UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL AMTRAK DERAILMENT	*	
NEAR JOPLIN, MONTANA	*	Accident No.: RRD21MR017
ON SEPTEMBER 25, 2021	*	
	*	

Interview of: JOSH McCRACKEN, Head Welder
Burlington Northern and Sante Fe Railroad

Via Telephone

Tuesday,
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I N T E R V I E W

MR. LLOYD: We are on the record. Good morning everyone. My name is Troy Lloyd with the National Transportation Safety Board. Today is September 28th, 2021, and we are conducting an interview with Mr. Josh McCracken, who is the head welder for the Burlington Northern and Sante Fe Railroad. Mr. McCracken, who works for BNSF Railroad, is a head welder.

This interview is in connection with an accident that occurred on September 25h, 2021, where Amtrak train number 7 derailed on the high line subdivision track, which is a single main track. The accident occurred in Joplin, Montana on BNSF single main track located on the high line subdivision. The NTSB accident reference number for this accident is RRD21MR017. That's how the NTSB will keep that reference number, okay?

The accident -- the purpose of the accident investigation is to increase safety, not to assign fault, blame or liability. The NTSB cannot offer any guarantee to confidentiality or immunity from legal or certificate actions. Like I told you, you'll get a copy of the transcript. That transcript will go into a public docket. Once the interview, sort of, gets to that ending format, everything will be loaded up into a public docket. The interviewee has a choice of one representation.

Do you choose to have a representative on your side?

MR. McCRACKEN: Sure.

MR. LLOYD: Is there a Union BMWE?

MR. SAMPSON: Zane Sampson.

MR. LLOYD: Will be representing the interviewee.

Do you understand it's going to be recorded?

MR. McCRACKEN: Yes.

MR. LLOYD: Okay, you're good?

So before we start the interview and get around to questions, I'm going to go around the room. I'm going to introduce myself and then I'm going to the right.

Again, my name is Troy Lloyd. The spelling of my last name L-l-o-y-d. And I'm the track group chairman with the National Transportation Safety Board.

MR. JENNER: Stephen Jenner, S-t-e-p-h-e-n J-e-n-n-e-r. I'm a human performance investigator with the NTSB.

MR. RINGELMAN: Ryan Ringelman, R-y-a-n R-i-n-g-e-l-m-a-n, General Director of System Safety, BNSF.

MR. NAGEL: Robert Nagel, R-o-b-e-r-t N-a-g-e-l. I am -- with Amtrak. I am the senior manager of (indiscernible) construction.

MR. HAMMOND: Matthew Hammond, H-a-m-m-o-n-d. I'm with BNSF Railway and I'm the north lines chief.

MR. MORRISON: Roy Morrison, M-o-r-r-i-s-o-n. I'm with the Brotherhood of Maintenance of Way, Director of Safety.

MR. ANDERSON: Todd Anderson, FRA Track Safety Inspector, Bismarck, North Dakota. Last name A-n-d-e-r-s-o-n.

MR. LIGON: Quinn Ligon, FRA Track Safety Inspector,

Billings, Montana. Last name is L-i-g-o-n.

MR. LUCK: Blain Luck, Rail Integrity Specialist, FRA. Last name spelling, L-u-c-k.

MR. SAMPSON: Zane Sampson, Vice General Chairman, BMWE, representative. Last name spelling, S-a-m-p-s-o-n.

MR. McCRACKEN: Josh McCracken, mobile welder, BNSF, M-c-C-r-a-c-k-e-n.

MR. LLOYD: All right. We're going to start with the questions.

INTERVIEW OF JOSH McCRACKEN

BY MR. LLOYD:

Q. Josh, what's your proper job title currently at BNSF?

A. Mobile welder.

Q. Mobile welder? So tell me about Josh. Tell me about Josh's history. How'd you get to where you are, years of service with BNS (sic)? Tell me from the day you got hired, your training and all that stuff. Talk to me.

A. Hired on April 4th, 2013. Hired on out of Shelby, and then at six months got FRA'd. Tier 2'd, got foreman (indiscernible) all dates besides group 2. (Indiscernible). Was on the mobile welders November of 2013, got head welder in January, stayed on it pretty much the whole time until now. I mean, jumped off two, three months here and there about two to three times for foreman -- service crew foreman and then back to the mobile welders.

Q. So you've been a track foreman --

A. Yeah.
Q. You've been out to Guy?
A. Yes.
Q. You've been to Guy out there putting in rail, doing ties?
A. I've -- we do it a lot as a mobile welder to help the road masters out. We'll go cut in frogs, switch point stock rails, and then we just weld them up.
Q. Okay. So you'll do all that. Will your gang come in and -- will one gang come in and do the rails and you guys will come in there, or do you do it all?
A. We'll do it all or we'll help with the sections, either way. Whatever's needed.
Q. Okay. So tell me, as a head welder, what's that tell me? What do you do? What's a head welder do?
A. We shoot thermites and weld frogs to make sure we keep traffic flowing.
Q. So what does one have to for the BNS to become a head welder?
A. You used to have to take five classes down Kansas. Now, you -- I think they got it down to four. They combined basics and elements, was one, but they combined that with the fifth one. So you've got thermite, frog, basics and element, and then switch plant stock rail.
Q. So they go through so you can -- so someone can go in there and doesn't know a thing about welding, thermite welding, go to this class and --

A. Well, you have to do it in steps. You've been a grinder, they'll send you to thermite. Once you've been a head welder, you have 34 months, I believe it is, or 35 months to complete all the classes or else then you're DQ'd. You're not allowed to bid those jobs if you don't get all the classes.

Q. So there's a process --

A. Yes.

Q. -- to go? I just can't -- a regular track man cannot --

A. Correct.

Q. -- go to (indiscernible). So you have to go through a process?

A. Yes.

Q. Certified on grinding?

A. Yes.

Q. All that stuff. You conquer that, you become the subject-matter expert of that. Then you can set there and --

A. Yeah.

Q. -- hey, I want to be a head welder. Is that fitted (ph.) -- is that fitted school?

A. It's a fitted (ph.) position, which then allows you to go to classes.

Q. Gotcha.

A. And then you schedule the classes and, like I said, you have a time period to obtain all the classes or else then you're disqualified from bidding that position -- or bumping that

position, I should say.
Q. So you said they had it at five down to four. Is that --
A. I think they combined --
Q. -- all in one sitting?
A. Well, you go a different -- well, when I did it, you go at different times. You go down in two-week increments.
Q. Okay. Two-week increments. So you'd the welding stock rails and frogs, that would be a two-week portion?
A. Correct, and then thermite was two weeks, basics and elements was two weeks.
Q. Gotcha, okay. I think I saw your name out there on the side of the rail a few times out there --
A. Yes.
Q. -- where we (indiscernible). So why -- explain to me what you were doing? Why would I see your name on the side of the rail?
A. So we were going in front of the gang before they got here. So we destress, cut and pull. So we'll go out, cut the rail, see what it does. We've got out chart -- pull chart. So we go out from 95, see what it does, here's our temperature, here's 95. Go over (indiscernible) should gap at inch-and-a-half. So with -- as long as it's an inch-and-a-half or higher, you know, based on the temperature, then we take another inch, we pull that shut, shoot the thermite, make sure there's no added rail there so when the tie gangs come through, you know, lifting and servicing and

whatnot.
Q. Why is --
A. To keep any misalignment from happening and whatnot.
Q. So that's what this thermite welding does? So talk through the process. How does that stop misalignment?
A. What we're doing is we're taking out extra rail that possibly could be there and ensuring that there is no added rail there. So we're making our match marks, showing what it did, taking extra, showing -- you know, to remove rail. Like, if the sections come in at 30 below and they can't pull a 5-inch gap, they're going to add 3 inches and their match marks are going to show that. So then we've got something to go off of. When we go back, we know we need to remove this. You know, if it's greater than this and we're going to destress, we're going to knock anchors off for 400 feet and adjust the rail accordingly.
Q. So we're not adding rail?
A. Correct.
Q. What did you do out there? What was the last time you was out on that area working doing these -- doing this destressing, this thermite welding?
A. Middle of August roughly. I don't know the exact date. Middle of August though because we were ahead of the tie gang.
Q. Middle of August. And you were head of the tie gang. Do you remember how far apart that work took place?
A. I couldn't tell you exactly. We've got a foreman of the

trucks. There's four trucks on our mobile welding crew. I'm on a different mobile welder now, but we had four trucks with a foreman on it.

Q. So talk to me about something. You guys go in, you get this segment of track, you're cutting this rail and you're seeing what it does. It pops. I've seen some areas with your name on it. 1.75-RT-46 (ph.). (Indiscernible) probably rail temperate when you took that?

A. Correct.

Q. Obvious rail temperate was 46 degrees, so when you cut this rail at 1.75-inch, when it cuts, it pop out --

A. Correct.

Q. -- that far.

A. It opened an inch-and-three-quarters.

Q. And then you want to pull it in three-quarters of an inch to get that one-inch gap and weld it?

A. No.

Q. Is that how you do it? So tell me --

A. That's not correct.

Q. Well --

A. We want to cut minimum -- like I said, we'll go off the pull chart and see what it does, and if it's equal or above what it's supposed to do, we'll take another inch.

Q. Gotcha, and then pull?

A. Correct. So technically, we're taking two-and-three-quarter

because we'll have our inch gap.
Q. So you get this track set, this track is set, we got that rail neutral temperature pretty much to where it needs to be. I come through, I do -- I have a tie maintenance program. So I'm -- I've got tie strikers out there, TR-10s or whatever they use, sort of picking up the track a little bit and pulling out ties. You know, we're jerking. We've all seen (indiscernible) in action. We're jerking the rails, we're putting in ties, we're doing some two, three in a row. Sometimes, we get out of face. I don't know what BNSF's definition of out-of-face tie removal is, but to that point where you could disturb the rail neutral temperature. So what I'm getting at is you go through and you adjust it and you come through and you're jerking stuff around, you're knocking off anchors, all that stuff, you come through and service it. Is there any type of -- now, would that sort of do anything with that rail neutral temperature; once you have it -- once your gang has it set and I bring a tie gang in here and I start jerking things around, with tie inserters slapping stuff in, pulling stuff out? All those (indiscernible) are buried on that rail, when it's pulling stuff out, does that affect that neutral temperature that you had pre-adjusted?
A. It doesn't affect where I set it, but if you move it up and down, the rail itself, you could be adding a rail -- you know what I -- and then, obviously, breaking and other ways.
Q. Okay. So what's --

A. You can move the rail. There's always going to be movement of the rail.
Q. So you say -- so what's bad about adding rail?
A. Adding rail. So if you have a big swap in temperatures, that can cause kinks, misalignment. Hotter temperatures, you're going to get thermal misalignment. You're going to get dog legs in it, sun kinks.
Q. So do you guys -- when that rail gang leaves, they're done. Do you come back and see if the rail neutral temperature was there? Do you come back and readjust again to see -- once they got done, you check it again?
A. We don't. If the TI or whoever sees a problem, or they have any concerns, then, yeah, we'll go back and we'll cut it just to be safe.
Q. Gotcha.
A. To see what it does. If it blows open, they we just pull it back shut and shoot the weld back up.
Q. So is that normal process to come and adjust before and then have the gang go in and do their work and not come back and check that to see what we have for a neutral temperature? When you left, the gang's jerking stuff around, does it come back to where that neutral temperature is setting out again? Doesn't someone check that or --
A. I don't know that.
MS. LEON: I'm done. Blain, questions?

MR. LUCK: You want me to start?

MR. LLOYD: Yeah, you can start.

MR. LUCK: Okay. Blain, B-l-a-i-n, last name Luck, L-u-c-k.

BY MR. LUCK:

Q. Did you go through any CWR training?

A. Yes. Every year we go through it.

Q. What time of year every year?

A. It depends.

Q. What --

A. We've done it in January and we've done it towards the end of the year.

Q. What was it this previous year?

A. I want to say February.

Q. And prior to that, do you recall?

A. I'd like to say it's been hit and miss a couple of times.

Q. Who does the training for you?

A. Jeremy.

Q. And Jeremy would be?

A. Division engineer.

Q. And just for the record because we're trying to -- you say you usually knock anchors 400 feet in both directions?

A. If we're doing a full out destress, yeah, we'll go 400 feet. If we're at a fixed object, we'll go outside the fixed object and bang the anchors, or at the location, we'll go 200 feet each way.

Q. Okay.

A. What we've been doing is cutting and pulling, seeing what the rail does, and then -- because nine times out of ten, it's blowing open. If it doesn't, then we're taking the anchors off and doing full-out destress on it.

Q. Okay. This particular curve at the derailment location, when -- you did all four welds?

A. Well, we had -- I believe how it went was on the west side, because I had a new grinder, we did the left tangent, and then the right tangent, he had a leaker (ph.). We had to -- suction had to plug (indiscernible), which we had to adjust on that. And then on the east side of the curve as well, I believe, we did that side.

Q. Okay. Could you explain for the record what a leaker is?

A. He -- sorry about that. I had a new grinder and he's new to the process, and he had thought that he packed underneath the ball.

UNIDENTIFIED: Yeah, the plate.

MR. McCRACKEN: (Indiscernible) tapped, came and squared it out. So, therefore, we now have to cut that out, cut out a new piece of rail, shoot our bar dropper here, pull it down here to get the rail out.

BY MR. LUCK:

Q. When you said pack the weld, are you using butay (ph.) or --

A. We're using --

Q. -- Orgotherm (ph.)?

A. Yeah, we're sand now.

Q. So Orgotherm. Yeah. The weld packed with sand, okay.
A. We used to use butay. It was like a --
MR. LLOYD: Clay.
MR. McCRACKEN: -- play-doh, mud, whatever you want to call it, which then you could welding pops and stop those leakers.
BY MR. LUCK:
Q. In this particular curve, did you knock anchors on any of the welds associated with that curve?
A. On the -- where we had to put the plug rail in, we did have to knock anchors.
Q. How about the adjustment, or you called it the destress on --
A. And that's why we're not putting just on the rail because we're doing cut and pull.
Q. For the plug rail?
A. Correct.
Q. Okay. The welds though on the east and the west end just leading into the curves, did you knock anchors for those?
A. We still have to knock a handful of anchors to see what it does, but if we don't knock the anchors, we're told not to put the adjust on because we're cutting and pulling.
Q. What would you classify as a handful of anchors?
A. 100 feet.
Q. 100 feet each direction?
A. Altogether.
Q. 50 feet each direction?

A. Yeah.
Q. After you record the weld data, what -- how it responded?
A. Yes.
Q. The gap, rail temperature, that pertinent information that you're putting on the rail, do you log that into the BNSF system?
A. Yes.
Q. You personally do?
A. Yes.
Q. Was that done on the day you're doing the welds?
A. Yes. We were working at night, so it was probably done the day after.

MR. LUCK: That's all I have for now.

MR. LIGON: I don't have any other questions that haven't been asked.

UNIDENTIFIED: Quinn Ligon.

MR. LIGON: Quinn Ligon, FRA Track. I don’t have any other questions that haven't been asked, just a clarification.

BY MR. LIGON:

Q. The last time you worked in that area was when you made the welds prior to the tie gang activity?
A. Yes, I believe so. Yeah. Because after that, I want to say that I went -- because that's when I just came back, so, yeah, and we were working to the east.
Q. So any other maintenance beyond that, you wouldn't have been aware of or --

A. I did the -- I did a head wash on the siding, 1015.8, I want to say, 1016, somewhere right in there.

MR. LIGON: That's all I have.

MR. ANDERSON: Todd Anderson, FRA, Track Safety. I don't have any questions for you, man. Thank you.

MR. MORRISON: Roy Morrison, BOWE. I just had a question about --

UNIDENTIFIED: Speak up.

MR. MORRISON: Roy Morrison, Brotherhood of Maintenance of Way.

BY MR. MORRISON:

Q. I'm just wondering about the plug rail a little bit, if you could talk to us -- you're the one who cut in the plug?

A. No. Shelby Section (ph.) came out.

Q. Okay. I misunderstood.

MR. MORRISON: And then I have no other questions.

MR. HAMMOND: Matt Hammond with BNSF.

BY MR. HAMMOND:

Q. Josh, I just have a clarification to ask you.

A. Yes?

Q. Earlier when you were speaking, I heard you say, if you don't knock anchors, you don't document the adjust. My question is, are you referring to not documenting as a destress?

A. Correct, because we're not doing a full destress. Destress is removing all of the anchors from the rail so it's unrestrained

rail.
Q. Would it be fair to say that it's -- if anchors are not knocked, it's a rail removal procedure, and if anchors are knocked for 400 feet, that's a formal destress procedure, and that is the differentiator you were describing in your procedures?
A. That's correct.
Q. Thank you, Josh.
MR. HAMMOND: I have no other questions.
MR. NAGEL: Robert Nagel with Amtrak. I don't have any questions at this time.
MR. RINGELMAN: Ryan Ringelman. No questions.
MR. JENNER: Stephen Jenner.
BY MR. JENNER:
Q. You had mentioned one type of annual training that you had?
A. CWR.
Q. CWR. Is there any other type of annual training?
A. Yeah. We do a welding requalification. They actually just changed it last year and now it's every three years, but prior to that, you'd do it every two years for your welding re-qualifications.
Q. Is there anything else?
A. And, obviously, our tier 3, tier 2. I think they're changing -- they changed that. Mine's still good for five years, but now I think it's only good for three years. I did mine until '17, so I'm good until 2022, but I think they changed that to three years.

That's measurements and whatnot, you know, so you cut in the rails, for example, plug rails, or track inspect, things of that nature.

Q. Right. Do you find these courses helpful?

A. Yeah. Some of them are refreshing. Like I say, I've been in the welding roster for a long time. Obviously, the foreman stuff is just second nature after you've done it so much, but, like, the TI stuff -- I've never been a track inspector, but you've got to hold tier 3 to track inspect, and you definitely lose some stuff if you don't -- because you don't do it. Like, you want to go shoot a thermite? Let's get 40 minutes and I'll show you how to do it real quick. You want to go track inspect, I better get some books out, which I do have all those in my truck, just if it was to come up.

Q. If you -- if a new piece of equipment is introduced, is developed, and they want you to use it, how -- what's -- does that ever happen in your time?

A. Yeah. They tried the air propane and it was garbage, and then we went away from it. It was just more headache than anything, but they did do training on it.

Q. Yeah. How about -- if you can just discuss what type of training.

A. They -- it's (indiscernible) and everything, and it's kind of a pain-in-the-butt to be honest because you've still got to pull out your torch to preheat the rail and do all that, and then

you've got to pull out the other hose to hook it up and you're kind of doing everything twice. But when I did thermite, it was just kind of getting introduced then, and then we, obviously, did the training with that when we do welding recall too.

Q. Just curious, in your daily operations, do you come across some things, some challenges that you haven't seen before?

A. Not really, because when you cut in -- like, switch point and stock rail, I would say, is going to be the biggest one, when they cut them in backwards and you've got to roll the stock rails out. Come-along switch points to shoot stock rails, knock (indiscernible) off. You're getting an hour-and-a-half shot so you get to do it four times because there's four welds. I mean, just stuff like that, but normally you can make a phone call and there's enough guys out here that have probably seen it if you haven't seen it, so you can pre-job prior to getting your time. Hey, this is what I'm looking at, what have you done, whether it's go pound (indiscernible) stakes in over here so you can jack that stock rail over because somebody else already welded so now you can't get to the other end, you know, so you can weld the switch point, stuff like that.

Q. And the area where the derailment occurred, is there any -- in your experience, is there anything particularly unusual about that area, from your perspective?

A. No. I just remember -- I don't remember if it was 2013, 2014, there was another derailment right in there in December, in

that general area.
Q. Do you recall the nature of that?
A. I don't. I just -- I know we were out there welding the panels together.
Q. Great, thank you.
MR. LLOYD: Troy Lloyd, NTSB. Steve hit on some good stuff, anything unusual about the derailment area.
BY MR. LLOYD:
Q. You were doing your welding, your adjustments and stuff at night out there, right?
A. That's correct.
Q. When you was out there working, did you notice anything unusual? Did you see that this track might have been, maybe, moving laterally, where you could see the cupping on the end of the ties? You never seen any movement of the track, like --
A. Nothing, like --
Q. -- anything (crosstalk).
A. -- out of the -- you know, nothing out of the ordinary.
Q. Yeah. Do you look at -- before you do your welds, do you look at, like, anchor patterns to see if it's consistent, and see if they're tight up against the ties --
A. Yeah.
Q. -- so we can keep that --
A. And then we do have -- like, even on the plug rail, you've got to go the length of the plug rail on each side, snug up your

anchors.
Q. Okay. How would -- so it all works in relation, you do your adjustment, I've still got to have a good anchor pattern, I still got to have a good ballast section, which (indiscernible). How would you describe where you did the welds around that plug when you had (indiscernible)? I think you went off there. How would you describe the ballast section within that curve area?
A. I honestly can't really remember. We were shooting four welds a night for months.
Q. All right.
A. So, I mean, to be honest, I really don't.
Q. If you see something -- if you're working on a track, you know, ballast section's not the greatest, crib ballast is not the greatest, you're seeing some missing anchors, anchors inconsistently installed, do you have the obligation to reach out to the yard master, to the track inspector of that area, maybe to Matt or somebody and go, hey, you know, we're out here welding but it's not the greatest -- the ballast section's a little bit shallow, this, that and the other? Do you have that obligation to do that?
A. Yes, we do. We do it all the time actually.
Q. So you do --
A. There's been lots of locations where we've brought it to their attention, but one, right off the top of my head -- I know it's outside of the derailment, but, like, 364. We were like,

holy cow, and, I mean, then the sections come out, start banging on anchors.

Q. Did you report anything out there when you were welding? Anything -- hey, you might want to look at this, you might want to look at that, or --

A. Not that I recall, no.

Q. Did you notice any type of -- when you were welding right near that plug, did you notice any alignment, any surface deviation or anything in that area that you maybe could put your eye on?

A. No.

MR. LLOYD: I'm good. Blain?

MR. LUCK: Blain Luck, FRA. Sorry, I have one more. I'm going to piggy-back a little bit.

BY MR. LUCK:

Q. You did say you used the pull chart?

A. Yes.

Q. So when you cut the rail initially, and I'm talking about -- so the thermite ones that you did out there you would consider to be a destress or an adjustment, right?

A. Correct.

Q. So when you cut the rail and you record the gap, you go to your pull chart, and you're essentially determining what the rail's neutral temperature was there at that time?

A. I'm determining if the rail did what it was supposed to do at

the temperature.
Q. Do you actually then know -- okay. Your rail installation temperature, or your desired neutral temperature is 95 degrees, correct?
A. Yes.
Q. So do you do that calculation to figure out, well, our desired neutral temperature is 95, but when I cut the rail, I can figure out that the actual temperature is such-and-such?
A. Right. No. I'll go 95, whatever my temperature is, (indiscernible) and if -- inch-and-a-half. So the rail should open at inch-and-a-half, and that's saying that if the temperature increases to 95 degrees, it's going to be (indiscernible) at 95 degrees if it gaps an inch-and-a-half at 46.
Q. So but what -- the gaps created does tell you what temperature it actually was, right?
A. Yes.
Q. Did you make that determination when you cut those rails of what the temperature was there or what the temperature was at this one?
A. No, I shoot the rail temp and go to my pull chart. That's how I determine what I need to do.
Q. So the question, I guess, I'm trying to get to is you have a plus and minus 20 degree safe range to restore that back to. Are you determining that you did that when you're done with your weld? Are you the one doing the calculation, or do you just put the

numbers in the system and that's it?
A. I'd be -- if I was to add the rail, because I don't -- I'm not -- I'm just going down and over, seeing what the rail should be doing, and then I'm taking an inch, because everything we do, they want another inch taken.
Q. Okay.
A. And obviously, if it didn't do what it should've done, then we would take more rail.
Q. So do you understand why you're taking another inch?
A. Just to ensure the safety of the rail, I would assume.
Q. So you're essentially elevating the rail temperature --
A. Yeah. I understand that. You're moving it up to 105, 108 roughly. It's --
Q. Yeah. You're --
A. -- (indiscernible).
Q. That's your goal is to err on that side?
A. Correct.
Q. All right.
A. Which (indiscernible) the temperature swings. You know, it could be greater and we're still going to be safer from the misalignment. I get that part. I was -- I thought you were, like, trying to figure out the exact -- I was like, well, no, it's going to make it greater. Instead of having a 95, we're moving it to 105, 110, you know what I mean?
Q. Yeah. So you're pretty confident then when you're done with

your welding, you walk away?
A. Yes.
Q. You know what state that rail's in at that time?
A. Yeah. I know it can get to, like, 110 degrees out and that's -- it's going to stay straight.
Q. That's what I --
A. Sorry, I was misunderstanding.
Q. Nope, thank you.
MR. LIGON: Quinn Ligon. I have no further questions.
MR. ANDERSON: Todd Anderson.
BY MR. ANDERSON:
Q. I was wondering if you could clarify the, like, BNSF, FRA requirements for you to get tier 1, tier 2 and tier 3.
A. Yes.
Q. Could you clarify that for the record on the qualifications and whose standards those are?
A. Tier 2 -- for, like, job positions?
Q. Yeah.
A. So Tier 2, you can be a track foreman, you can be a welder. You have to have tier 3 qualification to be a track inspector.
Q. Tier 3 would just be track inspector and welding?
A. That's correct.
MR. ANDERSON: That's all I had. Thank you.
MR. MORRISON: Roy Morrison. I don't have any questions.
MR. HAMMOND: Matt Hammond with BNSF. I do have a couple

clarifications that I'd like to get, Josh.

BY MR. HAMMOND:

Q. So on your annual training, do you get annual Maintenance Way Operating Rules training as well?

A. Yes.

Q. Okay. Thank you.

I'm now going to switch back to the pull chart that you referenced.

A. Yes.

Q. And I want to clarify and -- you're understanding what the pull chart is for. So earlier, you talked about rail neutral temperature and a target neutral temperature, and we have a desired state of 95 degrees; is that correct?

A. That's correct.

Q. Would you consider that pull chart as a cheat sheet form to be able to tell if you know the rail temperature, and you know the gap, but that pull chart helps you make the calculation in the field of what the actual neutral temperature was at the time of the maintenance?

A. Correct.

Q. And then based on what it tells you, does it then kind of tell you what to do in order to set it to a specific range?

A. It definitely guides you to the range that you need, and every welding truck has one on the back of it.

Q. Okay.

A. And that's what we -- we open up our torch. We've got a chart, it's about this big. You can go to any welding truck (indiscernible) and go open the door and it'll be right there.
Q. So that lets you have confidence that you know what the actual rail neutral temperature at the time you leave is in the track, correct?
A. Correct.
Q. Thank you, sir.
MR. HAMMOND: No other questions.
MR. NAGEL: Robert Nagel with Amtrak. I do have a kind of follow-up question.
BY MR. NAGEL:
Q. I'm curious on your markings -- your marks when you do do a full destress, how far those -- you go out in those because you're pulling, like, 200 feet each direction or 400 feet each direction for destressing. Your match marks, how far and how -- what's the spacing of those match marks?
A. Okay. Yeah. So your pullers are only good -- they're rated to pull 400 feet. Once you knock more than 400 feet, you're not doing any justice having anything off. That's what they're rated for. So when we go to a location and we're doing full out destress, the first thing we do is make our match marks. We make them at 12 feet. That's what -- well, I make them at 12 feet. You knock everything, and then you cut your rail. You can see what it does. Say it blows open 3 inches, now you're at 12 feet 3

inches. It should open 2 inches. So, well, no we know it's technically over destressed, because it's blowing open farther than it needed to. But we'll still take that -- so now we're going to cut 2 more inches. So now you have a 5-inch hole because we've got 1 inch for our weld. So then we're going to pull that back together, shoot our weld, and now when you measure it, it should measure 11 feet, 11 inches, showing that you're under your match marks, removed another inch still, which would move your temperature from the 95 to a higher.

Q. Thank you.

MR. NAGEL: I have nothing else.

UNIDENTIFIED: No questions, thank you.

UNIDENTIFIED: No questions.

MR. LLOYD: I don't have anything. I'd just like to end on a note for the interviewee.

BY MR. LLOYD:

Q. Josh, anything out there that you see as welders, track inspection, track maintenance that could be better? I mean, the ones out there, the boots on the ground, (indiscernible), man, this -- it could be easier or be better if we do it this way. Do you ever run into that, or see anything like that, maybe within your welding --

A. I think we do, but I think when it gets addressed -- I mean, it definitely moves up the line, and there's obviously -- this is the bucket that you're working out of; we've got to prioritize. I

think, especially in the last three or four years, we've definitely done a lot of improvements I think.

Q. Are you confident in your job?

A. Yeah.

Q. Do you think you do good at it? BNSF procedures, the right thing -- to tell you the right thing to do and all that?

A. Yeah, for the most part, I'd say so, yeah.

MR. LLOYD: I'm done. Going around the horn. Blain?

MR. LUCK: I could probably talk to him all day.

MR. LLOYD: What's that?

MR. LUCK: I could probably talk to him all day, keep picking his brain.

BY MR. LUCK:

Q. But I will go back to that blow-out that you had. Do you guys have blow-outs regularly?

A. No.

Q. So it's very rare.

A. That was my grinders third weld he's ever shot.

Q. And it happened to be in this curve?

A. Yes.

Q. So when you corrected it, you cut the weld you just did out --

A. Yes.

Q. -- and you pulled it together again?

A. Yes, with a new rail.

Q. Did it -- did that affect your reference marks, your match marks? Did they -- was it restored to what you believe it was going to be restored to?
A. Yes.
Q. So you didn't --
A. We made 25-foot match marks prior to cutting.
Q. So you didn't take out a little bit more just for the correct?
A. We did take out a little bit more.
Q. Just a little bit. What's a little bit?
A. We took another half-inch.
Q. So is it fair to say what's on the rail on that weld isn't quite accurate or it's off by a half-inch?
A. Well, we had to relabel the weld. So that weld's nothing now. It's like starting over because I'm cutting the weld out of the track, you know what I mean? I can't put that weld in because it's not in the track so I have to put two new welds in the track.
MR. LUCK: No more questions.
MR. LLOYD: (Indiscernible)?
UNIDENTIFIED: No more.
MR. LLOYD: Todd?
MR. ANDERSON: I'm good. Thanks, Josh.
MR. McCRACKEN: You bet.
UNIDENTIFIED: No more, thank you.
MR. LLOYD: Matt?

MR. HAMMOND: Matt Hammond, BNSF. I do have one more, Josh.

BY MR. HAMMOND:

Q. So, in this location, did you say 25-foot match marks?

A. I believe that's what it was. I'd have to look.

Q. And that's your approximation?

A. Yes.

Q. And are those 25-foot match marks still in place to your knowledge right now? The original 25-foot match marks after you had to re-do your weld?

A. I don't know that.

Q. Okay.

A. I don't know if that's -- got taken out.

Q. That's fair. But I'm trying to think through -- the reason I'm asking this is if you were -- you had your original match marks down and they go beyond where you were working and you had the fail weld and there's now a plug rail being cut in, were you still able to reference your original match marks?

A. Just -- so yeah. On that -- originally, we were going there to do the welds in front, so it was just going to be the one straight across. So I had 12-feet match marks on the weld that blew out. So then the second had to come, make new match marks for the plug rail, and that's what we go --

Q. Thank you. That really helps. So --

A. Sorry about that. Yeah. So I had my marks for my original weld prior to the blow-out, and then now there's a plug rail

getting cut in, just like there was a defect, because now there is a defective weld in the track. So then they have to make the new match marks to cut the rail out to adjust that, the plug rail that was cut in.

Q. So with the new match marks, which is now a completely different process, you have a gap that you can observe on the rail and you can measure your rail temperature with the new match marks in place. Do the tools allow you to make an accurate determination of the rail neutral temperature and do your work after the plug rail was installed?

A. Yes.

Q. Thank you, sir.

MR. NAGEL: Robert Nagel, Amtrak. Follow-up question.

BY MR. NAGEL:

Q. Talking about plug rails, there was an existing plug rail that's out there that is in the track. Did you have any issues with that? Was it close to where you were welding or anything like that? It was, I believe, on the north rail.

A. I'm not sure that was there when we did -- when we were going through in front of the tie gang, and that's still there because it's got to get replaced. It's unshootable due to batter.

MR. NAGEL: No further questions. Thanks.

MR. RINGELMAN: Ryan Ringelman. No questions. Thanks for your time.

MR. JENNER: Steve Jenner. No questions.

MR. LLOYD: Thanks.

I'm just going to ask you some generic questions.

BY MR. LLOYD:

Q. So you get a leaker and you got to cut that weld out; what's the process? What's -- you're getting a lot of heat generated in there. When you thermite weld you get this leaker. It ain't like we go back to the clay days where we used to ball it up on a sledge hammer and slam it in there to try to keep it (indiscernible). It's hard to do it from the base plate when it starts leaking from under there. But what do you cut out? So if we get a leaker, how much do I have to cut out to make sure I'm not getting --

A. It's 6 inches each way, but we just call a section because I can't pull 12 inches. I can pull 6-and-a-quarter if it's nice out.

MR. LLOYD: I'm good. Around the horn. Blain?

MR. LUCK: Blain Luck, good.

MR. LLOYD: All right.

MR. LIGON: Quinn Ligon, good.

MR. LLOYD: Todd?

MR. ANDERSON: I'm good.

MR. LLOYD: Roy?

MR. MORRISON: Good.

MR. LLOYD: Matt?

MR. HAMMOND: No further questions.

MR. LLOYD: Amtrak?
MR. NAGEL: No further questions.
MR. LLOYD: Ryan?
MR. RINGELMAN: Nothing.
MR. LLOYD: Steve?
MR. JENNER: No questions.
MR. LLOYD: All right. Hey, Josh. I appreciate your help.
MR. McCRACKEN: Thanks, guys.
MR. LLOYD: (Indiscernible). We are off the record.
MR. McCRACKEN: You guys have a great day.
(Off the record.)
(On the record.)
MR. LLOYD: Real quick we're back on the record with Josh McCracken, Head Welder, BNSF. Blain Luck from the FRA has one follow-up question.
MR. LUCK: Blain Luck, FRA.
BY MR. LUCK:
Q. Follow-up question is the blow-out weld, the leaker weld, was that on the high side or the low side?
A. It was on the low side.
Q. Was that on the east end or the west end?
A. West end -- excuse me, east end.
Q. East of the curve?
A. Yes.
Q. At the spiral?

A. It should've been right outside, right --
Q. But in close proximity --
A. Yes.
Q. -- then to the switch?
A. No.
Q. How far up would you estimate from the switch?
A. I really couldn't tell you. Like --
Q. It was not in the solid anchor -- it wasn't solid anchored through there -- that location, or was it?
A. I don't believe it was. I'd have to look.
Q. No further questions.
A. I really don't remember.
Q. Okay. I'm good.
A. I remember it was the east end though.
Q. Okay. East end of lower rail?
A. Yeah.

MR. LLOYD: All right. Off the record again. Thank you.

MR. McCRACKEN: Thanks.

(Whereupon, the interview was concluded.)

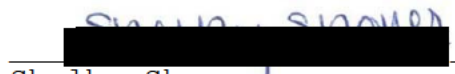
CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL AMTRAK DERAILMENT NEAR JOPLIN, MONTANA ON SEPTEMBER 25, 2021 Interview of Josh McCracken
ACCIDENT NO.:	RRD21MR017
PLACE:	Via Telephone
DATE:	September 28, 2021

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.



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