

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of: *

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UNION PACIFIC RAILROAD ROADWAY *

WORKER FATALITY IN VAIL, *

Accident No.: RRD21LR007

ARIZONA, ON JANUARY 31, 2021 *

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Interview of: ANTHONY "TONY" BERNHARD, Manager
Union Pacific Engineering Department

JAY FARRAR, Manager
Union Pacific Engineering Department

Via telephone

APPEARANCES:

ROBERT "JOE" GORDON, Investigator in Charge
National Transportation Safety Board

MICHAEL HOEPF, Human Performance Operations Group
National Transportation Safety Board

JOHN MANUTES, Accident Investigator
National Transportation Safety Board

DAVID CARR, Operating Practices Inspector
Federal Railroad Administration

ROY MORRISON, Director of Safety
Brotherhood of Maintenance of Way Employes Division

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I N T E R V I E W

1
2 MR. GORDON: Good afternoon, my name is Joe Gordon, and I'm
3 the investigator in charge for this investigation. The interview
4 is being conducted virtually via conference call, and we are going
5 to be interviewing Jay Farrar and Tony Bernhard, who work for the
6 Union Pacific Railroad.

7 This interview is in conjunction with NTSB investigation of a
8 roadway worker fatality that occurred on January 31, 2021, near
9 Vale, Arizona. The NTSB Accident Reference Number is RRD21LR007.
10 The purpose of this investigation is to increase safety, not to
11 assign fault, blame, or liability.

12 Before we begin our interview and questions, we'll go around
13 and introduce everyone. I ask that you please spell your last
14 name, state who you're representing and your title, and please
15 speak clearly and accurately for the recording. I'll start off,
16 and then we'll -- we'll let the NTSB guys introduce themselves and
17 go around.

18 Again, my name is Joe Gordon, spelling of the last name
19 G-o-r-d-o-n, and I'm the NTSB investigator in charge for this
20 accident.

21 Mike?

22 MR. HOEPF: This is Michael Hoepf, that's H-o-e-p-f, and I am
23 the human performance operations group chairman for this accident.

24 MR. GORDON: And John.

25 MR. MANUTES: Yeah, good afternoon, this is John Manutes,

1 M-a-n-u-t-e-s. I'm a rail accident investigator with the NTSB and
2 the mechanical working group chairman.

3 MR. GORDON: All right, thank you, John.

4 And we'll go to David with the FRA.

5 MR. CARR: Good afternoon. My name's David Carr, last name
6 C-a-r-r, with the FRA, operating practices inspector.

7 MR. GORDON: All right, thank you, David.

8 And Roy Morrison, BMWED.

9 MR. MORRISON: Good afternoon, Roy Morrison, M-o-r-r-i-s-o-n,
10 director of safety, Brotherhood of Maintenance of Way.

11 MR. GORDON: Okay, thank you, Roy. And I think that's --
12 that's all the parties that are participating in the investigation
13 or in the interview today.

14 So Jay, if you could give us your -- your name and title
15 there?

16 MR. FARRAR: Yes, my name is Jay Farrar. I'm the director of
17 track programs, Union Pacific Railroad.

18 MR. GORDON: Thank you.

19 And Tony?

20 MR. BERNHARD: Tony Bernhard, B-e-r-n-h-a-r-d, director of
21 engineering safety, Union Pacific Railroad.

22 MR. GORDON: Okay, thank you, Tony.

23 And we've discussed this prior to the call, but we'll be
24 recording the interview today. Do we have your permission to
25 record, Jay?

1 MR. FARRAR: Yes, you have my permission.

2 MR. GORDON: And Tony?

3 MR. BERNHARD: Yes, sir, you have my permission.

4 MR. GORDON: Okay. And after the interview has been
5 transcribed, we'll send it out to you guys for -- and you -- you
6 can make any corrections to anything that you find that wasn't
7 transcribed properly. And eventually, this may become a part of
8 the public docket.

9 You understand that we cannot guarantee any confidentiality,
10 Jay?

11 MR. FARRAR: Yes, I understand.

12 MR. GORDON: And Tony?

13 MR. BERNHARD: Yes, I understand.

14 MR. GORDON: Okay, thank you.

15 And we also discussed the representative -- that you could
16 have a representative of your choice. My understanding, neither
17 Jay or Tony, you guys don't have a representative with you today;
18 is that correct?

19 MR. FARRAR: Yes, that's correct.

20 MR. GORDON: Okay. And Tony?

21 MR. BERNHARD: Yes.

22 MR. GORDON: Okay. All right, thanks guys.

23 INTERVIEW OF JAY FARRAR and ANTHONY "TONY" BERNHARD

24 MR. GORDON: So if you could -- if we could just start out,
25 and Jay, we'll start with you first, if you could just give us a

1 back -- a background of your railroad experience? Just kind of
2 talk to us about when you started with the Railroad and the
3 positions that you've held up to the current position that you're
4 in?

5 MR. FARRAR: Yes, sir. I started on the Union Pacific; I
6 believe it was February of 1991. I started out as a track labor
7 and worked my way -- when I say track labor, this was out on the
8 program gang, so my territory was all of the Union Pacific
9 territory. So I started out as a laborer, and then I worked my
10 way into a truck driver, and then a -- I believe a machine
11 operator. Held various machine operating positions. And a
12 assistant foreman. Foreman. And then many different seniority in
13 the foreman ranks. And then I became a (indiscernible) supervisor
14 I believe in '97 and held an (indiscernible) position from '97 to
15 2004 or '5 where I became a manager of track programs. Same
16 department and everything, just up the -- the scale a little bit.
17 I held that position until I believe late 2014, and I've been a
18 director of track programs from 2014 to -- to present.

19 MR. GORDON: Okay, thank you, Jay.

20 And Tony, if you could give us the same type rundown?

21 MR. BERNHARD: Yeah. Hired with Union Pacific in June of
22 2004. I went through a management training program until November
23 1, 2005 where I became a manager of track maintenance, or industry
24 what is known as a roadmaster. Was a manager of track maintenance
25 in Lusk, Wyoming, Dallas, Texas and Waco, Texas from November 1,

1 2005 through about October 1st of 2008. I was promoted to manager
2 of track projects, Portland, Oregon from that date until May 1st
3 of 2010. And May 1st, 2010 I was promoted to the director of
4 track maintenance or division engineer for Northwest Division.
5 And then was also a division engineer in Fort Worth, Texas through
6 2017. And I've been in my current position since May 1st of 2017.

7 MR. GORDON: Okay, thank you, Tony.

8 And as you guys know from our discussions, you know, setting
9 this interview up, the purpose of the call today is just to get a
10 better understanding of the -- of the work practices around these
11 big production gangs, and -- and just to understand more of kind
12 of the training that the employees receive and the oversight.

13 So Mike, if you would like to start with the topic areas that
14 we need for the Operational Group, and you know, then we can -- we
15 pass it around to the other parties. Mike Hoepf.

16 MR. HOEPF: Yeah, sounds good. This is Mike Hoepf. Thank
17 you, Joe.

18 So, you know, what I -- what I would kind of like to do for
19 this interview is, usually we do a couple of rounds, but I think
20 maybe just kind of going by topic, and so I would like to start
21 off with some just discussion of the operational rules and then
22 I'll -- I'll pass it around and then, you know, we'll move on to
23 the next topic from there. Although, it will all be kind of about
24 the rules today.

25 So the first thing just wanted to talk about, there's kind of

1 a section of rules, 136.7, and then there's a, you know, 3, 4, 5,
2 which a lot of those are kind of related. 136.7.4 is safe working
3 distance between machines, which is think is the most applicable
4 rule, so I just kind of wanted to just generally, just start off
5 with kind of a general discussion of those rules, and just make
6 sure I'm understanding those correctly.

7 Can -- can Jay or Tony, if you could just -- if one of you
8 guys could just take the lead and just kind of walk me through
9 what -- what that rule entails, I'd appreciate it.

10 MR. BERNHARD: Yeah, so 136.7.4, when we talk about a safe
11 working distance between machines, so what this rule says is
12 unless different distances is specified in the job briefing. So
13 our work groups have, you know, job briefings at the beginning of
14 their shift and they have continued rolling job briefings, is what
15 they call it, as conditions change. That they're going to keep at
16 least 50 feet distance between each of the roadway machines while
17 working.

18 And it goes on to say equipment is considered to be working
19 when equipment is not prepared for travel as required by the
20 operator's manual. So there's a specific series of operations
21 that are different between a working machine and a traveling
22 machine. So the -- and then, also, the speed and work mode must
23 not exceed 10 mph. So it's going on to say that you can't be
24 working at a speed of greater that 10 mph, you know, again while
25 in that work mode.

1 And then we have one note, since we have snow service
2 equipment and it requires working with a couple of our -- when we
3 spell it out, our cranes or pipe valves, regulators, not to exceed
4 25 miles per hour while removing snow, and the idea with that is,
5 is that they would -- they literally aren't able to remove snow
6 if -- in some instances unless they get, you know, like a running
7 start to -- to remove some of the snow in areas that we have.

8 MR. GORDON: Okay, great. That's -- that's very helpful.

9 Okay, so if you could -- and just to the extent that you
10 gentlemen are, you know, able to comment on, and if not that's --
11 that's perfectly okay. So there's also 136.7.5, safety traveling
12 -- traveling distance between machines. Do you think you could
13 just kind of compare and contrast how that applies versus the
14 working distance between machines?

15 MR. BERNHARD: Yeah, so this is Tony again. So the 136.7.4,
16 is really specifically talking about when the machines are -- are
17 what we call working; when they're actually involved in the work
18 activities, whether it's spiking a tie, tamping track, regulating
19 ballast, inserting ties. And then we also have traveling, so we
20 distinguish between the two of them because they're two totally
21 separate, I'll call them "operations."

22 So 136.7.5 talks about the procedures and the expectations
23 around traveling equipment. So it talks about keeping at least
24 300 feet between on-track equipment, trains or engines, while
25 traveling. Then we reference Rule 42.8 when we talk about

1 following cars or trains. We talk again about equipment that's
2 considered to be traveling when equipment is prepared for travel
3 as required by the operator's manual, so again, and this gives a
4 little bit more color with traveling.

5 You know, example, work heads are pinned up and equipment is
6 in travel mode. So a lot of the machines have what is called
7 "travel mode," so it -- it allows them to move at -- at a quicker
8 speed, and a lot of times the -- the RPMs on the engine are
9 different. So then it talks about -- it's equipped with -- it's
10 equipped -- we talked about the travel model that's equipped.

11 Hi-rail inspection vehicles, rail detector cars, track
12 evaluation cars, and spray trucks are considered to be in travel
13 mode while they're inspecting, testing, and spraying, so those are
14 a little bit different. They're all kind of in that roadway
15 maintenance machine type of bucket, but these are -- it's just
16 spelling out kind of these specifically what we're talking about,
17 what it defines what is considered to be working for those
18 three -- three or four different types of vehicles.

19 And then it goes on to talk about maintenance labor, maximum
20 speed, so we have for different types of equipment we have
21 different types of maximum speeds, and it all kind of is a
22 function of -- you know, we -- we set our maximum speeds with some
23 of our equipment and it's really a function of being able to stop,
24 you know what the intended purpose of those machines are. And so
25 we -- we set maximum speeds for, again for various types of

1 equipment.

2 And -- and then it talks about what we call "bunching up,"
3 and if Jay wants to add to this, but we -- we typically have our
4 machines what we call "bunching up" when they're making high risk
5 move across highway grade crossings or rail crossings. And I say
6 "high risk" moves just because a lot of times we have -- as much
7 as we want to control the risk when we're traveling, and -- and
8 working where we have -- we specify working distance and traveling
9 distance, we understand we have -- at road crossings we have very
10 little control of what the general public will do when it comes to
11 adherence of the -- the vehicular laws, such as yielding at
12 railroad crossings, not going around gates.

13 And so we try to -- what we'll do is we'll bunch up, and so
14 get our machines closer than the 300 feet traveling distance, but
15 not greater than -- or not less than 50 feet, and we'll -- we'll
16 go across and try to keep it almost like one continuous movement
17 across a road crossing.

18 And then the -- the last piece of -- of this 136.7, again,
19 this is all with traveling, is our procedures and the reference to
20 Rule 42.9 with slowing down or stopping, so that there's good
21 communication between, you know, the machine that's slowing down
22 and stopping and the -- the machine that's behind it or following
23 it.

24 MR. HOEPF: Okay, that's great. That's -- that, you know,
25 really helpful. So can you talk a little bit about the 300 versus

1 the 50 feet for the traveling versus working and use in terms of,
2 you know, why the greater distance when traveling?

3 MR. BERNHARD: It's really a function of speed. And the --
4 so it's a function of speed. And then, you know, we -- when we
5 have 300 feet, again, it's going to be also a function of just
6 overall footprint, right, you know. If we had -- in some areas,
7 you're -- you're constrained to, you know, the overall length of
8 the area that you're working, so you know, it -- and where 300 --
9 if we had 300 feet for every piece of machine, it just -- the
10 footprint would be so large that it -- it just wouldn't be
11 practical.

12 So when we're working, the -- it really comes down to
13 they're -- the speed is -- is slower speed and the stopping
14 distance is shorter. So the stopping distance for a piece of
15 equipment that's moving 3, 4, 5 miles an hour is significantly
16 shorter. They can stop in a shorter amount of time than if they
17 were traveling at 20 miles an hour. So we -- we give our
18 operators that opportunity to what we call, you know, closer
19 together, not necessarily bunching up but get closer together than
20 the 300 feet. And again, it's just a -- it's a function of
21 they're able to stop and they're able to, you know, work
22 incredibly safe with inside of that 300 foot envelope, as opposed
23 to when they're traveling.

24 MR. HOEPF: Okay. Great. Yeah, it makes sense that slower
25 speeds and the easier stop. So --

1 MR. FARRAR: Hey, one thing I might add -- one thing I might
2 add -- this is Jay Farrar -- it's also a function of reaction
3 time, okay. So to Tony's point, if I'm increasing my speed, then
4 I want to also be able to increase my reaction time. So it's a --
5 that plays into it, as well. I mean, I can react at 300 feet much
6 better than I can react at 50 feet; hence, I'm going faster so I
7 need more reaction time.

8 MR. HOEPF: Um-hum. Um-hum, right. Yeah, no, I appreciate
9 you -- yeah, thank you for -- thanks for adding that. Yeah, I --
10 I certainly can understand what you're saying.

11 Well, so -- so while we're on the, you know, just kind of
12 while we're on that topic, and again if this something that you
13 guys don't, you know, have -- have expertise on just feel free to
14 just, you know, we can move on. But certainly understand, you
15 know, the greater -- that 300 feet is greater than 50 feet, but do
16 we know, is there an object -- some kind of objective criteria
17 that came into play in terms of coming up with the 50 foot -- or
18 50 feet versus the 300 feet?

19 Is that -- is there some, you know, specific -- you know, I
20 mean, I guess -- I guess what I'm getting at is I presume that
21 neither one of you personally wrote or drafted those -- those
22 rules, but I don't know if you would have any insight into the
23 person who did draft those, you know, rules? Do you know what --
24 do you know how they're specifically came up with the numbers 50
25 feet or 300 feet?

1 MR. BERNHARD: This is -- this is Tony; no, I don't know.
2 And I don't know if there's science or studies behind it. I can
3 assume that it is just probably a function of experience and what
4 -- what, you know, we -- and I say "we," the Company has seen and
5 witnessed over the years, and it's nothing -- I don't -- like I
6 said, I don't -- I don't think there's any science to it I think
7 it's just experience.

8 Jay, do you see it differently?

9 MR. FARRAR: No, what I think about, when this was changing
10 over my long career was what we really had the habit of doing was
11 we were working out stuff too close together. We would get in
12 what I call "assembly line mode," and we were "mixing paint," if
13 you will. So then we thought, all right, we got to put something
14 out there that says you're not going to at least get closer than
15 this.

16 And then we started changing it to, I think Tony touched on
17 it a little bit, but probably 85 percent of our equipment at the
18 maximum allowable travel speed that they can go and stop in that
19 300 foot distance, and in many cases, half of that. So I know
20 that it started originally because we will get -- we were working
21 too close together. And then you know, I think over time it
22 evolved to a little bit of science and to a little bit of more is
23 better type in the distances.

24 I mean, even right now, Tony talks about 300 feet, but if I'm
25 -- and I'll use the Mojave for example, we're going over the --

1 the mountain there, you know, there's grade, there's weather, so
2 we -- we talk a lot about making sure that we -- you have the
3 ability as a operator, your job, is we're going to enhance that
4 from the 300 to maybe 500.

5 MR. HOEPF: Um-hum. Um-hum. Also, could -- oh, sorry, go
6 ahead.

7 MR. FARRAR: Well, phone cut out, my car shut off so I don't
8 know if you heard the last part of what I said or not.

9 MR. HOEPF: I believe there was some discussion about certain
10 circumstances where (indiscernible) greater -- a need for a
11 greater distance; did I -- did I understand that correctly?

12 MR. FARRAR: Absolutely. If you're in a curvy territory,
13 that's a mountainous territory that has a lot of greasers in it
14 where we grease our rail, we -- without a doubt we'll say that
15 we're going to extend our distances out more than 300 feet.

16 But I will tell you there's one other caveat that we always
17 put on it. As an operator, you have to be able to -- to be
18 prepared to stop the machine one-half the rate (indiscernible) to
19 be clear. So although we tell you all these speed, at the end of
20 the day the final part of any job briefing is telling them that
21 you have to be able to operate your machine at a speed that you're
22 able to stop one-half the rate of vision.

23 MR. HOEPF: Okay. Okay. I got you. I got you. So there's
24 a personal responsibility for machine operators to maintain that
25 stopping distance for -- regardless of -- regardless of these

1 rules?

2 MR. BERNHARD: Yeah, that's correct. And this is Tony; and
3 that's -- that's correct. And these are, you know, what -- the
4 rules that they're -- they're minimum. You know, we talk in
5 136.7.5, that third word is -- or the first -- very first phrase
6 is "Keep at least," in there you know, "at least 300 feet behind
7 other on-track equipment." It doesn't say keep 300 feet behind
8 other on-track equipment, and so we're -- we're setting a minimum.

9 And to Jay's point, what we require operators to do is, you
10 know, make sure that they stop and have the distancing to be
11 clear, and there's a lot that goes into that, right. And Jay
12 touched on it. There's a wide variety of environmental
13 conditions. You could have -- the rail could be wet from snow,
14 rain, ice, rail lubricators, curves, grade. You know, even --
15 even foliage from trees can -- can really affect the stopping
16 distance of machines, and so that's -- we, again, really rely on
17 our operators to follow that rule when it comes to stopping within
18 half the distancing to be clear.

19 MR. HOEPF: Okay, got you. Got you. Let me just -- let me
20 just do a couple -- ask you a couple quick clarifying questions
21 here. The title of the rule, you know, 136.7.4, Safe Working
22 Distance Between Machines, would that -- would that also apply to
23 persons who -- who are on the track? Or is that where we talk
24 about 136.7.3, "Work Zones Around Machines"? Or is there some
25 other rule that I should be thinking about?

1 MR. FARRAR: Yeah, so the word --

2 MR. BERNHARD: This is -- this is Tony; and 136.7.3 is -- is
3 really specifically talking about the roadway workers working
4 around machines. And the 136.7.4 and 136.7.5 are the working
5 distance between machines. So it's specifically talking about the
6 distance between the machines and work and travel.

7 MR. HOEPF: Okay, so -- and not necessarily to get into, you
8 know, any of the specifics of the current, you know, accident, but
9 so which -- which one of those rules would have been applicable to
10 this situation where we have an unfortunate impact between --
11 between a machine and a person? Would that -- would that have
12 been 136.7.3, "Work Zones Around Machines" then? Or would it have
13 been the 136.7.4, the "Safe Working Distance Between Machines"?

14 MR. BERNHARD: This is Tony; I'm -- I'm going to say the
15 136.7.4 -- or excuse me, the 136.7.3. is when you have roadway
16 workers around machines, and the instructions with that.

17 MR. HOEPF: Okay. Okay. And so the --

18 MR. BERNHARD: And then --

19 MR. FARRAR: Real quick just so we're clear on something,
20 Tony, because it's really when you're talking about machine to
21 ground people, it's 136.7.3, part (b), right, (b)?

22 MR. BERNHARD: Yeah. And well, it's -- it's both (a) -- or
23 it's both (a) and (b), so you've got the responsibility of the
24 people on the ground, right, the roadway workers, and then (b) is
25 the roadway machine operators in reference to the roadway workers.

1 MR. FARRAR: Yes, that's -- that's correct.

2 MR. BERNHARD: And then also one -- one of the other rules,
3 too, because it's spelled out in our Maintenance of Way rules, is
4 our 43.2, which is the employee safety, and this talks about
5 machine operators and other employees must observe other -- these
6 safety precautions. And we talk about before moving machines
7 operators must warn employees and ensure they are in the clear.
8 And then it talks about tools and materials must be stored in an
9 area designed for that purpose. So really that -- that first
10 bullet would -- would be applicable here.

11 MR. FARRAR: I hate to -- this is Jay Farrar -- I hate to
12 keep going back to this, but understand something; all of this,
13 the big rule is I'm going to operate my machine, prepared to stop
14 one half the distance the track is seen be clear. Whether I'm in
15 work mode, travel mode, or any mode, I have to operate my machine
16 at a speed that where I can safely stop at one half the rate the
17 track is seen to be clear. Whether I'm in work mode or travel
18 mode.

19 MR. HOEPF: Okay. Okay, so -- well, let me -- okay, so I
20 guess if there's -- there's two kinds of things, just for
21 clarification. So for one, can one of you gentleman just kind of
22 talk a little bit about -- about 136.7.3, you know, the work zones
23 around machines; you know, what -- what are the requirements of
24 that? But also, just to clarify, I think what you're saying is
25 that's kind of the secondary rule when compared to this

1 overarching rule of machine operators maintaining this -- the safe
2 stopping distance.

3 And then if you could -- if you could just give us the, you
4 know, the reference for that rule, as well, just so we can, you
5 know, get into the facts of our report. Or if you don't have the
6 number of that, you know, off the top of your head, that's
7 perfectly fine, we can certainly follow-up and get that later. So
8 kind of double-barreled there, but I'll -- I'll let you guys
9 respond.

10 MR. BERNHARD: Okay, we'll start with 136.7 -- let me get to
11 it, I had it. 136.7.3, so this work zones around machines and so
12 (a) talks about the roadway worker and talks about the
13 responsibilities of the roadway worker. So this, a roadway worker
14 must not enter a machine's work zone without first communicating
15 with the operator to establish a safe work procedure. That's
16 saying if the person on the ground, if they need to enter the
17 machine's work zone, they need to -- they need to talk to that --
18 or communicate with the operator about what they're going to do.

19 And so -- and then we go on to describe unless a different
20 work zone is established in the job briefing, the work zone
21 extends from a point 15 feet in front of the machine to a point 15
22 feet behind the machine. So we establish what we call a 15 foot
23 red zone on the -- both the front and rear of the machine.

24 And then we have a note in here that says some machines such
25 as cranes and valves, regulators, also require lateral or side

1 clearance to ensure the safety of all roadway workers. So it --
2 this talks about the lateral side clearances, so regulators have
3 wings that can extend out and create a red zone laterally, as
4 opposed to, you know, front and back. And the same way with
5 cranes.

6 And so, you know, we go into the roadway machine operator and
7 the -- the rules here with what the expectations for what a
8 roadway machine operator is, that they must follow these
9 requirements when operating the roadway worker around the roadway
10 workers. So we talk about the, number one, is your machine is
11 equipped with a horn or back up alarm. Sound the horn three short
12 blasts or ensure the alarm is sounding before making a reverse
13 move; and so that's, you know, if they're going to make a reverse
14 move, make three short blasts with their horn.

15 If you're going to move more than 15 feet, or other work zone
16 distance specified in the job briefings, so it could be -- it
17 could be 20 feet, it could be five feet, if you're -- but whatever
18 -- whatever the work zone is, and we initially start with 15 feet,
19 but give the -- give the operator and the people on the ground the
20 opportunity to change that, if needed, make sure the way is clear
21 before making the move. So making sure that if you're going to
22 move more than 15 feet, that it's -- the way is clear.

23 And finally, we talk about do not approach closer than 15
24 feet to any roadway worker following the track without first
25 communicating with that roadway worker. So this is saying we are

1 kind of going off Item 2, that you aren't going to approach closer
2 than 15 feet without having a -- some sort of communication with
3 that roadway worker.

4 MR. HOEPF: Okay, great. That -- that's very helpful for me.
5 So let me -- before we go to the other point in my double-barreled
6 question there, let -- let me just quickly ask, so would -- would
7 this be the applicable rule because this is about the safe
8 standoff distance between a person on the ground and a machine?
9 And then is it -- and in terms -- in terms of the context of the
10 current accident, is the -- is the 15, the foot here [sic] red
11 zone, is that more applicable than the 50 foot from equipment to
12 equipment? Or am I understanding that --

13 MR. BERNHARD: Yes. Yes, you're understanding that
14 correctly.

15 MR. HOEPF: Okay. Okay.

16 MR. BERNHARD: You understand that correct.

17 MR. HOEPF: Perfect, thank you. Thank you. And then --
18 okay, but then I think -- I think -- and again, it's okay if you
19 guys -- if neither of you know, you know, the specific number of
20 the rule off the top of your head, that's fine, we can follow-up
21 later, but -- but I think -- but you were saying that really there
22 is kind of this overarching responsibility of equipment operators
23 to maintain a safe stopping distance between them and -- and
24 whatever's in front of them. I mean, is that -- is that something
25 you would kind of go about anymore? Or is that -- is that --

1 MR. BERNHARD: Yeah.

2 MR. HOEPF: -- is that basically all there is to say about
3 that rule?

4 MR. BERNHARD: Yes, so this is Tony again: so Rule 42.2.2 is
5 "Other Speed Requirements," and we talked about track covers and
6 machines must be operated at a speed that it will allow the
7 operator to stop in one half the distance the track is seen to be
8 clear. And so kind of like what we were talking about earlier, is
9 that's the -- you know, it's the overarching rule when it comes to
10 operating track car and machines that the expectation is that
11 you're going to be able to stop your machine or track car, and
12 you're going to -- you're actually going to be moving at a speed
13 that you can stop that machine half the distance of everything
14 that is clear in front of you.

15 So if I've got a person that is 25 feet in front of me, I'm
16 going to make sure that I can -- I'm moving at a speed that will
17 allow me to stop in 12 feet, 12-1/2 feet and no more. And so we
18 go on with this Rule 42.2.2, where maximum freight train speed is
19 lower it will govern, so this is -- this is saying that we have
20 some vehicles and equipment that can operate at 45 miles an hour
21 on the track. And then we have, you know, areas of track speed
22 that are 25 miles an hour, so that -- this bullet is saying that
23 it is that you're to operate that track machine at 25 miles an
24 hour. So it's saying that the freight train speed, if it's lower,
25 it's going to govern.

1 We talk about reducing -- the next bullet is reduce speed on
2 curves and branch lines as conditions require when hi-railing at
3 night. So we understand that, you know, when you're hi-railing at
4 night and on branch lines and on curves, the -- it's -- it's to
5 the same as tangent daytime mainline tracks. So you -- you're
6 going to have to make sure that you're reducing your speed
7 accordingly.

8 Then we talk about the environmental conditions that I talked
9 about earlier, is when it's raining or when the rail is wet, only
10 essential hi-rail vehicles are committed on the track. All other
11 hi-rail vehicles must leave the track as soon as possible. So
12 what we talk about here is we are only having our hi-rail vehicles
13 -- essential hi-rail vehicles on the track. So you know, if we
14 have -- and it's really -- it's really a function of trying to
15 limit that -- that risk when it's wet because your stopping
16 distances are so great.

17 And then we have another one, it's a note, it -- operators
18 must take into consideration that greater stopping distance is
19 required to stop a track car under these circumstances. So we're
20 really to drive home that point that when the rail's wet, it is --
21 it's stopping distance is -- is considerably greater.

22 And then the last bullet point is when approaching workmen or
23 others on the track, reduce speed. And if necessary, stop. So we
24 -- we talk about it with the other speed requirements in 42.2.2.
25 And then we talk about, you know, the really specifics working

1 around machines for the roadway worker and roadway machine
2 operators in 136.7.3.

3 MR. HOEPF: Okay. Great. That's an excellent summary, so
4 thank you. Thank you both for that. It's very helpful.

5 So just a couple more quick things for me and then I'll --
6 I'll open it up to the rest of these guys here. The -- so looking
7 at, you know, the context of this current accident, and this is
8 not putting, you know, any blame or anything on anybody, but I
9 mean, it seems that, you know, the -- the tamper operator has some
10 responsibility to, you know, maintain the stopping distance. Do
11 persons on the ground have a responsibility to make sure that
12 they're not -- they're not getting struck by a piece of equipment,
13 in terms of -- in terms of the behavior with, you know, what
14 they're supposed to do? And do they have any rules that apply to
15 them in terms of maintaining safe distance?

16 MR. BERNHARD: Yeah, it goes back to the 136.7.3 with the
17 roadway workers, what the expectation is with the roadway workers
18 that are working around machines in the machine's work zone, and
19 that's really the -- the overarching rule.

20 MR. FARRAR: I think -- this is Jay, I'm sorry. I think the
21 other thing is, is you ask that question but all of us roadway
22 workers have a responsibility to expect something at any time in
23 any direction, and that's kind of like that Overlord rule that
24 Tony talked about a minute -- so you -- you're still responsible
25 whether you're running a machine or whether you're on the ground

1 or you're us guys walking up on a gang and we just saw a job
2 briefing; it's still -- we -- you have a responsibility to expect,
3 you know, anything in any direction at any time. And that's
4 (indiscernible) discussed quite clearly to, you know, everybody
5 who works out here for the railroad.

6 MR. HOEPF: Okay. Okay. So I just -- and just -- I mean,
7 just to kind of clarify, and again to the extent that you know, I
8 know that it's -- you know, this isn't about, you know, assigning
9 responsibility or anything like that, but just, you know,
10 understanding the context of, you know, the current accident where
11 -- and a person on the ground is engaged in some kind of work, you
12 know, are they -- are they supposed to, you know, just be
13 continuously looking around them, you know, to -- is there some
14 kind of, you know, protocol that they would follow to -- I don't
15 know -- I don't know how that would work if they're, you know, if
16 they're -- they're engaged in another task or something, you know,
17 on the -- on the track?

18 Are they supposed to, you know, take a break periodically to
19 see and look for, you know, equipment that might because -- I
20 mean, obviously I understand a personal responsibility, you know,
21 every -- and, you know, everybody's trying to keep themselves as
22 safe as they can, but you know, if you're -- if you're engaged in
23 a task and -- and not expecting some equipment to come -- to come
24 your way, I mean, is there a training or something for that? Or
25 is there a way that that that's supposed to work, you know, when

1 they're supposed to kind of juggle their -- their, you know,
2 safety task versus their primary working task?

3 MR. BERNHARD: So and I'll just kind of build on -- this is
4 Tony again -- so I'll build on what Jay said; is that while we
5 have the, you know, the -- we talked about pretty much at length
6 the 136.7.3, then we -- we also have the, you know, expect a train
7 on any track at any time, or expect, you know, a train car -- you
8 know, expect movement on a track at any time in any direction.
9 And so that, while it doesn't say you need to be looking up, it's
10 -- it's saying that while you may be engrossed in what you're
11 doing, you still need to be cognizant that there is a potential of
12 movement in any direction.

13 So while -- I mean, we -- as much as some people would like
14 to have a rule for every situation, we feel that that one is very
15 comprehensive and it really is -- is guided towards not getting
16 engrossed in what you're doing on the track so that you know to --
17 you're cognizant that there's a potential of movement in any
18 direction while you're there.

19 MR. HOEPF: Okay, great. Thanks. Thanks for that. Last
20 question for me -- well, I might have a couple about it, but I did
21 want to talk about -- I'm not sure if this would fit under
22 operational rules but the -- there's a -- there's a document you
23 provided, the job safety analysis, and that said, you know,
24 consistent with -- with the other rules that indicates keeping 50
25 feet, you know, between on-track equipment while working unless

1 otherwise specified in the job briefing.

2 And I'm just wondering -- there's also a working distance for
3 surfacing gang equipment is if it's within a 150 feet, no
4 exceptions for bunching or working. So I'm just wondering if you
5 could briefly comment on, you know, surfacing gang equipment and
6 -- and there's some -- is there some logic to the 150 feet there?
7 I'm just wondering is there some specific type of risk that's
8 associated with surfacing gang equipment?

9 MR. BERNHARD: Jay, do you remember? I don't.

10 MR. FARRAR: Yeah, I remember it. We were getting surfacing
11 gang equipment (indiscernible). When we were doing our own
12 analysis, when we're trying to do -- you know, prevent stuff like
13 we're talking about from happening, you know, our analysis we're
14 realizing regulators and our tampers were running into each other
15 more than any other piece of equipment we had.

16 So with -- in the spirit of that, we know that machine can
17 run faster. Like, we have some machines that just can't run that
18 fast; we know that machine can run faster, and we knew that we
19 were having more collisions with those types of -- of machines.
20 So we increased the working distance of them, and we increased the
21 traveling distance of them to mitigate some of that risk that we
22 were seeing out there.

23 MR. HOEPF: Okay, great. Very helpful, thank you. Thank
24 you. And then, but I guess the only other question I would just
25 have on that is, you know, the -- I mean obviously job safety

1 analyses are great -- great things to use, great documents to
2 have. I'm just wondering -- and this is not inconsistent with the
3 other rules, but I'm just wondering, you know, just kind of
4 functionally, how -- how does that come into play? You know, the
5 job safety analysis; you know, who -- you know, who comes up with
6 those? How -- you know, how is that distributed? You know, is
7 that -- you know, is this -- the guidance that comes out of this
8 JSA, you know, it -- how is -- how is that guidance, you know,
9 issued in conjunction with the regular rules?

10 MR. FARRAR: So you want me --

11 MR. BERNHARD: Yeah, why don't -- why don't you do it.

12 MR. FARRAR: Okay, so that job safety analysis is something
13 that we, as an engineering department recognize the risk out
14 there. Whether -- and we have several of those JSAs, I'm sure
15 Tony probably told you, but -- so specifically, a team's put
16 together to go through what we recognize at risk and what are the
17 things that we need to do to try to mitigate that risk. And it's
18 a larger team of people that -- that do that because you -- you
19 don't want it to be a silo type of -- or making a rule for
20 everything, as much as understanding what the risk was, and what
21 are the things that we think we can do to prevent those risks.

22 So we -- we put a team together, and then it can be, you
23 know, a Tony and myself, maybe a machine operator, but a large
24 team together to discuss it. And then once we put the -- if it
25 makes it to our safety department, then we put that out to our

1 people and it becomes the discussion topic of, if I'm going to
2 travel my equipment today, then we may talk about what are the
3 risks of on-track travel of travel with -- of equipment? Or we
4 have another one that's for hi-railing. Those are things that
5 you're specifically going to talk about before you have that --
6 that task that you're going to perform. And so job safety
7 analyses are right at the forefront of your discussion before you
8 perform tasks that involve those -- whatever that JSA's for.

9 We don't have tons of them, but we have enough in -- in areas
10 where we have identified risks that we think there should be more
11 attention given to the job briefings and the rules that should be
12 followed and what we need to do. So the JSA gets communicated by
13 people like me and Tony, it can be communicated from the front
14 line leaders like our foremen and assistant foremen, but we ensure
15 that everybody's on the same page before we perform that task.

16 MR. BERNHARD: And this is -- this is Tony; we -- we make
17 these documents readily available through our, what we call our
18 Engineering Bulletin Board that everybody has access to. And then
19 when we make edits or changes to them, it gets -- it gets
20 broadcast out to really everybody that has the -- an email address
21 in the Engineering Department.

22 And while they -- while they coincide very nicely with the
23 rules, they're also -- we've identified some of them as, you know,
24 like best practices to be doing to mitigate your risk. And we try
25 to -- and if you read through it, it is -- and this is where we

1 rely on our -- our operator -- machine operators specifically with
2 this one, to really start at the beginning of their -- of their
3 work event all the way to when they get done and what are the --
4 what are the risks? What are the -- what are the risks that they
5 typically encounter? And you really -- you can systematically see
6 kind of chronologically how each one of those risks are
7 identified, and then how to mitigate them through, you know,
8 either rule or a best practice.

9 MR. FARRAR: And this is Jay again. One thing I'll -- I'll
10 add on top of that, so like for machine operators, and this has
11 been on all of our machines, that JSA that Tony sent to you guys,
12 so they're all required to have it on -- that on their machine.
13 So that's not something that's in my backpack back at the job
14 briefing area; each machine is required to have that on it, and
15 each machine operator and/or front line leader is required to
16 review that when they're getting ready to do stuff.

17 We have them with hi-rail so that -- those documents are
18 readily available to the area that Tony's talking about, but more
19 importantly they're right there on that equipment, when the top
20 grader, if he has any question in his mind, they've got something
21 that they can get to at least read it and ask questions about it.
22 So very readily available and right there with them.

23 MR. HOEPF: Okay, very -- appreciate the detailed response
24 there. One -- one final clarification question for me, sorry.
25 The 150 feet, is that just between equipment? Or would that also

1 be between equipment and persons working on the ground?

2 MR. FARRAR: That's --

3 MR. HOEPF: (Indiscernible) that's okay.

4 MR. FARRAR: Tony, I believe that's just the working distance
5 between the regulators and the tampers; I don't have that rule in
6 front of me, but does that sound correct?

7 MR. BERNHARD: Yes. Yes. That's for that specific group of
8 equipment.

9 MR. HOEPF: Okay. Okay, I got you. And then -- and again, I
10 don't -- don't ask you to speculate or anything, but would either
11 one of you know off the top of your head why that would not apply
12 to persons on the ground?

13 MR. FARRAR: Well, I think one -- I think once again that's
14 kind of what Tony was talking about, was you -- we were talking
15 about equipment that moves faster, it's larger, and like for
16 regulators, especially regulators I'm going to say, their work
17 zone can literally be I'm dragging shoulder for a quarter mile,
18 and on the tie gang operation, and I'm going to say towards this
19 incident, or even a curb gang, we don't -- we don't move ourselves
20 up and down the rail like that in our, what I call assembly line
21 operation, other than like if we're rolling in rail or rolling
22 out. So you -- you're talking about two pieces of equipment that
23 go out some place and they -- their footprint is larger than how
24 we work it in the assembly line type of operation on a tie or a
25 curb gang. Does that make sense to you?

1 MR. HOEPF: I'm sorry, I'm -- I'm struggling a little bit
2 to -- to track the conversation, so yeah. So again, just -- I'm
3 just wondering, you know, it sounds like there's some factors
4 about, you know, these particular types of equipment, you know,
5 for the -- in terms these gangs, you know, would be using and I'm
6 just -- I guess I'm just trying to understand, you know, is there
7 -- you know, does the 150 feet, you know, is there a requirement
8 to stay, you know -- let's say -- okay. Let's say you -- you've
9 got -- you said a tamper would be considered a surfacing
10 equipment?

11 MR. FARRAR: Correct.

12 MR. HOEPF: Okay. So -- so let's say the tamper, and then,
13 you know, 150 feet down the track you've got another tamper, just
14 for this particular discussion, and then Scenario B you've got 150
15 feet down the track, you've got, you know, a person so I'm just --
16 you know, to me it seems like maintaining that distance would make
17 sense whether it's a person or -- or it's, you know, another
18 tamper, but so I'm just wondering is -- is that the case where --

19 MR. FARRAR: Yeah, but --

20 MR. HOEPF: -- (audio distortion) or -- sorry, go ahead.

21 MR. FARRAR: Well, kind of thinking (indiscernible), like
22 because I use the term "assembly line operation." When you have,
23 let's say (indiscernible) you got 25 pieces of equipment on the
24 gang, okay, your footprint gets huge when you start looking at
25 that, what I call an assembly -- when we're in assembly line mode.

1 You get a very large footprint.

2 So I'm not saying that it would be bad to have everything at
3 150 feet, but it doesn't really make sense because we don't have a
4 -- we don't -- we don't have the machines running like a regulator
5 does, which his job is to run up and down the rail pouring in or
6 pushing out rock versus I'm hitting every tie or ever other tie
7 with my tie gang assembly line type of work.

8 MR. BERNHARD: Yeah, so this is Tony; and really to clarify,
9 we -- we talk about the -- the differences, right, between working
10 and traveling, and so when we talk about this 150 feet, it's
11 really -- that's really a function of when they're traveling back.
12 And when equipment is traveling, they need to be able to stop.
13 Even when they're working, they need to be able to stop within
14 half the distance of the, you know, seen to be clear, so it could
15 be -- you know, you could see a roadway worker a mile away and
16 they need to be able to be traveling at a speed that will stop at
17 half a mile and see, you know, what that roadway worker's doing.

18 Now, when we talk about the 150 feet for surfacing equipment,
19 we are saying that they are not going to get within 150 feet of
20 each other at -- really at any point until they flag each other to
21 a stop. Now, if there's a -- the -- when they're working, and
22 this is when you're going to have a roadway worker typically, you
23 know, inside that 300 foot, 50 foot envelope, that's where the --
24 again, the speed is -- is typically very, very slow in relation to
25 traveling.

1 And it's stopping within half the range of distance and then
2 having the roadway worker that's on the ground and the machine
3 operator have communication when they get within, you know, a --
4 the 15 feet or whatever they -- they're form of communication was
5 with the job briefing, because there are times -- and a lot of
6 times -- when you need to be right in front of that tamper and
7 helping it, you know, line and fixing the laser and, you know,
8 doing the stuff that needs to be done with that tamper while it's
9 working.

10 And so and that's where they would have a conversation, hey,
11 I'm going to be right here at the -- at the lights with the -- we
12 call it the "tamper buggy" that's out, I don't know, 50 feet in
13 front of the tamper but it's connected to the tamper so it's
14 really just kind of moving as one unit, and -- and that's where
15 the operator and that -- that person on the ground, usually a
16 foreman, will -- will have that conversation. So really, the 150
17 feet with the surfacing equipment is -- think of it as not
18 necessarily working but when they're traveling. And when they're
19 traveling, if there's a roadway worker, you know, that comes in
20 front of them, that's when -- I mean, rarely does it happen, and
21 when it does the expectation is, is that operator is going to be
22 able to stop his machine or operating that machine where he -- he
23 or she can stop it within half the distance seen to be clear.

24 MR. HOEPF: Okay, I got you. Got you.

25 Okay, thank you guys both very much for that. I'm going to

1 let these other guys take a -- take a chance to ask a few
2 questions.

3 So Joe, I don't know if you want to go back to you, or John?

4 UNIDENTIFIED SPEAKER: So hoping before -- can we go off the
5 record for a second?

6 MR. GORDON: Yes, absolutely.

7 (Off the record.)

8 (On the record.)

9 MR. GORDON: This is Joe Gordon with the NTSB. We are back
10 on the record and would like to continue with the questions
11 related to machine spacing and -- and safe work practices. And
12 we'll go to Mr. David Carr with the FRA.

13 MR. CARR: Good afternoon, gentlemen. My name's Dave Carr.
14 A couple questions I had -- I have based on our previous
15 discussion there. I wanted to circle back to the -- the distance
16 with employees in this working condition that they were in.

17 Now, and I apologize, but I wasn't part of the initial
18 interview, so I don't know if this was -- this ground was already
19 covered, but is it -- as I understand it, was the briefed distance
20 between the laborer and equipment to be at 70 feet?

21 MR. FARRAR: Yes. (Indiscernible). And it was 70 feet
22 because they changed it at the job briefing that -- changed for
23 quite some time that around that particular piece of equipment,
24 they were going to increase it to 70 feet. So that was covered --

25 MR. CARR: Okay.

1 MR. FARRAR: -- through their daily job briefings.

2 MR. CARR: Got you. And if I understand it, when you guys
3 were discussing the rules, each piece of equipment basically has a
4 15 foot read zone around it; so am I to understand would the
5 operator of the tamper, if he was to encroach upon that -- that 70
6 feet, could he do it without an additional job briefing, just as
7 long as he didn't break the 15 foot rule? Or if he's going to
8 encroach upon the 70 feet, would that require an additional job
9 briefing?

10 MR. FARRAR: If he's going to get closer, he has to -- at the
11 minimum, he would have to give a warning where both of them would
12 make eye contact to acknowledge this -- that he was going to get
13 closer. And if it was going to get even closer than that, like
14 inside the 15 feet that Tony talked to you about by the rule, that
15 can only happen through a -- a direct job briefing between the
16 two, and then if maintenance (indiscernible).

17 MR. CARR: Okay, excellent, thank you. My next question,
18 when you talked about expect -- you know, it's the responsibility
19 of every employee to expect movement on any track and from any
20 direction. In this particular type of operation, I understand the
21 laborer's going to be marking the ties and have his back to the
22 following tamper. Now, he's expecting movement as -- as far as
23 their process. Is there a responsibility on him to constantly be
24 checking behind him to ensure that distance is maintained? Or
25 what's the expectation with that laborer ahead of the equipment?

1 MR. FARRAR: I think there's two -- two -- can you hear me
2 okay? This is Jay Farrar. So in that particular -- he may have
3 his back to that machine for 10 ties walking away from it, and he
4 may have his front to that machine 10 ties walking towards it, so
5 he kind of canvasses that area, but it's absolutely going to be
6 his responsibility to make sure he's not getting closer to the
7 machine. Just like it's going to be the machine's [sic]
8 responsibility to make sure that they're not encroaching his work
9 zone, as well. So they both have an onus on them.

10 MR. CARR: All right, appreciate that. My next question
11 would involve the job safety analysis where you discussed that
12 it's kept on each machine. Is there a designated spot that this
13 job safety analysis would be kept? Is there a -- a place that you
14 typically post information on the machine? Or is it just the
15 responsibility of the individual to have it on his person while
16 he's operating the machine?

17 MR. FARRAR: No, it's a requirement of us of the machine
18 operators. We have what we call the Black Book or a folder, and
19 it has many things on it. It has our CEB matrix on it for
20 working, it's got JSAs in it, it's got -- it's just got
21 miscellaneous data in it so the employees have it right there with
22 them. It has our seatbelt matrix in it. Just stuff like that.
23 But yeah, each machine has it, and each operator knows where it
24 is.

25 MR. CARR: All right, thank you. And now, are operators

1 required to keep a logbook? And has that been, you know,
2 uploaded?

3 MR. BERNHARD: Yeah, this is Tony; yes, operators do keep a
4 daily inspection logbook, and I do believe that that has been
5 uploaded.

6 MR. CARR: Okay. And I haven't seen it yet, but also -- and
7 again, if we've -- if this has been covered in the past I
8 apologize -- but am I -- was there one of the drive motors
9 inoperable on this particular day?

10 MR. BERNHARD: Yes.

11 MR. CARR: And -- and would that have affected stopping
12 distance on this equipment?

13 MR. BERNHARD: Not at all. In fact, what (indiscernible),
14 you -- typically, that's what I would call a 4-wheel drive type of
15 machine. When you cap off or lose one of the hydraulic motors
16 that runs the drive system, really what it affects is how quick
17 the machine takes off and how fast the machine will go. So it
18 actually works, for lack of better terms, as an advantage of what
19 we're talking about here because the machine would spinout first
20 before it would actually take off and gather momentum. But it's
21 not uncommon for this type of machine to work with one travel
22 motor in it.

23 MR. CARR: Got you, thank you. And -- and for my education
24 here, can you go over what mechanism the operator has to stop the
25 machine? You know, as I understand it, he indexed the machine;

1 was that to move ahead? And I don't know, from what I guess I
2 understand, that if you enter the joystick, the equipment should
3 stop. Are there other like brake pedals available along with
4 emergency stop button?

5 MR. BERNHARD: So, I don't -- on this particular machine, you
6 sit in what I would call a captain's chair; you have two armrests,
7 one side is the joystick side that you talk about. And to your
8 point, the machine only goes forward, in work mode as you tamp the
9 ties, you push the joystick forward. If you were to just let go
10 of that joystick, the machine would stop (indiscernible) between
11 three and four ties it just comes to a stop.

12 You would think that when he pulled the lever back it would
13 reverse the machine, but it does not. That, in fact, is what
14 drops the work heads. If you pull the lever to what I call the
15 chair side or the left, that is what causes the machine to go in
16 reverse. So that's your right hand functionality.

17 Your left hand functionality is you have a big red button
18 right underneath the palm of your hand; that's your emergency stop
19 button. And then you have two brake mechanisms within just a
20 couple inches of that, that will also stop the machine. And then
21 you have what I call a control panel that's above head. You know,
22 it's above your line of sight, but it has a yellow button on it,
23 which is also a hydraulic cutoff system which will also shut the
24 machine down.

25 All -- all of those actions in work mode, which -- when I say

1 "work mode," which means (indiscernible) to the next machine,
2 stops you within three ties.

3 MR. CARR: Excellent. And is that at -- just at a work
4 speed?

5 MR. BERNHARD: Yes. That would be indexing (ph.) forward
6 using my right hand with the joystick.

7 MR. CARR: All right, and that kind of answers my -- my next
8 question I had. And just what was their estimated -- or I don't
9 know, do we have an actual work speed the equipment was moving at
10 the time of the incident?

11 MR. BERNHARD: The best we can tell through our investigation
12 and (indiscernible) between I'm going to say five, but I would say
13 four and six would be the number, and that's what we did our
14 investigation on for stopping, using all of the mechanisms that I
15 just talked to you about.

16 MR. CARR: Okay. So in -- was that at an expected six miles
17 per hour they should be able to stop within three to four ties?

18 MR. BERNHARD: It was more like 11 feet on -- if it was going
19 the maximum speed, five. I think what we're saying when it was
20 five, I'm just saying four to six, plus or minus, but five. So --

21 MR. CARR: Yeah.

22 MR. BERNHARD: -- on 11 feet -- 11 feet is what it took us to
23 stop in -- in that application.

24 MR. CARR: All right, I think that's all the questions I
25 have. Thank you, gentlemen.

1 MR. GORDON: All right, thank you, David.

2 And Roy Morrison.

3 MR. MORRISON: Yeah, I just have a couple of questions for
4 you guys. So when you -- as you noted in the rule, if a different
5 staking is specified, where is that documented? In a different
6 job briefing?

7 MR. BERNHARD: Aside from the job briefing, you write it down
8 in your job briefing book that says you had a discussion stating
9 that it was going to be, you know, whatever we said it was.

10 In this particular case, as I stated earlier, because we've
11 extended the distance there -- because we used to have a different
12 -- tamper, I want to point that out than the one that was involved
13 in this incident -- but we extended it to 70 feet and in the
14 spirit of that we kept it at that because we do have people
15 working around that area.

16 But it's in bold letters on the job briefing form and
17 discussed daily. And if it should change, the -- I think that
18 (indiscernible) but the question you were asking, and that takes
19 place through job briefings and then they write it down in their
20 job briefing book.

21 MR. MORRISON: And did we get a copy of the job briefing or
22 anybody's job briefing form from that day? Just curious. Was
23 that uploaded?

24 MR. GORDON: Hey, Roy, this is Joe Gordon, NTSB. I haven't
25 seen that, but yeah, that's -- that's something I've got written

1 down as a -- as a note to get -- you know, get the job briefing
2 forms for at least the operator and -- and likely the foreman on
3 the gang, as well.

4 MR. MORRISON: Okay.

5 All right, and what -- in regards to the JSA you were talking
6 about being on every piece of equipment and everything, who is
7 responsible for making sure that's on there? And then is that
8 audited? And if it is audited, whose responsibility is it to
9 audit it?

10 MR. BERNHARD: Excellent question. So that is the
11 responsibility of the machine operator and the manager of the
12 team. It is audited on my -- this particular work group gets
13 audited once a month, and audited to the manager, the front line
14 leader, the operator, and the safety -- the safety captain.

15 So let's say we were doing it today, we took exception
16 because the seatbelt matrix wasn't in there; then that would be
17 noted -- noted as an exception and we would have it to apply end
18 of day or start it the next morning. So all -- once again, all of
19 that gets audited quite often. It's part of what we call our
20 monthly walkthroughs.

21 MR. MORRISON: Okay. And then -- and you said the safety
22 captain is a big part of those monthly walkthroughs, right?

23 MR. BERNHARD: He'll -- he'll certainly participate in those,
24 yes.

25 MR. MORRISON: Okay. And then --

1 MR. BERNHARD: But --

2 MR. MORRISON: Go ahead.

3 MR. BERNHARD: Well, I mean, whether he's there or not, it's
4 still a requirement of the manager and the front line leaders and
5 the equipment manager to walk their group once to twice a month
6 and then they deliver a write-up at the end of the month on what
7 they noted and what we were going to fix, and they have to put a
8 date to when they're going to fix it. Surrounding items like
9 you're talking about.

10 MR. MORRISON: And then I had a quick question about the --
11 these -- is there an official training on the use of an emergency
12 stop button? And then is that -- is that protocol practiced in
13 the field?

14 MR. BERNHARD: Yeah, we have a couple different things.
15 Clearly, we do what I call a "stop distance exercise," which is we
16 go to and we set up cones and we show our people how to estimate
17 their distances based on traveling speed, so we do stop distance
18 exercise, which we require all the operators and front line
19 leaders to go through once a year.

20 Then we have stop testing, which is just doing our stop
21 testing, and then reviewing how that -- with our people. And then
22 we have some discussion, coaching, or best practices on what took
23 place. You know, but the -- the stop -- the operator's required
24 to know all of the ways to stop that machine.

25 And surrounding this event, this operator clearly said he

1 knew all of the ways to stop the machine, but yeah, that -- the
2 big red button, all of them know about. I know about it and I
3 haven't operated a machine in 20 years.

4 MR. MORRISON: That's -- that's all I have.

5 MR. GORDON: Okay, thank you, Roy.

6 John Manutes, any -- any questions from you?

7 MR. MANUTES: No thanks, Joe. Thanks to the UP for being on,
8 answering all the questions. I appreciate it, thank you.

9 MR. GORDON: Yeah, sounds good.

10 So Mike Hoepf, I'll -- I'll send it back over to you. I've
11 just got a couple of questions and then I'll go back to you. I
12 know you've probably got a few things to clean up there.

13 One question -- one question that I had was regarding close-
14 call reporting. Is there a -- I know that we've asked in previous
15 interviews, but our understanding is there is a close-call
16 reporting, near miss reporting mechanism if -- if the workers on
17 that gang have -- have a safety concern; is that correct?

18 MR. FARRAR: Yeah, and strongly encouraged, I might add,
19 because we don't know -- we don't know we have an issue if we're
20 not hearing about it. And I -- you know, I keep saying this but
21 myself or the front line manager, you're not always there, so our
22 employees are strongly encouraged on the close-call reporting,
23 because really not only do we put that out there, but it gives us
24 an opportunity to talk as a team to discuss what took place and
25 try to mitigate so it doesn't happen again.

1 MR. GORDON: All right, thank you, Jay. And as far as that
2 goes, post-accident, have you guys had an opportunity to kind of
3 scour that data and -- and see if there were any close-call, near
4 misses with men on the ground and equipment on these production
5 gangs?

6 MR. FARRAR: I -- I personally haven't. You know, most of my
7 time was just spent out with the people talking about it. And
8 typically, when something like this happens or any event happens,
9 that's when the floodgates open with stuff, so I didn't personally
10 look at that. Tony may have. But I -- I wasn't aware of any and
11 nobody said anything to me. And typically, when something like
12 this happens, you have plenty of people that want to talk to you
13 about stuff.

14 MR. GORDON: Okay.

15 MR. BERNHARD: Yeah, and this is -- this is Tony; one of the
16 -- and just to kind of go off what Jay was saying, we've got what
17 we call "total safety culture," and it's where our peer-to-peer
18 observations, behavior, and it -- we're -- been promoting it for
19 quite some time, and one of the -- I would say the hardest things
20 to gather is -- is exactly that; the close-call, near misses when
21 it comes to, you know, something of that extent.

22 But it, unfortunately, what I've seen is it takes something
23 like this happening and then people are a lot more cognizant of
24 the -- of that risk. And so we probably won't see those
25 observations and that sort of behavior; it's usually about a month

1 and a half to two month lag from the time that that gets observed,
2 and it's all employee driven. And then we, as a management team,
3 along with the employees, you know, review those -- that data.
4 And like I said, it -- it's usually 45, 60 days before we --
5 before we get that, say, filtered up.

6 MR. GORDON: Okay. Okay. All right, well thank you for that
7 answer.

8 And Mike, I'll send it back over to you, if you have anything
9 to -- for the last round there?

10 MR. HOEPF: Yeah, thanks, Joe.

11 Mike Hoepf here, NTSB. So you know, what one kind of -- kind
12 of in the same general bucket is like what Joe had just asked
13 about there, I'm wondering in terms of operational tests, is -- is
14 there an operational test done for like the safe working distance?
15 Is there sort of like a code for that or something?

16 MR. FARRAR: Yeah, not -- that would go under rule review,
17 and it's by observations that we -- we have what we call an SEP,
18 which is our Safety Engagement Plan, which all of our management
19 team and then our front line managers are required to do. So
20 those observations are -- are noted throughout the month on what
21 -- what specific activity they're looking at. But absolutely you
22 can bet that machine spacing, machine stopping (indiscernible)
23 equipment, men-to-men basing, all of that are -- are temping (ph.)
24 activities that our front line team is required to do monthly.

25 MR. HOEPF: Okay.

1 MR. FARRAR: And if we see -- and if we -- if we see an
2 uptick through some of the data like Tony was talking about --
3 because in a perfect world, our people are really starting to
4 police their self, right; I mean, that's when we're really going
5 to get better. So we've gotten big on trying to encourage you to
6 be the guy to stop the line, and more importantly recognize that
7 stopping the line isn't you telling on somebody, it's you saving
8 somebody and helping us get better at that.

9 You know, me being a 30-year railroad, not strongly
10 encouraged in my younger days as it is now, because it's the way
11 were really going to get better. And I think our team is warming
12 up to that, but you got to also recognize that we used to do a lot
13 of stuff with punitive, and it's not like that as much anymore.
14 It's more about what can we do to get better? And we got to hear
15 that from you guys, you're the resident experts, you know, so we
16 can -- so we can make that happen.

17 MR. HOEPF: All right. We're shifting kind of more to a --
18 more of a coaching kind of model, more of a self-reporting nature
19 instead of --

20 MR. FARRAR: Yes and no. I mean, we still test a stringent
21 -- but it is a -- the other piece of it, it's a part you said,
22 which is coaching and training our employees, right? Because you
23 can't expect them not to do something if you haven't coached them
24 properly or trained them properly. And that happens through the
25 type of observations that we do now.

1 MR. HOEPF: Um-hum. Um-hum.

2 MR. FARRAR: Oh, go ahead, Tony, I'm sorry.

3 MR. BERNHARD: Oh, and our -- so we -- you know, we switched
4 our auditing process about two years ago; a year and a half, two
5 years ago, you know, to where it was prior to it was more -- it
6 was punitive, right? So if we saw something it was -- had the
7 potential to lead to discipline.

8 We changed that for a couple different reasons. One was it
9 really made it hard on the manager to, you know, force discipline
10 on something that maybe an employee -- maybe one, he or she didn't
11 know, or two, it wasn't -- you know, the expectation -- it wasn't
12 up to the expectations of the manager, and so we changed our --
13 our auditing process to be more of a coaching and teaching and
14 really the expectation is now that we have to find more, and the
15 expectation is we're going to teach more and we're going to coach
16 more and -- with the idea of instead of coming at everything with
17 a hammer, and coming at everything with hey, we're going to -- we
18 really want you to teach and we really want you to -- to have high
19 expectations. And it has been received very well from both the
20 craft and management sides, and it's been fairly successful the
21 last couple years.

22 MR. HOEPF: Okay.

23 MR. FARRAR: I believe the other -- the other big thing that
24 we've found in the last two years -- and Tony, you can certainly
25 disagree, but your employees tend to be more honest with you about

1 what really took place when they're not sitting there worrying am
2 I in trouble or not? And so we've really got our employees to get
3 better at opening up to us which -- with what really happened,
4 versus us chasing a rabbit down a hole that probably didn't
5 happen, you know it didn't happen, but that's the story they're
6 going with because they don't want to be in trouble.

7 So I think it's really opened up a respect/honesty piece with
8 our people. Clearly, we have a long way to go, but it's so much
9 better than it's ever been in that arena.

10 MR. HOEPF: Um-hum. Um-hum. Yeah, it's such a challenge
11 questioning safety data; you have to build that trust, so I
12 certainly understand what you guys are trying to do there.

13 So let me just ask in, you know, terms of the operational
14 testing data, do you guys -- does that get funneled off to like a
15 safety department? Or do you have a different group do -- like
16 that analyzes that? Or is that something that you guys do?

17 MR. BERNHARD: We -- we all do it, but it go -- every --

18 MR. FARRAR: Well, Tony, why don't you talk about our -- our
19 new system that -- how we're tracking now? But yeah, it all gets
20 collected. Every bit of it.

21 MR. BERNHARD: Yeah, so we -- we collect it and what -- one
22 of the things that we've learned here is that every -- every work
23 group is -- is unique I certain aspects. So Jay's work group
24 that's putting in, you know, a few hundred ties every single day,
25 and you got people that are spiking ties every single day, eight,

1 nine, 10 hours a day is going to be different than a signal
2 maintainer that's inspecting crossings, it's inspecting signals,
3 doing a lot more driving, and so inherently the risks are
4 different.

5 And so from a analysis standpoint, we, just about every
6 quarter our directors -- so Jay, his counterparts on the program
7 side, and then on the track maintenance side, the bridge side, and
8 the signal side -- develop what we call our -- our Safety
9 Engagement Plans, and what they do is they take 10 years' worth of
10 injury data and break it out. And it's very systematic. They
11 break out by day of week, by activity, by hour of day, by
12 position, and they really pinpoint their -- their auditing program
13 based on that information. And so it doesn't change much for Jay,
14 but it may as, you know, more data comes in and -- and as there's
15 less injuries, you know, it -- we're going to have to start
16 looking at different items.

17 But then also, particularly when it comes to exceptions or
18 coaching events, you know, events that fall outside of a standard
19 of when an -- a manager's auditing, that's different amongst each
20 particular workgroup.

21 And Jay, I'll let you kind of talk about how you guys
22 approach your coaching and the coaching that you saw yesterday,
23 the coaching that you saw last month, and how you guys approach
24 that.

25 MR. FARRAR: Yeah, I -- I think the first thing I want to

1 spin on is, as I grew up on the railroad, most of the safety
2 stuff, as an agreement employee, told my foreman or I told my
3 manager and that's how it took place. And now the expectation is
4 from your front line leaders -- and when I say front line leaders,
5 I mean my foremen and assistant foremen; that all of us are
6 engaged in safety activities.

7 So based on the criteria that Tony gave you, each one of
8 those guys has a responsibility and has to note it in a book that
9 they carry with them to discuss what safety observations they're
10 going to make with the -- the people that they're accountable for.
11 So the day is just saying I got in 500 ties today and nobody got
12 hurt. Sign my piece of paper, turn in my Chronologic (ph.) and go
13 home. That is not the expectation of our front line leadership
14 anymore; it's that all of us have a piece of it, all of us can
15 make a difference, all of us got to stop the line.

16 So my workforce and the people who track programs, which you
17 know is about 2500, 3,000 people, were all required to do
18 observations and we're all required to note what we coached or
19 trained upon during those observations, and then we document it.
20 And we document it formally, whether you're management or
21 non-agreement, and we document it non-formally when you are an
22 agreement employee that's responsible for a workforce, so -- and
23 if we see something throughout the month that looks consistent,
24 where we see a trend, then we also have to adjust our plan to
25 start looking at those activities as a front line leadership and

1 management to try to get that trend to go in the right direction.

2 MR. HOEPF: Um-hum. Um-hum. I appreciate the -- I
3 appreciate the response from you guys on that. Let me -- let me
4 ask you this; does UP have a -- a safety management system, as we
5 -- because we talked about SMS, or is there a different kind of
6 macro level approach?

7 MR. FARRAR: So everything gets loaded into what we call our
8 Commit System. And then from there, we -- and that is, you know,
9 how we -- how we input our -- our safety observations. And then
10 from there, we use a couple different programs to generate reports
11 based on whatever we're -- whatever we're really looking for. So
12 it's -- you know, from a programming standpoint, yes, we have a
13 system, and then we have a couple different systems that allow us
14 to build and generate reports as needed.

15 MR. HOEPF: Um-hum, um-hum, okay. All right, thanks. I'm
16 getting -- coming to the end of my questions, here; I'll just go
17 ahead and finish these out. These were just a couple of, sort of,
18 this-and-that questions for me, so apologize, I'm going to bounce
19 around, but I think we've pretty much covered, you know, all the
20 ground otherwise.

21 So just to kind to return to this discussion about the
22 standoff, you know, distance -- the safe working distance, you
23 know, between persons and equipment, just looking at this from a
24 safety perspective, I'm wondering, you know, is there -- is there
25 any type of engineering control or -- or could we -- is it -- can

1 you think of a way that one could be implemented?

2 I'm just wondering, if somebody's operating a piece of
3 equipment and they were to have, you know, a medical episode or
4 something like that and become unconscious, I mean, there's -- is
5 there some other way to maintain those safe working distances, you
6 know, between a person and equipment?

7 I mean, is it -- I guess I'm -- I don't think I'm asking this
8 clearly, but I'm just -- I'm just wondering, it seems like you
9 kind of -- it seems like there's kind of a single point of failure
10 where, you know, and for whatever reason the equipment operator's
11 unable to maintain that distance and there's -- you know, it's not
12 a positive train control thing where you can keep a separation
13 between persons and equipment.

14 Is that how you guys see it? Or is there -- is there some
15 kind of way that some kind of machine could take over to -- to
16 prevent a collision in the event of an operator being unconscious?

17 MR. FARRAR: I mean, I -- I think there's the potential for
18 that. But just like any -- I mean, we -- we really, really,
19 really try hard to make sure our equipment can stop, make sure our
20 people understand the rules, make sure that they're trained. You
21 know, as far as, you know, technology goes to try to figure out a
22 way to stop a machine, it's -- I'm sure that there's -- there's
23 potential there.

24 But there's also -- when -- when we like kind of -- I'm just
25 trying to think of like PPC, from a PPC standpoint, yes and no,

1 because there are times when you need to have a person that is,
2 you know, literally five feet in front of that piece of equipment,
3 so how do you overwrite that if somebody has a stroke or something
4 while they're operating that piece of equipment?

5 I mean, it's -- I think it's possible but it is -- there's so
6 many variables when we are working with on-track equipment and
7 people that it really comes down to machines that work and
8 operators that know, are trained, and follow the rules, because it
9 would -- I mean, it's -- it's very similar to the construction
10 industry.

11 You know, as much as you would like to have, you know, people
12 that are working within the arc distance of an excavator, to shut
13 the excavator down if their excavator gets too close to a person,
14 how does that excavator arm know that it's a person and not a
15 tree? And it's the same way with -- with our equipment; how does
16 that piece of equipment know that it's a person and, say, not a
17 deer or a bird?

18 And so it -- we can -- we, you know, within -- and I'm sure
19 the technology will develop and I'm sure we'll -- we'll explore
20 it, but it's -- it's really going to be a function of proper
21 equipment, proper operators that are trained that know how to
22 operate, and like any -- everything else, I don't know -- I don't
23 know how we can develop systems that incorporate every single
24 potential.

25 MR. HOEPF: Um-hum. Yeah, I realize it's a difficult

1 problem. I'm really, you know, just kind of asking my questions
2 and I'm just, you know, kind of exploring safety interventions and
3 -- and really just trying to pick your guys' brains of, you know,
4 is there -- is there a solution to, you know, preventing a similar
5 type of accident, you know, so that -- for this in the future?
6 And you know, it's -- it's been -- definitely a difficult problem
7 from an engineering standpoint.

8 You know, I think you kind of touched on actually was going
9 to be my final question, which was just, you know, is it -- would
10 it be possible to increase the distance between, you know, these
11 machines and workers? Are there -- you know, I think you --
12 you've indicated that there's certain situations where they --
13 there's, you know, a need to have people coming in close contact
14 with the machines. You could -- is that kind of an accurate
15 summary; that it would be impractical to -- to increase those --
16 those standoff distances?

17 MR. BERNHARD: And -- and I think -- Jay, you can follow-up
18 here, but the way I look at it is that this workgroup identified
19 that risk, and they -- they, on their own or amongst the team,
20 increased that distance. And so if we would double it or triple
21 it, then it's -- I -- if it was 90 feet or 100 feet I'm not sure
22 -- I don't know if -- if this -- it would have changed anything in
23 this particular instance. But then you introduce a practicality
24 in how we operate our machines and having people really within,
25 you know, as an on -- as-needed basis to have people in some of

1 these work zones, but that's where the communication and the --
2 and the job briefings are very important.

3 Jay, did you have something else?

4 MR. FARRAR: Yeah, I think for me more typically the easy
5 answer probably would be that. But I know that the last tie that
6 was tamped in this particular case before striking the individual,
7 that was 70 plus feet. So in my mind, would 30 more feet have
8 made a difference? I don't -- I honestly don't think it would
9 have. And quite honestly, if he would have went 30 more feet, he
10 would have ran into the piece of equipment that was in front of
11 him. So I just don't know that -- that I think increasing it to,
12 you know, 100 or 150 feet.

13 So in a perfect world, we don't have any ground people down
14 there. And I can tell you that we work towards that automation of
15 our tie gangs probably more than anything, is eliminating people
16 from being on the ground at all. So to me, that's when we're
17 going to get to where we need to be and we're working on different
18 technology to do that. But I -- I don't know that increasing it
19 to the 100 feet I this particular case really would have made a
20 difference.

21 MR. HOEPF: Okay, that's -- that's really interesting. It
22 just sounds like you guys are making a different, you know -- it
23 sounds like the more practical way to engineer this risk is you
24 trying to get the workers off the ground so they're not in a place
25 of risk; is that what you're saying?

1 MR. FARRAR: Absolutely. I mean, what we used to have --
2 like I -- I hate to keep dating myself but, you know, when I
3 started out on the railroad -- now we have 10 to 14 laborers; when
4 I started out, it was 25 laborers, 28 laborers. So I mean, the
5 technology's really getting it automated enough that we don't have
6 people on the ground, other than your front line leaders that are
7 observing the work from the track side.

8 MR. HOEPF: All right, well I thank you, gentlemen, both so
9 much. I'll turn it back over to the rest of the team for any
10 additional final questions.

11 MR. GORDON: All right, thank you, Mike.

12 Now I will go around real quick. FRA, David, you got
13 anything?

14 MR. CARR: Yeah, just -- this is Dave Carr with the FRA.
15 Just a couple quick questions, kind of circling back to the
16 documentation around training and testing there. You mentioned
17 your Safety Engagement Plan and, you know, the efficiency testing.
18 Are -- so when you're testing individuals for like let's say the
19 safe stopping distance, or you know, having, you know, required
20 documentation on their -- their equipment; are those specific
21 tests broken out so that you know exactly what you tested for?
22 Like --

23 MR. FARRAR: Yes.

24 MR. CARR: -- I guess to be more specific, for the tamper
25 operator in question, is his efficiency testing going to show like

1 how many times he was tested on stopping distance?

2 MR. FARRAR: Yeah, it would show stopping distance. It would
3 show lockout/tagout, you know, many things that -- that we test
4 for. On this -- I don't have his testing stuff in front of me. I
5 know that he had a recent test, but -- within, you know, a week or
6 so of this. I know that he had a one-on-one discussion with the
7 management team, which is that time when we talk about just what
8 we're talking about here; what the expectation is of you, what do
9 you need to do your job, that kind of stuff.

10 I know that that took place within a few days of this event.
11 But yeah, we -- we track all of it and view our (indiscernible) to
12 our Taboo system (ph.) we can see what type of observations are
13 taking place, and we can see a general -- of what the comment was
14 behind it.

15 MR. CARR: Got you. And just one more note on that; the
16 stopping distance type testing, are these tests like done
17 unannounced where, you know, operators are tested without an
18 expectation of coming to a stop?

19 MR. FARRAR: We -- yeah, we do it two ways. We do that
20 efficiency test where we'll do it at night, on the curves, when
21 we're backing out in the morning, and you know, those kind -- and
22 the environments that Tony talked about earlier.

23 But the other one is a training piece one, which is to stop
24 (indiscernible) which is where we set the cones out, we talk to
25 the operator first, okay, you know all the ways you can stop your

1 machine. We want you to approach this cone at X-miles an hour,
2 and typically what -- you know, what your maximum allowance full
3 speed is for that piece of equipment, and then we want you to hit
4 the brakes and see how far it takes you to stop. And then we
5 discuss how far they think it is, and then we wheel it off and
6 show it how far it is. So there's the training piece, as well as
7 the efficiency piece.

8 MR. CARR: Oh, excellent. And just my last question, when we
9 were talking about close -- close-call reporting, so if an
10 individual comes in, you know, talks to his supervisor, are these
11 close-call incidents documented anywhere?

12 MR. FARRAR: Our management team is required to, any time a
13 person has a close-call report, to put it into the system because
14 it's the only way we learn from it. (Indiscernible) I'm positive
15 that there are, but for those -- the expectation is, is we
16 document it in our -- close-call reporting, and so that we can all
17 learn from it and know about it.

18 MR. CARR: All right, thank you. That concludes my
19 questions.

20 MR. GORDON: Thank you, David.

21 And Roy Morrison, BMWED.

22 MR. MORRISON: I don't have any other questions. Thank you,
23 guys.

24 MR. GORDON: All right, thanks.

25 So I guess the only question that I've got, guys, and I -- I

1 really appreciate you hanging in there with us, it's been a long
2 interview and we're almost done. Post-accident on this one, have
3 you -- have you guys taken any post-accident actions? Any -- any
4 type of standdown? Anything that's been done, you know, with what
5 you know so far from the -- from the accident?

6 MR. BERNHARD: I'll take this, Jay, and then you can fill in
7 any of the holes here. But so starting this month, we developed a
8 three-month, what we call our collision avoidance plan, and it
9 talk a lot about what Jay visited with us about here. Let me pull
10 it up, but what it -- what it really is coming down to, is that it
11 -- each month we have very specific activities and very targeted
12 activities.

13 So in March, we're having our workers perform that stopping
14 distance exercise on -- on their equipment. And we've got a
15 document, a standard document that we're using for this equipment.
16 And then in April we're doing structured stop tests, and this is,
17 you know, to test and ensure operators are traveling at -- and you
18 know, and being prepared to stop. And then in May, we are doing
19 a, what we're calling a equipment signal to stop test, and this is
20 where we have a very controlled environment where we are -- we
21 have different ways that equipment signals to stop to each other.

22 And some -- sometimes they use flashing lights, sometimes
23 they use the radio, sometimes they use a hard hat, and to -- to
24 signal that they're stopping. And so what we're going to be doing
25 is having one of the machines, the rear machine, not signal back

1 that they are stopping but with the intent that they are going to
2 stop and see what that lead machine does. And so we have each one
3 of these months it's -- we've got a very specific standard work of
4 how we're going to do this.

5 We've rolled it out to all of our -- all of our people;
6 management, you know, non-agreement, agreement, everybody and this
7 is -- really it's not a "I gotcha" type of event, but it's more of
8 a teaching and training. And then -- and then as we're going
9 through these three months and following that one, we're -- we've
10 trained people, we've set the expectations, and then we're going
11 to audit against those expectations following each one of these
12 months. So then -- so that's kind of what we're doing on the --
13 on the management side.

14 The -- our Total Safety Culture, which is an employee driven
15 safety group, are going to be following a very similar process,
16 but focusing more on the behaviors; what's driving people not to
17 pay attention? And -- and having those discussions. Kind of the
18 peeling back a couple layers of the onion and diving deeper into
19 the behavior piece.

20 MR. GORDON: All right, very good.

21 Jay, anything to add there?

22 MR. FARRAR: Well, yeah, I think there's one important piece.
23 Clearly, when something like this happens, it -- it gets -- it
24 goes all over the railroad, and these guys are close and they --
25 they all know each other or have worked around each other, so

1 we've been out having standdowns with our teams because this --
2 this is the ultimate failure; whether it was an operator error,
3 equipment error, or different things, it was the ultimate failure.

4 So it's important to go out and talk with our teams, and
5 we've been doing it. I've been out on a mass mission to talk with
6 all mine, but I know in Track Programs we've led efforts of
7 discussing this, and getting our people to understand that if we
8 -- if there's anything to come from something so tragic of
9 happening, in terms of learning and preventing it from happening
10 again? So giving our employees an opportunity to talk about it
11 without trying to make it too pointed in what we think happened,
12 but more about educating them that we all have -- can do something
13 about it if we want to speak up and do something about it.

14 So I think the -- in the spirit of that, we've had a lot of
15 very healthy discussions concerning preventing people from getting
16 hit. Or you know, we have machine placements which we've seen a
17 little uptick in in trying to prevent those things, and getting
18 everybody to own it and you know, stopping the line and preventing
19 it from happening. So a lot of discussions with our teams in
20 Track Programs.

21 MR. GORDON: All right, great.

22 Now, I really appreciate you guys taking that -- you know,
23 taking that approach and -- and you know, getting the word out.
24 And it sounds like, you know, it sounds like that's well on its
25 way, so that's -- that's much appreciated.

1 I'll just -- before we go off the record there, you know,
2 just give -- give anybody an opportunity to speak up if they have
3 anything else and --

4 MR. MANUTES: Yeah, Joe, John Manutes.

5 MR. GORDON: Yeah.

6 MR. MANUTES: Hey, fellows, it's John Manutes, NTSB. Two
7 very quick questions. One is, would you -- by rule, would you
8 have expected that the operator of the -- tamper be wearing their
9 seatbelt at the time of the accident?

10 MR. FARRAR: I would have to tell you that I would have to
11 look at the matrix. I think in that particular machine and work
12 mode is not required to, but quite honestly without having the
13 matrix in front of me, I couldn't tell you that for sure.

14 MR. MANUTES: Okay. Follow-up then, could you guys upload
15 that matrix for us (indiscernible)?

16 MR. FARRAR: Tony, you have that right, the matrix?

17 MR. BERNHARD: Yeah. Yeah, we can -- we can do that.

18 MR. MANUTES: That would be helpful, thank you. And then
19 just -- I just wanted a yes or no, just to totally close the loop
20 on one question. Post-accident, have you made any rule changes to
21 Union Pacific safety rules or put out any general orders of -- any
22 associated instructions that change any of the rules based on this
23 accident?

24 MR. FARRAR: No.

25 MR. MANUTES: Okay, thank you, just wanted to close that.

1 Appreciate it.

2 MR. GORDON: Thanks, John.

3 All right, any -- anyone have anything else?

4 (No audible response.)

5 MR. GORDON: All right, hearing none, I'm going to -- we're
6 going to go off the record there.

7 (Whereupon, the interview was concluded.)

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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: UNION PACIFIC RAILWAY ROADWAY
 WORKER FATALITY IN VAIL,
 ARIZONA, ON JANUARY 31, 2021
 Interview of Anthony "Tony" Bernhard
 and Jay Farrar

ACCIDENT NO.: RRD21LR007

PLACE: Via telephone

DATE:

was held according to the record, and that this is the original,
complete, true and accurate transcript which has been transcribed
to the best of my skill and ability.



Elaine M. LaRosee
Transcriber