those rules were presented to the employees in training, in the MWOR, and in related guidance documents. Therefore, the absence of protection on the adjacent controlled main track was the direct result of systemic deficiencies in BNSF's training program and BNSF's conscious decision to minimize the application of adjacent track protection and adjacent controlled track protection by removing key regulatory terms from their training documents, rules, and on-track safety curriculum.

The BNSF decision to eliminate or omit key regulatory terms from their on-track safety rules, including "proximity" to a track, "potential to foul" a track, and "or coupled equipment" lead to widespread confusion on the application of the rules. The widespread confusion among MOW employees and BNSF managers concerning application of the BNSF rules governing adjacent controlled track protection was further exacerbated by the inadequate rollout of training following promulgation of FRA's final rule, published January 10, 2014 (effective date July 1, 2014), and the BNSF's failure to train employees in the application of Safety Management System principles including risk analysis, hazard recognition and hazard mitigation.

Proposed Recommendations

To BNSF:

- Retrain all roadway workers and supervisors on the proper application of rules regarding the protection of adjacent track and adjacent controlled track.
- Emphasize in training and training documents that "potential to foul" a track and "proximity" to a track are key to understanding and applying the rules related to adjacent track protection and adjacent controlled track protection.
- Emphasize in training and training documents that whenever the potential to foul a track exists, employees must establish the appropriate level of protection regardless of track center measurements by applying both the FRA minimum requirements and the principles of hazard analysis, hazard recognition, and hazard mitigation. Regulatory compliance, as well as a Safety Management Systems approach, must be supported and encouraged at all levels by BNSF.
- Revise BNSF MWOR, training documents and curriculum pertaining to adjacent controlled track to reflect the requirements of 49 CFR §214.336(a) related to "ontrack self-propelled equipment <u>or coupled equipment</u>." (Emphasis added)
- Provide all roadway workers with direct and ready access to FRA Part 214(C) regulations during training so that roadway workers can relate the BNSF MWOR to the actual regulation.

- Do not utilize front-line supervisors to deliver training on rules.
- Revise the definition of "roadway worker" in the MWOR by reinserting the phrase "**or with the potential of fouling the track**" so as to mirror the FRA definition of roadway worker (see 49 CFR 214.7), thereby clarifying the current ambiguity in the MWOR with regard to potential to foul a track.
- Reinstate the previous rule that required adjacent track protection for large-scale construction and production gangs where track centers are 25-foot or less. (see 2nd bullet under "Summary of Changes" in BNSF's Rule Change Briefing dated June 3, 2014 (Exhibit E). Reinstatement of the previous rule is intended to assure adjacent track protection for large-scale maintenance or construction activities between 19 and 25 feet from the occupied track, adjacent track areas which are not covered under the provisions of §214.336.
- Require a specific and separate re-briefing at the jobsite each time a roadway
 work group is moved to a different location or will be engaging in a new or
 different task. Such briefings should include not only on-track safety protection,
 but also a full discussion on job task, hazard recognition, and hazard mitigation.
- Distribute and discuss the FAMES₅ Committee report titled "The Importance of Effective On-Track Safety Briefings" during all roadway worker training programs. (Exhibit F)
- Limit the number of panels stacked on flat cars to 5 high to aid in safe unloading.
- Extend the length of the forks used on front-end loaders to unload track panels so that they extend at least 18 inches beyond the track panel's far rail base.
- Revise BNSF's Critical Incident Stress Plan to assure employees directly-affected by a critical incident will be transported to their homes upon request. Employees impacted by a critical incident should not be left to languish alone in a hotel room

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⁵ The Fatality Analysis of Maintenance-of-way Employees and Signalmen (FAMES) Committee is a voluntary, consensus-based committee focused on identifying risks, trends and factors impacting roadway worker safety. FAMES consists of safety representatives from a cross section of rail labor, railroad management, and federal regulators. FAMES is a continuous improvement process that relies on the candid sharing of available data and the views of its participants. To enable the process, FAMES explicitly refrains from making any findings regarding whether any past or present practice or protocol satisfies any legal duty or standard of care.

hundreds or thousands of miles from their homes and loved ones in the aftermath of a significant critical incident.

To FRA

- Increase auditing of all railroad Roadway Worker Protection training classes, curriculum, and training materials to assure they are effective in transmitting the requisite level of knowledge and understanding of the FRA regulations, terminology, and definitions.
- Prohibit railroads and railroad contractors from modifying FRA regulatory definitions related to roadway worker safety.
- Ensure that all railroad and railroad contractor on-track safety programs and training curriculum include provisions for adjacent controlled track protection related to "on-track, self-propelled equipment or coupled equipment" as required by 49 CFR §214.336. (Emphasis added)
- Issue a Safety Alert regarding details of the incident of May 25, 2015, and require
 all railroads to review their training programs and materials and assure that
 roadway workers and their supervisors have a high level of understanding
 regarding the application of rules and regulatory terms/definitions pertaining to
 adjacent tracks and adjacent controlled tracks.
- In addition to the adjacent controlled track rule (§214.336), reinstate the previously deleted text of 49 CFR §214.335 (c) that was in effect prior to the May 1, 2012, revisions to Railroad Workplace Safety; Adjacent Track On-Track Safety for Roadway Workers (see Federal Register, Vol. 76, No. 230, November 30, 2011, page 74600). Reinstatement of §214.335 (c) is intended to assure adjacent track protection for large-scale maintenance or construction activities conducted between 19 and 25 feet from the occupied track, adjacent track areas which are not covered under the provisions of §214.336.

§214.335 (c) - Roadway work groups engaged in large-scale maintenance or construction shall be provided with train approach warning in accordance with §214.329 for movements on adjacent tracks that are not included within working limits.

Require all railroads to revise their Critical Incident Stress Plans under 49 CFR
Part 272 to provide engineering employees directly involved in a critical incident
(as defined in Part 272) prompt transportation to their home (i.e., regular place of
residence) upon request, after the directly-involved employee has performed any
actions necessary for the safety of persons and contemporaneous documentation
of the incident.

These comments constitute BMWED's proposed findings, proposed probable cause, and proposed recommendations pursuant to 49 CFR §831.14(a). BMWED appreciates the opportunity to participate as a party to this investigation.

Respectfully,

Director of Safety

cc: Hearing Parties