BROTHERHOOD OF LOCOMOTIVE ENGINEERS AND TRAINMEN

A DIVISION OF THE RAIL CONFERENCE

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

BEFORE THE NATIONAL TRANSPORTATION SAFETY BOARD

NTSB Accident Number RRD23LR003

Class: Regional

December 13, 2022

Proposed findings, probable cause, and safety recommendations in connection with the Norfolk Southern Railway ("NS") employee fatality that occurred during mainline operations while passing a standing train near Bessemer, Alabama on December 13, 2022.

L.R. Fannon, BLET Safety Task Force, National Chairman
D.P. Wyatt, BLET Safety Task Force, Party Spokesman

Final Submission

The Brotherhood of Locomotive Engineers and Trainmen (“BLET”), a division of the International Brotherhood of Teamsters (“IBT”), was assigned party status by the Board in the above-referenced investigation. BLET respectfully submits these proposed findings, probable cause, and safety recommendations to the Board for consideration.

Accident Synopsis

On December 13, 2022, at approximately 12:01 a.m. Central Standard Time (“CST”) [1], a northbound Norfolk Southern (“NS”) mixed freight train (A55-A7-12) was struck by equipment protruding from a stationary train (340-A7-12) that was on an adjacent track. The A55-A7-12 consisted of seventy (70) railcars and was 3,742 feet in length, with a weight of 3,046 tons.

As a result of the accident, the Conductor Trainee (“CT”) that was riding within the operating cab of the lead locomotive of the A55-A7-12 (NS 6301) was fatally injured.

Figure 1 – Post-accident photos of the NS 6301 (*Photos courtesy of NTSB*)

[1] All times throughout the report will be Central Standard Time.

Accident Narrative

Train Information:

Train A55-A7-12 (Striking Train):

The A55-A7-12 originated in Tuscaloosa, AL, and was operating to Birmingham, AL, with a final destination of Tuscaloosa, AL. The train consisted of two (2) locomotives positioned on the front of the train, with the NS 6301 as the controlling locomotive. The train consisted of eight (8) loads and sixty-two (62) empties, for a total of 70 railcars. The train weighed 3,046 tons and was 3,742 feet in length.

Train 340-A7-12 (Stationary Train):

The 340-A7-12 originated in Meridian, MS with a final destination of Birmingham, AL. The train consisted of two (2) locomotives, with the KCS 4809 positioned on the front of the train as the controlling locomotive. The NS 1231 was positioned on the rear of the train and was being utilized as a Distributed Power Unit ("DPU"). [2] The train consisted of forty-eight (48) loads and thirty-six (36) empties for a total of eighty-four (84) railcars. The train weighed 7,242 tons and was 5,414 feet in length.

Method of Operation:

When the accident occurred, the trains were operating on the Alabama Great Southern ("AGS") Subdivision [3] in Centralized Traffic Control ("CTC") [4] territory. The AGS Subdivision extends from milepost ("MP") AG 136.8 near Birmingham, AL, to MP AG 295.4 near Meridian, MS, in a north-south direction and is part of the NS Alabama Division. The AGS Subdivision consists primarily of single Main Track, with small portions of multiple Main Tracks, with multiple passing sidings. The entire AGS Subdivision has active Positive Train Control ("PTC") [5] that assists in the movement of train traffic.

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[2] The term "Distributive Power Unit" is a term referring to the physical distribution of locomotives at intermediate points throughout the train. The distributed locomotives are remotely controlled from the controlling locomotive.
[3] *See* Appendix A at the end of this report for relevant sections of the NS timetable.
[4] "Centralized Traffic Control" is a signaling system that uses block signal systems to authorize train movements.
[5] "Positive Train Control" is a system designed to prevent certain train collisions, overspeed incidents, incursions into established work zone limits, and the movement of a train through a Main Track switch in the improper position.

At the location of the incident (MP AG 153.6), there are two (2) main tracks with a maximum authorized speed ("MAS") of sixty (60) miles per hour ("MPH").

All train movements on the AGS Subdivision are coordinated by the NS Train Dispatcher, who is located in Atlanta, Georgia.

Norfolk Southern Railway Documents for TY & E [6] Employees:

Below is the list of the documents governing TY & E employees provided by NS for this accident investigation:

- NS Alabama Division Timetable No.1 – *effective March 18, 2018*
- NS Operating Rules – *effective January 1, 2019*
- NS Safety and General Conduct Rules – *effective January 1, 2019*
- NS -1 – *effective January 1, 2019*

No additional information was provided regarding the documentation and/or rules in effect at this time of this accident.

Train Crew Information:

Between December 12, 2022, and December 13, 2022, there were two (2) separate NS train crews that handled the suspect railcar (SSEX 100843) that had a protruding piece of angle iron extending above and beyond the car body. Both train crews dealt directly with the SSEX 100843 prior to it being damaged.

A39-A7-12 Train Crew (Initial Train):

The "initial train" that handled the damaged SSEX 100843 was the NS A39-A7-12, which went on duty at 9:00 a.m. at McCalla Yard in Birmingham, AL on December 12, 2022. This train crew consisted of a Locomotive Engineer, Conductor and Conductor Trainee. As part of their duties for the shift, the train crew removed nineteen (19) total rail cars (which included the SSEX 100843) from the U.S. Pipe & Foundry industrial track and placed them in position on the "Hill Track" to be picked up in Bessemer Yard by an approaching train.

[6] Train, Yard, and Engine

Locomotive Engineer:

The Locomotive Engineer began his employment with NS in 1992 and was certified to become a Conductor in 1996. He was subsequently promoted to the position of Locomotive Engineer in 1998. He had no medical condition that would affect his performance and was deemed fit for duty.

Conductor:

The Conductor began his employment with NS in 2008 and was certified to be a Locomotive Engineer in 2016. He was demoted to Conductor in 2020 and has worked as a Trainman since that time. He had no medical condition that would affect his performance and was deemed fit for duty.

Conductor Trainee:

The Conductor Trainee began his employment with NS in 2022 and was certified to be a Conductor in 2023 and was completing his training at the time of the accident. He had no medical condition that would affect his performance and was deemed fit for duty.

340-A7-12 Train Crew (Stationary Train):

The NS 340-A7-12 was the second train crew to handle the damaged SSEX 100843. This train crew consisted of a Locomotive Engineer, Conductor and Conductor Trainee. The train crew went on duty at 5:45 p.m. in Meridian, MS on December 12, 2022. The train crew was traveling northbound on Main Track No.1, and stopped to add twenty-one (21) rail cars that were in the "Hill Track" to their train consist to take to Birmingham, AL. After adding the twenty-one (21) railcars to their train, the 340-A7-12 remained stationary on Main Track No. 1 prior to the impacting incident.

Locomotive Engineer:

The Locomotive Engineer began his employment with NS in 2005 and was certified to become a Locomotive Engineer in 2008 and has worked in that capacity since that time.

He utilizes corrective lenses for visual acuity, had no medical condition that would affect his performance, and was deemed fit for duty.

Conductor:

The Conductor began his employment with NS in 2014. He utilizes corrective lenses for visual acuity, had no medical condition that would affect his performance, and was deemed fit for duty.

Conductor Trainee:

The Conductor Trainee began his employment with NS in 2022 and was certified to be a Conductor in 2023 and was completing his training at the time of the accident. He had no medical condition that would affect his performance and was deemed fit for duty.

A55-A7-12 Train Crew (Striking Train):

Lastly, the NS A55-A7-12, reported for duty at 8:00 p.m. in Tuscaloosa, AL on December 12, 2022. The train crew was traveling northbound on Main Track No. 2 and were enroute to Birmingham, AL at the time that the accident occurred.

Locomotive Engineer:

The Locomotive Engineer began his employment with NS in 1997. He was certified to become a Locomotive Engineer in 2000 and has worked in that capacity since that time. He had no medical condition that would affect his performance and was deemed fit for duty.

Conductor:

The Conductor began his employment with NS in 2014 and was certified to be a Conductor in 2015. He had no medical condition that would affect his performance and was deemed fit for duty.

Conductor Trainee:

The fatally injured Conductor Trainee began his employment with NS in 2022 and was completing his training at the time of the accident. He had no medical condition that would affect his performance and was deemed fit for duty.

Movements of Involved Trains:

Train A39-A7-12:

The NS A39-A7-12 train crew reported for duty at 9:00 a.m. on December 12, 2022, at the NS depot in McCalla Yard which is located in Birmingham, AL. As part of their daily duties, the train crew is responsible for servicing multiple industrial facilities in the area surrounding Bessemer, AL. After obtaining all the required paperwork, and departing Birmingham, AL, the A39-A7-12 arrived in Bessemer, AL at approximately 11:30 a.m. The train crew had instructions to service the U.S. Pipe & Foundry [7] industrial facility. Once the train crew gained access by rail to the industry, the train placed loaded railcars for delivery to the facility and gathered nineteen (19) empty railcars from the facility to be removed.

During interviews conducted after the accident, the Conductor of the A39-A7-12 stated that while at the U.S. Pipe & Foundry industrial facility, he and his CT walked "side-by-side" performing their pre-inspection (focusing on air hoses, brake rigging, wheels, handbrakes, etc.) [8] on the nineteen (19) empty railcars. They made no note of any defects or damage. To depart from this point, the crew followed the same steps taken to enter the facility, with one exception. All cars pulled from the industry could not be removed from the facility at once. The railcars had to be "doubled out" [9] due to available track space ahead of the lead locomotive. After completing this "double out" movement, the train crew utilized a bypass track in order to place their lead locomotive on the opposite end of the railcars for movement back to Bessemer, AL.

[7] U.S. Pipe & Foundry is a facility located in Bessemer, AL that offers a complete range of Ductile Iron Pipe, Restrained Joint Pipe, Fabrication, Gaskets, and Fittings, along with other products for the water and wastewater industries.
[8] *See* Appendix B at the end of this report for applicable NS rules governing required inspections when adding railcars to a train.
[9] The term "doubled out" refers to when a group of railcars is to be moved by making multiple movements, effectively changing the standing order of that block.

Figure 2 - Photo of damaged railcar SSEX 100843 as it was moved between U.S. Pipe & Foundry industry track and "Hill Track" *(Photo courtesy of NTSB)*

The track from the U.S. Pipe & Foundry industrial facility enters directly into the rail yard at Bessemer, AL at a point known as the "Hill Track". This section of track is the standard location at which railcars are left to be added to oncoming trains. After leaving the railcars on the "Hill Track", train A39-A7-12 departed the yard at Bessemer, AL to continue their daily work enroute back to McCalla Yard in Birmingham, AL.

Train 340-A7-12:

The NS 340-A7-12 train crew reported for duty at 5:45 p.m. at the NS depot in Meridian, MS. As part of their trip duties, the train crew is responsible for movements of mixed freight traffic between Meridian, MS and Birmingham, AL. This includes removing and adding railcars at customers facilities enroute. On December 12, 2022, the train crew of the 340-A7-12 received instructions to add a total of twenty-one (21) railcars to their train in Bessemer, AL.

The 340-A7-12 arrived at Bessemer Yard at approximately 11:15 p.m. The train was operating in a northbound direction and was traveling on Main Track No. 1. The train crew secured their train and separated their lead locomotives from the remainder of their train and moved in a northbound direction to gain access to the "Hill Track" to pick-up the twenty-one (21) railcars. When adding the twenty-one (21) rail cars to their train, the train crew would be required to inspect the rail cars prior to adding them to their train in accordance with NS Rule C-100 and the Code of Federal Regulations ("CFR") Title 49, Part 215, Appendix D (Pre-Departure Inspections). [10]

After lining these switches for their intended route, they reversed direction into Bessemer Yard and proceeded to the "Hill Track". This is the standard location for retrieving cars at this point, and because of this, the train crew stated in post interviews, they were familiar with the location and its hazards. The "Hill Track" does not provide for safe walking conditions while in the performance of pre-inspection or brake inspection. With this in mind, the train crew moved the twenty-one (21) rail cars back to Main Track No. 1 and added them to their existing train. This is the normal operating procedure for trains picking up at the "Hill Track" while operating in a northbound direction. [11] This procedure is permitted under 49 CFR § 215.13, which specifically states, *"At each location where a freight car is placed in a train, the freight car shall be inspected before the train departs. This inspection may be made before or after the car is placed in the train."* In adherence with this regulation, and after achieving sufficient brake pipe pressure to the rear of the train, the Conductor and CT walked the west side of the newly added railcars. As they inspected the railcars, they walked toward the lead locomotive, inspecting for defects and braking functionality.

While the train crew was performing the inspection of the west side of the railcars, radio communications were broadcast warning them of the approaching train A55-A7-12, which was operating on Main Track No. 2. Considering personal safety, the train crew could not continue their inspections on the east side of the rail cars, because it was the same side of railcars as the approaching train on Main Track No. 2. Therefore, the Conductor and CT took the opportunity to board the lead locomotive and report the work that they had performed. At this point, no one on the crew of the 340-A7-12 had observed the east side of the newly added railcars from the "Hill Track" because of the approaching train on Main Track No. 2. Almost immediately after boarding the lead locomotive, the passing train was issuing an "emergency" radio transmission after striking a piece of equipment protruding from the east side of SSEX 100843, which was included in the cars retrieved from the "Hill Track".

[10] *See* Appendix C for Code of Federal Regulations ("CFR") Title 49, Part 215, Appendix D (Pre-Departure Inspections).
[11] See Appendix D for applicable parts of CFR Title 49, § 215.13 which permits these procedures.

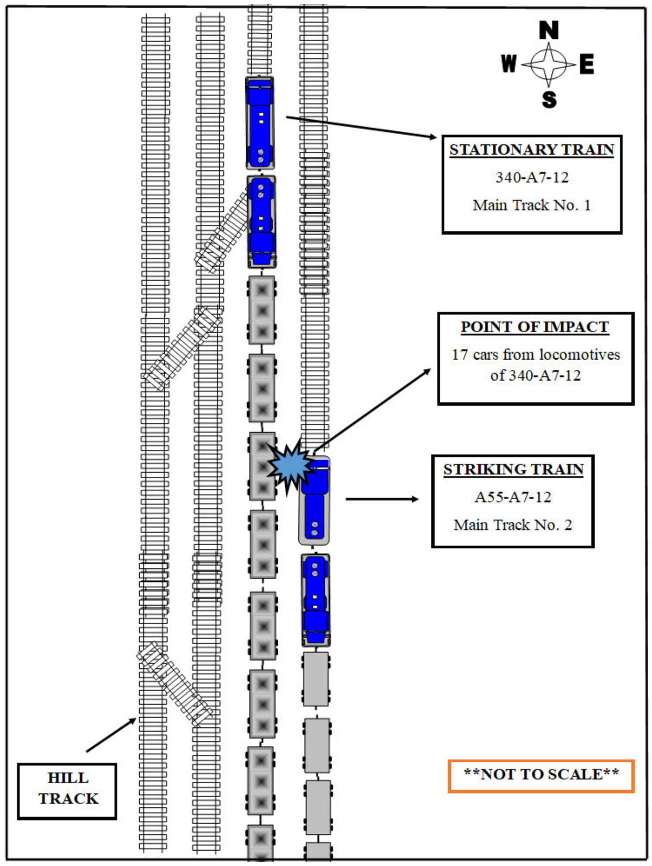

Figure 3 – Schematic of accident *(Courtesy of BLET)*

Train A55-A7-12:

On December 12, 2022, the NS A55-A7-12 train crew reported for duty at 8:00 p.m. at the NS depot in Tuscaloosa, AL. As part of their regular trip duties, the train crew is responsible for movement of freight traffic between Tuscaloosa, AL and Birmingham, AL. These responsibilities include adding and removing railcars enroute, with a final destination of Tuscaloosa. AL.

Train A55-A7-12 departed Tuscaloosa, AL at approximately 10:00 p.m. and reported no abnormal incidents on their trip prior to the accident. Upon approaching Bessemer Yard, they were diverted to Main Track No. 2 at the Burstall Control Point to pass train 340-A7-12. The train was traveling at fifty-four (54) MPH and moving under a "Clear" [12] signal indication as they approached the 340-A7-12, which was standing still on Main Track No.1.

[12] A "Clear" signal indication authorizes the train to proceed at maximum authorized speed. *See* Appendix E at the end of this report for applicable NS rules regarding signal indications.

Figure 4 – Photo showing approximate locomotive seating positions. These seating positions would be similar to those inside the cab of the lead locomotive, NS 6301 (*Photo courtesy of Google search*)

While traveling northbound, the west side of the lead locomotive operating cab was closest in position to Main Track No. 1 and the standing train 340-A7-12. Observing the track ahead, the A55-A7-12 Locomotive Engineer noticed an object protruding from one of the railcars of the 340-A7-12. The Locomotive Engineer instantly called out a verbal warning to his crew members. Immediately after his verbal warning, impact with the obstruction occurred. At 12:01:11 a.m. a large piece of angle iron entered the lead locomotive operating cab through the window of the front door. This angle iron struck the CT in the upper chest, propelling him toward the rear of the cab and into the Conductor and finally stopping after piercing the rear electrical cabinet on the locomotive's back wall.

The electronics damage to the lead locomotive caused a loss of power as well an emergency application [13] of the train air brakes. The Locomotive Engineer voiced an "Emergency" broadcast over the radio and immediately began calling the Train Dispatcher for assistance. At 12:01:55 a.m. the train came to a complete stop after travelling 1,876 feet with the emergency brakes applied. The Locomotive Engineer began relaying information to the Train Dispatcher and requested emergency response personnel to the scene. The Locomotive Engineer requested permission from the Train Dispatcher to reverse his train to the 32nd Street public road crossing, to allow easier access for the emergency personnel when they arrived at the scene. Train A55-A7-

[13] "Emergency Brake Application" refers to the emergency application of a train's air brakes. Emergency application of the brakes is caused by a rapid exhaust of the train's brake pipe air system. This action results in maximum braking effort on a train.

12 came to a final stop at the 32nd Street public road crossing at 12:07:27, after traveling southbound for 699 feet. The Locomotive Engineer notified his immediate supervisor of what had occurred at approximately 12:09 a.m. The Locomotive Engineer then made a second call to the Train Dispatcher at 12:13 a.m., seeking emergency services. It was during this conversation that first responders arrived on-site to render aid.

Locomotive Event Recorder evaluation:

As part of the investigation, the locomotive event recorder data was reviewed from the lead locomotive of train A55-A7-12:

TIME (A.M.)	ACTIONS
12:01:05	Tractive effort abruptly stops on locomotive
12:01:06	Locomotive Engineer begins sounding horn
12:01:11	An emergency application of the train's brakes occurs while train is traveling at 54 MPH.
12:01:55	Train comes to a stop
12:02:19	Locomotive Engineer places automatic brake handle in the emergency position
12:03:00	Locomotive Engineer moves automatic brake handle into the release position
12:05:10	Train begins a movement in the opposite direction
12:07:27	Train stops at 32nd Street public road crossing to await emergency personnel

Railcar Information:

The railcar that was involved in the accident (SSEX 100843) had a completed build date in September of 1976. Originally identified as JTSX 100843, it was destined for David J. Joseph Transportation Systems. After over three (3) decades in active rail service, this piece of equipment was sold to Schnitzel Steel Industries and rebranded with the SSEX moniker. This railcar was designated as a "gondola" with high sides and ends, a flat bottom, a body material of standard steel, and an interior not lined with additional protective coating. According to the Universal Machine Language Equipment Register ("UMLER"), as reported via the Equipment Management the railcar in question has a "do not load past" date of August 2, 2026.

Open-topped gondolas, such as the SSEX 100843, may engage in the hauling of any number of commodities. Though these materials may vary, the loading (and often unloading) process is performed from above, using unprecise and often brute methods.

Figure 5 – Photos showing two different types of crane operations used to load scrap products into open-topped gondolas
(Photos courtesy of Google search)

Additionally, regardless of the material being placed within, the product must be dropped from above, by whatever means necessary, as that is the only access point for loading into the railcar's interior. This action, of course, increases outward pressures upon the car body, as the materials make an impact. In many instances, the only point of egress for what is placed within the car is also from above. Scrap metal materials must be removed by heavy equipment, either scooping, grabbing, or scraping the pieces from their resting positions.

This process is in no way precise and could lead to repeated impacts on the sides and ends of the railcar. Because of this, often the railcars are reinforced with angle iron that is welded along the tops of the sides of the railcar's body.

Figure 6 – Photos showing an open-topped gondola with angle iron welded along the top of the railcar's sides for reinforcement. *(Photos courtesy of BLET)*

During loading or unloading operations, this type of angle iron reinforcement can become dislodged or damaged. Angle iron reinforcement was utilized on railcar SSEX 100843 and was damaged while unloading scrap iron at U.S. Pipe & Foundry on December 7, 2022.

Figure 7 – Photo of damaged railcar SSEX 10843 (*Photo courtesy of NTSB*)

Post Accident Actions:

After the accident, the Federal Railroad Administration ("FRA") distributed Safety Bulletin 2022-01 [14] publicly and to all rail carriers within the U.S. The subject of Safety Bulletin 2022-01 was "Pre-Departure Inspections – Appendix D to 49 CFR Part 215".

Safety Bulletin 2022-01 gave a brief synopsis of the accident that occurred in Bessemer, AL on December 13, 2022, and was intended to provide immediate awareness to the entire rail industry that an accident had occurred and to provide key information to brief and/or train employees.

Additionally, Safety Bulletin 2022-01 contained the following language:

> *"Specifically, in this Safety Bulletin, FRA requests that railroads review this Safety Bulletin with its employees to* ***increase awareness of this hazardous condition*** *that led to a fatal injury. FRA also reminds train crew members that when at locations where a person designated under §215.11 is not on duty for the purpose of inspecting freight cars (such as in customer facilities),* ***prior to pulling any cars*** *and only when it is safe to do so, to* ***perform a proper visual inspection of freight cars for any protruding objects that may foul an adjacent*** *track from a railcar, and if observing such a condition to* ***immediately report it****…"* (Emphasis theirs)

Probable Cause

The Brotherhood of Locomotive Engineers and Trainmen conclude that the probable cause of the December 13, 2022, accident at Bessemer, AL was the compromised structural integrity of railcar SSEX 100843. This compromised structural integrity led to a large section of angle iron protruding from the car body and into the path of train A55-A7-12, which was passing on an adjacent track.

There were five (5) significant contributing factors to this accident:

- The damage to railcar SSEX 100843, while in the process of unloading, was not properly reported by U.S. Pipe & Foundry industrial facility personnel to NS. The damage occurred on December 7, 2022, at 3:40 a.m. The protruding steel was seen and visibly noted by a contractor, performing work on behalf of U.S. Pipe & Foundry, later that same day. After being visibly noted, the railcar was then moved

[14] *See* Appendix F at the end of this report for FRA Safety Bulletin 2022-01.

and stored by U.S. Pipe & Foundry personnel to a track within their facility, which was in a highly visible location for the subsequent five (5) days, until December 12, 2022.

- The Conductor on train A39-A7-12 did not discover the damage to railcar SSEX 100843 during the performance of his pre-inspection or brake inspection as required per NS Rule C-100. Despite making multiple moves with the SSEX 100843 and walking the train with the SSEX 100843 in their train consist, the damage was not noted and/or reported.

- Per Subpart A of 49 CFR § 215.13, train 340-A7-12 was permitted to add rail cars to their train consist without first inspecting them for defects. Contributing to this was the known undesirable walking conditions in the location of the "Hill Track" area, therefore, deterring an inspection of the east side of their pick-up.

- Railcar SSEX 100843 had two (2) of the specific defects cited within the Code of Federal Regulations that someone performing an inspection must be wary of is an "object extending from (the) side" and "any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination".

- The approved lifespan of railcar SSEX 100843 was approaching its end, after over forty-six (46) years of service. The hauling of excessively heavy lading, loading, and unloading via brute-force methods throughout its history, led to car body damage and structural defects requiring repair and reinforcement. However, reported mechanical inspections in the prior eight (8) years were solely related to brake components. None pertained to the integrity of the car body itself.

Regardless of whether adjacent railroad tracks lie within a yard terminal, customer facility, or on Main Track, a finite amount of space exists between them. Every bulge on a rail car, every piece of protruding commodity or equipment, and every extruding portion of steel reduces that space and increases the potential for impact. It is the responsibility of all parties (railroad, customer, employee, government agency) to take every possible precaution to maintain that separation and avoid the potential for danger.

Proposed Recommendations

To U.S. Pipe & Foundry:

1. Develop and implement a program (using the circumstances of this accident) to further educate employees and contractors in the following areas: rail safety; potential hazards specific to the industry; and proper reporting of concerns.
2. Identify and implement changes to improve lighting conditions in all areas where regular switching operations occur.
3. Ensure all rail cars are fully inspected and deemed to be safe to move before releasing them to rail carriers.

To Norfolk Southern Railway:

1. Develop and implement a program (using the circumstances of this accident) to further educate train crew employees of their obligations when performing railcar inspections under Appendix D of 49 CFR § 215.
2. Develop and implement a program to ensure rail customers understand rail safety; potential hazards specific to the industry; and how to address concerns.
3. Provide a safe ample walking and working area when crews are to add railcars to their train in the "Hill Track" location so both sides may be inspected without the possibility of injury.
4. Identify and implement changes to improve lighting conditions in all areas where regular switching operations occur.

To FRA:

1. Revise Subpart A of 49 CFR § 215.13 to mandate that railcar inspection be performed **before** a car is placed within a train.
2. Revise 49 CFR §215.121 to include the deformation of a railcar body, beyond specified limits, as basis for removal from continued service.

3. Revise 49 CFR § 215.203 to reduce the approved lifespan of railcars subject to loading and unloading via brute-force methods, to account for the additional stressful forces these specific railcars must endure.

4. Mandate changes to enhance lighting conditions in all areas where regular switching operations occur through all times of day.

CERTIFICATE OF SERVICE

I certify that on July 14, 2023, I have electronically served upon Mr. James Southworth (southwj@ntsb.gov), Investigator in Charge, National Transportation Safety Board, a complete and accurate copy of these proposed findings regarding the December 13, 2022, employee fatality that occurred on the NS as a result of train A55-A7-12 striking protruding equipment while passing a standing train near Bessemer, Alabama (NTSB Docket No. RRD23LR003). An electronic copy of same was also forwarded to the individuals listed below in this certificate of service, as required by 49 CFR § 845.27 (Proposed Findings)

Mr. James Southworth
Investigator-in-Charge, RRD23LR003
National Transportation Safety Board
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Michael Chambliss, FRA
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Investigator – SMART-TD National Safety Team
Email: smarttransportationga@gmail.com

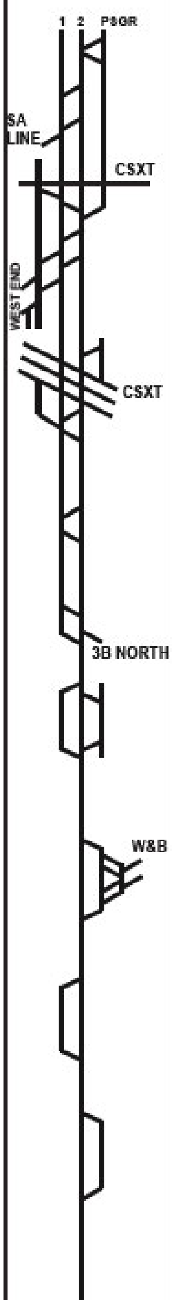
Sincerely yours,

[redacted]

L. Randy Fannon
BLET National Vice President
Safety Task Force National Chairmen
Brotherhood of Locomotive Engineers & Trainmen
7061 East Pleasant Valley Road
Independence, OH 44131

Appendix A

AGS SOUTH DISTRICT



SIDINGS IN FEET	MP	STATION	NOTES
		AGS SOUTH DISPATCHER.. 803	
	792.7 / AG 136.8	20TH STREET.. CP	
	AG 137.5	BRUSSEL... CP	
	AG 139.9	WOODLAWN JCT... CP	
	AG 141.8	32ND STREET.. C	1
	AG 142.0	27TH STREET.. CP	
	AG 143.0	Birmingham (CSXT – Amtrak)	
	AG 143.5	14TH STREET.. C	1
	AG 147.1	HBD-DED *(Mims)*	
	AG 149.3	POWDERLY.. CP	
	AG 151.2	SSD *(Bessemer)*	
	AG 155.3	HBD-DED *(Burstall)*	
	AG 156.2	BURSTALL.. CP	
SS 19 800	AG 161.4	MCCALLA... CP	
	AG 165.5	NEWELL... CP	
	AG 167.3	HBD-DED-HWD *(Tannehill)*	
SS 15 216	AG 171.8	WOODSTOCK.. CP	
	AG 174.8	VANCE.. CP	
	AG 177.8	HBD *(Vance)*	
SS 77 00	AG 178.3	MERCEDES... CP	
	AG 179.9	BENZ.. CP	
SS 93 33	AG 185.3	COALING.. CP	
	AG 187.3	FLEMING.. CP	
	AG 192.5	HBD-DED *(Wilcut)*	

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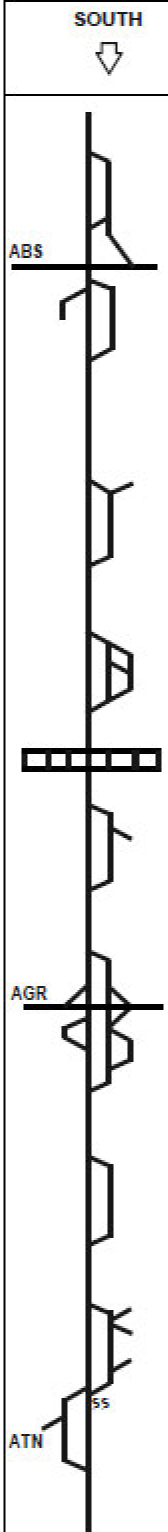
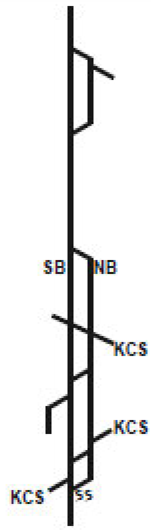
AGS SOUTH DISTRICT



SIDINGS IN FEET	MP	STATION	NOTES
		AGS SOUTH DISPATCHER........................ 803	
	AG 197.5	**BRYANT**..ss, CP	
	AG 198.4	Tuscaloosa Passenger Station......................Y	
SS 10549	AG 199.1	**TUSCALOOSA**.. C	1
	AG 201.2	**CRABTREE**.. CP	
	AG 202.3	HBD-DED *(Hardy)*	
	AG 212.7	HBD-DED *(Moundville)*	
CS 6204	AG 213.2	**MOUNDVILLE**.. CP	
	AG 214.5	**POWERS**.. CP	
	AG 222.1	HBD-DED *(Stewart)*	
CS 8358	AG 223.0	**STEWART**.. CP	
	AG 224.6	**AKRON**.. CP	
	AG 229.6	Warrior River Bridge.. DB	
SS 12508	AG 230.0	**MCCLURE**.. CP	
	AG 232.4	**EUTAW**.. CP	
	AG 233.3	HBD-DED *(Eutaw)*	
CS 11469	AG 242.0	**BERMUL**.. CP	
	AG 242.8	**BOLIGEE**.. A	
	AG 244.2	**MILLER**.. CP	
	AG 245.5	HBD-DED *(Miller)*	
SS 11495	AG 254.7	**PARKER**.. CP	
	AG 257.0	**LIVINGSTON**.. CP	
	AG 260.4	HBD-DED *(Hixon)*	
CS 6260	AG 266.9	**MCGREGOR**.. CP	
7150	AG 268.2	**YORK**.. CP	
	AG 269.7	**MCCONNELL**.. CP	
	AG 275.3	HBD-DED-HWD *(Cuba)*	

AGS SOUTH DISTRICT



SOUTH	SIDINGS IN FEET	MP	STATION	NOTES
			AGS SOUTH DISPATCHER........................ 803	
	CS 72 53	**AG 280.7**	**SMITH, MS**........................ CP	
		AG 282.2	**TOOMSUBA**........................ CP	
		AG 284.5	HBD-DED *(Toomsuba)*	
		AG 292.7	**BREYER**........................ VL CP	
		AG 294.8	KCS Interlocking........................ A	
		AG 295.0	Meridian Passenger Station	
		AG 295.4 / NO 0.4	Meridian........................ VL	

STATION PAGE INFORMATION

NOTE 1: Railroad crossings, interlocking signals and switches are controlled by the AGS South Dispatcher.

1. RULES IN EFFECT

Between	Main 1 Track	Main 2 Track	Psgr. Track
	Rules		
20th Street and 32nd Street	261 PTC	261 PTC	261 PTC
32nd Street and Burstall	261 PTC	261 PTC	
Burstall and Breyer	261 PTC		
Breyer and Meridian	93	93	

2. MAXIMUM SPEEDS

Between	Psgr.	Rhwy	Frt.
	MPH		
MP AG 136.7, Irondale (Norris Yard) and MP AG 143.5, 14th Street	30	30	30
Except: MP AG 136.7, 20th Street, Head end only over crossings	25	25	25
MP AG 136.7, 20th Street, Through crossovers	25	25	25
MP AG 137.7, Brussels, Through turnout	25	25	25
MP AG 143.5, 14th Street, and MP AG 156.4	79	60	50
Except: MP AG 143.5, Over CSXT Crossings	25	25	25
MP AG 149.1, Powderly, Through crossovers	45	40	40
MP AG 145.1 to MP 152.0, Curves	70	60	50
MP AG 156.1, Through turnout, End of Double Track	45	40	40
MP AG 156.2, Through 3B Turnout to Mobile District	30	30	30

AGS SOUTH DISTRICT

2. MAXIMUM SPEEDS (CONT.)

Between	Psgr.	Rhwy.	Frt.
	MPH		
MP AG 156.4 and MP AG 190.9	79	60	50
Except: MP AG 161.4, McCalla, Through turnout	40	40	40
MP AG 161.4 to MP AG 165.5, Through signaled siding	40	40	40
MP AG 161.4 to MP AG 165.5, Through Running Track	15	15	15
MP AG 165.5, Newell, Through turnout	40	40	40
MP AG 166.6 to MP AG 166.9, Curve	70	60	50
MP AG 168.3 to MP AG 168.5, Curve	60	60	50
MP AG 169.0 to MP AG 175.6, Curves	70	60	50
MP AG 171.8, Woodstock, Through turnout	20	20	20
MP AG 175.9 to MP AG 176.3, Curve	65	60	50
MP AG 176.7 to MP AG 177.0, Curve	60	60	50
MP AG 178.2, Mercedes, to MP AG 179.9, Benz, Through turnouts and Siding	20	20	20
MP AG 177.3 to MP AG 182.0, Curves	65	60	50
MP AG 182.1 to MP AG 191.9, Curves	60	60	50
MP AG 185.3, Coaling, Through turnout	25	25	25
MP AG 185.4 to MP AG 187.3, Through signaled siding	25	25	25
MP AG 187.3, Fleming, Through turnout	25	25	25
MP AG 190.9 and MP AG 199.5	79	60	50
Except: MP AG 190.9 to MP AG 192.9, Curve	55	55	50
MP AG 193.2 to MP AG 196.4, Curves	50	50	45
MP AG 194.9 to MP AG 197.5, Bryant, Head end only over street crossings	45	45	45
MP AG 197.5, Bryant, to MP AG 199.5, Head end only over street crossings	40	40	40
MP AG 197.6 to MP AG 198.4, Curves	40	40	40
MP AG 198.9 to MP AG 199.1, Curve	45	45	40
MP AG 198.9, Over ABS R.R. Crossing	40	40	40
Tuscaloosa, Wye Track	5	5	5
MP AG 199.1, Tuscaloosa, Through turnout	25	25	25
MP AG 199.1 to MP AG 201.3, Through signaled siding	25	25	25
MP AG 199.5 and MP AG 228.5	79	60	50
Except: MP AG 201.3, Crabtree, Through turnout	25	25	25
MP AG 204.2 to MP AG 204.4, Curve	70	60	50
MP AG 204.9 to MP AG 212.3, Curves	60	60	50
MP AG 213.2, Moundville, Through turnout	20	20	20
MP AG 213.2 to MP AG 214.5, Through Siding	20	20	20
MP AG 214.5, Powers, Through turnout	20	20	20
MP AG 214.8 to MP AG 217.2, Curves	75	60	50
MP AG 217.9 to MP AG 218.4, Curve	65	60	50
MP AG 219.0 to MP AG 226.2, Curves	75	60	50

AGS SOUTH DISTRICT

2. MAXIMUM SPEEDS (CONT.)

Between	Psgr.	Rhwy.	Frt.
	MPH		
MP AG 228.5 and MP AG 243.0	79	60	50
Except: MP AG 229.0 to MP AG 229.8, Curves	40	40	40
MP AG 229.5 to MP AG 229.6, Drawspan	25	25	25
MP AG 230.0, McClure, Through turnout	25	25	25
MP AG 230.0 to MP AG 232.5, Through signaled siding	25	25	25
MP AG 231.3 to MP AG 231.5, Curve	60	60	50
MP AG 232.3 to MP AG 233.0, Head end only over street crossings	55	55	50
MP AG 232.5, Eutaw, Through turnout	25	25	25
MP AG 234 to MP AG 242.0	60	60	50
MP AG 242.5, Over AGR Crossing	40	40	40
MP AG 243.0 and MP AG 249.0	79	60	50
Except: MP AG 248.2 to MP AG 248.6, Curve	70	60	50
MP AG 249.0 and MP AG 254.8	79	60	50
Except: MP AG 249.2 to MP AG 250.3, Curves	55	55	50
MP AG 249.2 to MP AG 249.7, Tombigbee River Bridge	55	55	50
MP AG 251.1 to MP AG 251.4, Curve	65	60	50
MP AG 251.9 to MP AG 252.8, Curves	70	60	50
MP AG 252.8 to MP AG 254.4, Curves	50	50	45
MP AG 254.4 to MP AG 254.7, Curve	60	60	50
MP AG 254.8 and MP AG 267.8	79	60	50
Except: MP AG 254.7, Parker, Through turnout	40	40	40
MP AG 254.7 to MP AG 257.0, Through signaled siding	40	40	40
MP AG 255.2 to MP AG 259.3, Curves	60	60	50
MP AG 257.0, Livingston, Through turnout	40	40	40
MP AG 265.1 to MP AG 266.8, Curves	75	60	50
MP AG 267.8 and MP AG 278.0	79	60	50
Except: MP AG 267.9 to MP AG 268.2, Curve	55	55	50
MP AG 269.8 to MP AG 270.2, Curve	65	60	50
MP AG 271.7 to MP AG 277.9, Curves	55	55	50
MP AG 278.0 and MP AG 293.6	79	60	50
Except: MP AG 278.8 to MP AG 282.1, Curves	75	60	50
MP AG 283.9 to MP AG 293.6, Curves	70	60	50
MP AG 292.7, Breyer, Through turnout	45	40	40
MP AG 293.6 and MP AG 295.4, 27th Avenue, Meridian	79	60	50
Except: MP AG 293.6 to MP AG 293.8	60	60	50
MP AG 294.6 to MP AG 295.4, Curves	25	25	25
MP AG 294.8, Over KCS R.R. Crossing	25	25	25

Appendix B

CARS

C-100. FREIGHT CAR INSPECTION

At each location where freight cars are added to a train which have not been inspected at that point, in addition to making required air brake test, the car(s) must be inspected by the train crew for the following conditions:

(a) Carbody

1. Leaning or listing to side.
2. Sagging downward.
3. Positioned improperly on truck.
4. Object dragging below.
5. Object extending from side.
6. Door insecurely attached.
7. Broken or missing safety appliance.
8. Lading leaking from a placarded hazardous material car.

(b) Insecure coupling.

(c) Overheated wheel or journal.

(d) Broken or cracked wheel.

(e) Brake that fails to release.

(f) Any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination.

When performing inspection of freight cars in compliance with this rule, the train crewmember(s) must inspect both sides. If an inspection cannot be safely made of both sides of the equipment because of terrain, a one-side inspection is acceptable. The train may be moved to the nearest available location where the necessary inspection of the opposite side can be performed.

This inspection MUST NOT be performed while the freight cars being inspected are moving.

NOTE: Employees must not make a Rule C-100 inspection while riding on a locomotive, freight car, caboose or other On-Track equipment.

Appendix C

Appendix D to Part 215—Pre-departure Inspection Procedure

At each location where a freight car is placed in a train and a person designated under § 215.11 is not on duty for the purpose of inspecting freight cars, the freight car shall, as a minimum, be inspected for the imminently hazardous conditions listed below that are likely to cause an accident or casualty before the train arrives at its destination. These conditions are readily discoverable by a train crew member in the course of a customary inspection.

1. Car body:
    (a) Leaning or listing to side.
    (b) Sagging downward.
    (c) Positioned improperly on truck.
    (d) Object dragging below.
    (e) Object extending from side.
    (f) Door insecurely attached.
    (g) Broken or missing safety appliance.
    (h) Lading leaking from a placarded hazardous material car.
2. Insecure coupling.
3. Overheated wheel or journal.
4. Broken or extensively cracked wheel.
5. Brake that fails to release.
6. Any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination.

[45 FR 26711, Apr. 21, 1980, as amended at 73 FR 79701, Dec. 30, 2008]

Appendix D

§ 215.13 Pre-departure inspection.

(a) At each location where a freight car is placed in a train, the freight car shall be inspected before the train departs. This inspection may be made before or after the car is placed in the train.

(b) At a location where an inspector designated under § 215.11 is on duty for the purpose of inspecting freight cars, the inspection required by paragraph (a) of this section shall be made by that inspector to determine whether the car is in compliance with this part.

(c) At a location where a person designated under § 215.11 is not on duty for the purpose of inspecting freight cars, the inspection required by paragraph (a) shall, as a minimum, be made for those conditions set forth in appendix D to this part.

(d) Performance of the inspection prescribed by this section does not relieve a railroad of its liability under § 215.7 for failure to comply with any other provision of this part.

[45 FR 26710, Apr. 21, 1980]

Appendix E

NORFOLK SOUTHERN RAILROAD – SIGNAL RULES▲

340 — CLEAR (DWARF)
Proceed at authorized speed.

341 — APPROACH DIVERGING (DWARF)
Proceed preparing to take diverging route beyond next signal at authorized speed.

342 — ADVANCE APPROACH (DWARF)
Proceed preparing to stop at second signal.

343 — DIVERGING CLEAR (DWARF)
Proceed through diverging route, observing authorized speed through turnout(s) or crossover(s).
NOTE: Unless another signal intervenes, movement must be prepared to take diverging route at next Controlled Signal.

344 — APPROACH RESTRICTED (DWARF)
Proceed, approaching next signal at Restricted speed. Train or engine exceeding Medium speed must at once reduce to that speed.

345 — DIVERGING APPROACH RESTRICTED (DWARF)
Proceed through diverging route, observing authorized speed through turnout(s) or crossover(s), approaching next signal at Restricted speed. Train or engine exceeding Medium speed must at once reduce to that speed.

346 — APPROACH (DWARF)
Proceed preparing to stop at next signal. Train or engine exceeding Medium speed must at once reduce to that speed.

347 — DIVERGING APPROACH (DWARF)
Proceed onto diverging route, observing authorized speed through turnout(s) or crossover(s), preparing to stop at next signal. Train or engine exceeding Medium speed must at once reduce to that speed.

348 — RESTRICTING (DWARF)
Proceed at Restricted speed. Restricted Speed must be observed until the leading end of the movement reaches the next signal.
EXCEPTION: When the signal governs movement to non-signaled territory or to a track signaled for movement in the opposite direction only, Restricted speed applies until the leading end of the movement is through any crossovers, turnouts, or controlled point/Interlocking limits governed by that signal.

349 — STOP (DWARF)
Stop.

350 — NON-AUTOMATIC BLOCK, CLEAR
Proceed. A train or engine that is delayed after passing this signal must approach the next signal prepared to stop.
NOTE: This signal provides only about the next signal, not conditions of or on the track ahead.

351 — NON-AUTOMATIC BLOCK, APPROACH
Approach next signal prepared to stop. Train or engine exceeding Medium speed must at once reduce to that speed.
NOTE: This signal provides only about the next signal, not conditions of or on the track ahead.

93 — YARD LIMIT SIGN (example sign)
YARD LIMIT
Yard Limits are designated in the Timetable, and indicated by "Yard Limit" signs. All train and engine movements within Yard Limits must be made at Restricted Speed unless operating on a block signal indication that is more favorable than an Approach Restricted or Diverging Approach Restricted. A train or engine must not move against the current of traffic within Yard Limits until provision has been made for the protection of the movement, and movement must be made at Restricted Speed.

353 — TAKE SIDING INDICATOR
When letter "S" is illuminated, take siding.

354 — HOLDING SIGNAL
When letter "H" is illuminated, stay until authorized to proceed.

280 — RULE 280 APPLIES SIGN (example sign)
AUTOMATIC INTERLOCKING AHEAD RULE 280 APPLIES
A train or engine must proceed prepared to stop approaching an automatic interlocking-railroad crossing at grade when:
(a) Stopped while approaching or after passing the distant signal.
(b) Moving less than 25 MPH approaching or after passing the distant signal.
The designated distant signal will be identified with this sign located in approach to the automatic interlocking.
EXCEPTION: This rule will not apply in approach to Automatic Interlocking designated by special instructions.

211 — SPRING SWITCH MARKER LIGHT - NORMAL (SS, DWARF SS)
Switch points are in normal position.
(Requires "SS" plaque, as shown.)

211 — SPRING SWITCH MARKER LIGHT - STOP (SS, DWARF SS)
Stop and examine switch points before proceeding.
(Requires "SS" plaque, as shown.)

728 — APPROACH PREPARED TO STOP SIGN
Approach prepared to stop short of *Conditional Stop Sign*.
This sign is to be displayed not less than 1½ miles in advance of *Conditional Stop Sign* (unless working limits of **Form Y** are near terminals or yards—see Rules 736).

729 — CONDITIONAL STOP SIGN
Stop, unless notified by radio communication or in person the employee named in **Form Y** that track is clear. See Rule 731.
For use in connection with **Form Y** and Rules 732-737.

SP-5(a) / 102 — PERMANENT SPEED SIGNS
(a) Numbers on speed limit signs, where provided, indicate the maximum speed on curves. When used on single track, speed limit signs are located to the right of the track approaching the restricted curve(s). Where movements operate in either direction on two or more tracks, speed limit signs are also located to the left.
(b) Where provided, a number plate below a speed limit sign indicates the number of curves that it governs.
(c) The speed restriction indicated by a speed limit sign must be observed until the rear of the train passes the point of restriction that governs opposing trains. If a more restrictive sign intervenes, its indication also must be observed.

311 / 312 — NON-AUTOMATIC BLOCK SIGNAL PLAQUE
This marker is attached to all fixed signals acting under Rule 350 and 351. They are not block signals, and inform only about the next signal, not conditions of or on the track ahead.

301 — DOLL ARMS
BLUE LAMP IS OPTIONAL
One or more tracks intervene between the signal and the track governed by the signal. When more than one track intervenes, the number of doll arms, with or without blue lights, is increased accordingly.

301 — BRACKETTED SIGNALS
The right-hand signal governs right-hand track, and left-hand signal governs left-hand track.

SIGNALING SPEED LIMITS

Medium Speed	30 MPH
Slow Speed	15 MPH
Reduced Speed*	*as posted*
Restricted Speed**	20 MPH

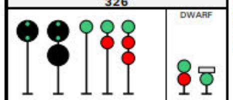
* A speed that will permit complying with flagging signals and stopping short of train or obstruction.

** A speed that will permit stopping within half the range of vision, short of train, engine, obstruction, railroad car, men or equipment fouling track, Stop signal, derail, or switch lined improperly, and looking out for a broken rail, but not exceeding 20 MPH.

 LINES RADIATING FROM SIGNAL LAMP INDICATE FLASHING ASPECT. ▲FOR NEW INSTALLATIONS AND LEGACY SOUTHERN RAILWAY TERRITORY. REVISION #5 – 05202022

NORFOLK SOUTHERN RAILROAD – SIGNAL RULES – FORMER N&W TERRITORY

326

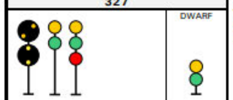


CLEAR

Proceed at authorized speed.

(Number plate required, as shown.)

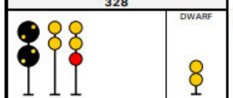
327



APPROACH DIVERGING

Proceed preparing to take diverging route beyond next signal at authorized speed.

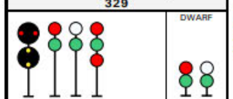
328



ADVANCE APPROACH

Proceed preparing to stop at second signal.

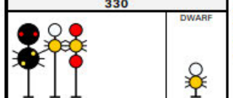
329



DIVERGING CLEAR

Proceed through diverging route, observing authorized speed through turnout(s) or crossover(s).

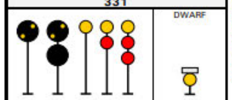
330



DIVERGING APPROACH DIVERGING

Proceed through turnout(s) or crossover(s) at authorized speed preparing to take diverging route beyond next signal at authorized speed.

331

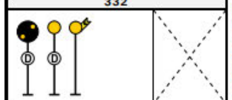


APPROACH

Proceed preparing to stop at next signal. Train or engine exceeding Medium Speed must at once reduce to that speed.

(Number plate required, as shown.)

332



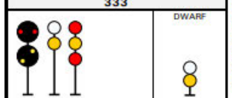
APPROACH DISTANT

Proceed preparing to stop at next home signal. Train or engine exceeding Medium Speed must at once reduce to that speed.

NOTE: Signal does not afford automatic block protection.

(Black/White "D" placard required, as shown.)

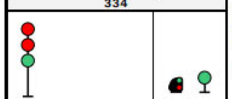
333



DIVERGING APPROACH

Proceed through diverging route, observing authorized speed through turnout(s) or crossover(s), preparing to stop at next signal. Train or engine exceeding Medium Speed must at once reduce to that speed.

334

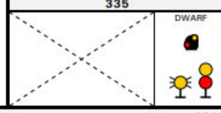


SLOW CLEAR

Proceed; Slow Speed within controlled point/interlocking limits or through turnout(s) or crossover(s).

NOTE: Slow Speed applies until leading end of movement reaches opposing home signal when route is lined for straight track movement. Slow Speed applies for entire movement through turnout(s) or crossover(s).

335

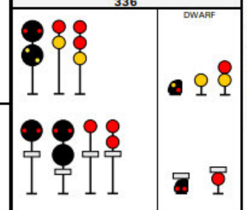


SLOW APPROACH

Proceed preparing to stop at next signal; Slow Speed within controlled point/interlocking limits or through turnout(s) or crossover(s).

NOTE: Slow Speed applies until leading end of movement reaches opposing home signal when route is lined for straight track movement. Slow Speed applies for entire movement through turnout(s) or crossover(s).

336



RESTRICTING

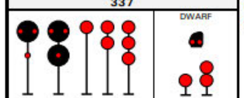
Proceed at Restricted speed.

Restricted speed must be observed until the leading end of the movement reaches the next signal.

(Number plate required, as shown.)

EXCEPTION: When the signal governs movement to non-signaled territory or to a track signaled for movement in the opposite direction only, Restricted speed applies until the leading end of the movement is through any crossovers, turnouts, or controlled point/interlocking limits governed by that signal.

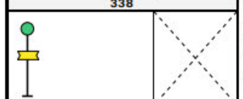
337



STOP

Stop before passing the signal.

338

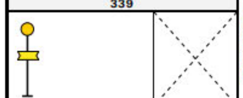


NON-AUTOMATIC BLOCK, CLEAR

Proceed. A train or engine that is delayed after passing this signal must approach the next signal prepared to stop.

NOTE: This signal provides only about the next signal, not conditions of or on the track ahead.

339



NON-AUTOMATIC BLOCK, APPROACH

Approach next signal prepared to stop. Train or engine exceeding Medium speed must at once reduce to that speed.

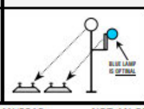
NOTE: This signal provides only about the next signal, not conditions of or on the track ahead.

338 / 339

NON-AUTOMATIC BLOCK SIGNAL PLAQUE

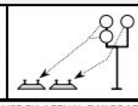
This marker is attached to all fixed signals acting under Rule 293 and 294. They are not block signals, and inform only about the next signal, not conditions of or on the track ahead.

301



DOLL ARMS

One or more tracks intervene between the signal and the track governed by the signal. When more than one track intervenes, the number of doll arms, with or without blue lights or reflectors, is increased accordingly.



BRACKETTED SIGNALS

The right-hand signal governs right-hand track, and left-hand signal governs left-hand track.

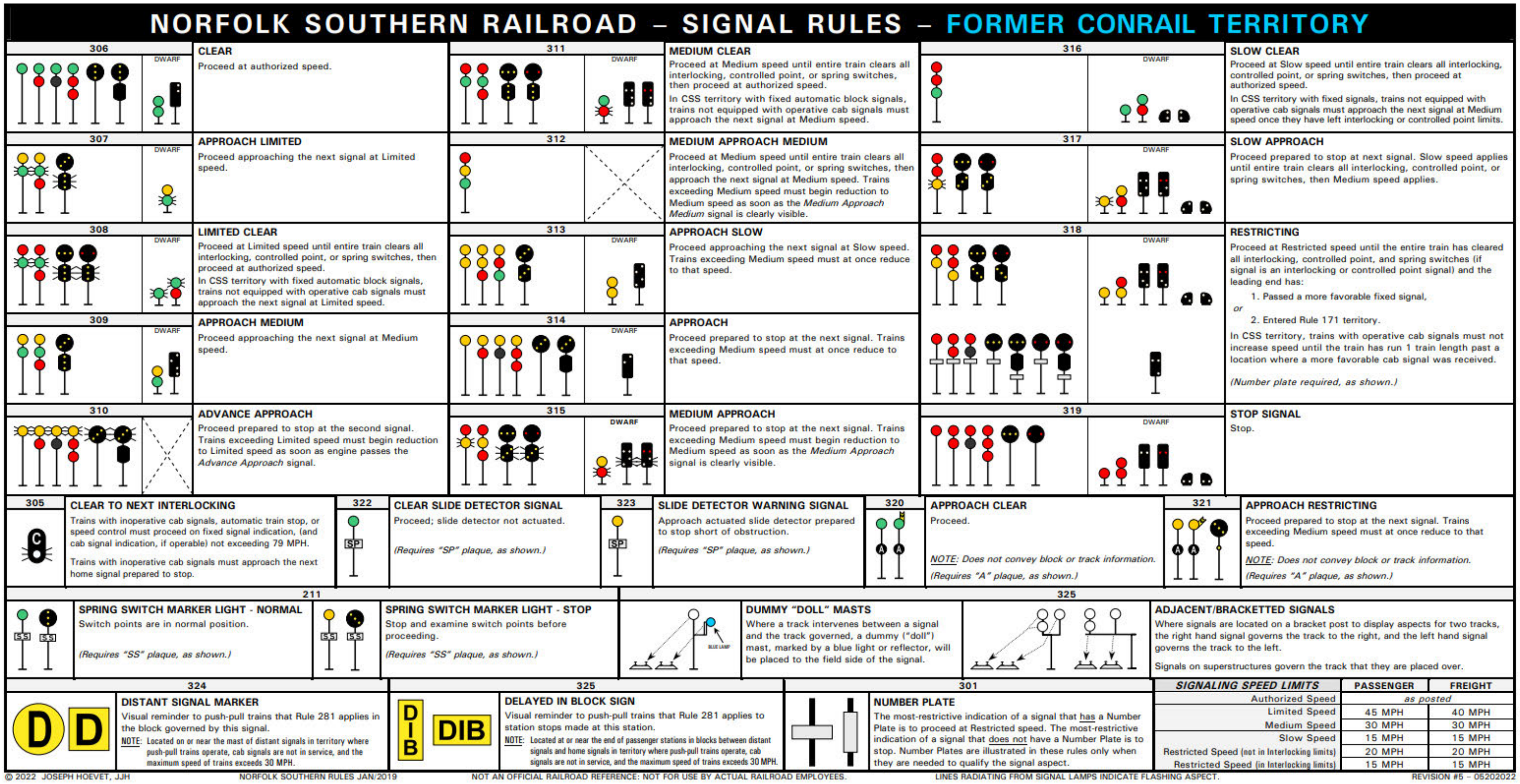
SIGNALING SPEED LIMITS

Medium Speed	30 MPH
Slow Speed	15 MPH
Reduced Speed*	*as posted*
Restricted Speed**	20 MPH

* A speed that will permit complying with flagging signals and stopping short of train or obstruction.

** A speed that will permit stopping within half the range of vision, short of train, engine, obstruction, railroad car, men or equipment fouling track, Stop signal, derail, or switch lined improperly, and looking out for a broken rail, but not exceeding 20 MPH.

 NORFOLK SOUTHERN RULES JAN/2019 LINES RADIATING FROM SIGNAL LAMP INDICATE FLASHING ASPECT. REVISION #5 – 05202022


NORFOLK SOUTHERN RAILROAD – SIGNAL RULES – FORMER CONRAIL TERRITORY
306
DWARF
CLEAR
Proceed at authorized speed.
307
DWARF
APPROACH LIMITED
Proceed approaching the next signal at Limited speed.
308
DWARF
LIMITED CLEAR
Proceed at Limited speed until entire train clears all interlocking, controlled point, or spring switches, then proceed at authorized speed.
In CSS territory with fixed automatic block signals, trains not equipped with operative cab signals must approach the next signal at Limited speed.
309
DWARF
APPROACH MEDIUM
Proceed approaching the next signal at Medium speed.
310
ADVANCE APPROACH
Proceed prepared to stop at the second signal. Trains exceeding Limited speed must begin reduction to Limited speed as soon as engine passes the Advance Approach signal.
311
DWARF
MEDIUM CLEAR
Proceed at Medium speed until entire train clears all interlocking, controlled point, or spring switches, then proceed at authorized speed.
In CSS territory with fixed automatic block signals, trains not equipped with operative cab signals must approach the next signal at Medium speed.
312
MEDIUM APPROACH MEDIUM
Proceed at Medium speed until entire train clears all interlocking, controlled point, or spring switches, then approach the next signal at Medium speed. Trains exceeding Medium speed must begin reduction to Medium speed as soon as the Medium Approach Medium signal is clearly visible.
313
DWARF
APPROACH SLOW
Proceed approaching the next signal at Slow speed. Trains exceeding Medium speed must at once reduce to that speed.
314
DWARF
APPROACH
Proceed prepared to stop at the next signal. Trains exceeding Medium speed must at once reduce to that speed.
315
DWARF
MEDIUM APPROACH
Proceed prepared to stop at the next signal. Trains exceeding Medium speed must begin reduction to Medium speed as soon as the Medium Approach signal is clearly visible.
316
DWARF
SLOW CLEAR
Proceed at Slow speed until entire train clears all interlocking, controlled point, or spring switches, then proceed at authorized speed.
In CSS territory with fixed signals, trains not equipped with operative cab signals must approach the next signal at Medium speed once they have left interlocking or controlled point limits.
317
DWARF
SLOW APPROACH
Proceed prepared to stop at next signal. Slow speed applies until entire train clears all interlocking, controlled point, or spring switches, then Medium speed applies.
318
DWARF
RESTRICTING
Proceed at Restricted speed until the entire train has cleared all interlocking, controlled point, and spring switches (if signal is an interlocking or controlled point signal) and the leading end has:
1. Passed a more favorable fixed signal,
or
2. Entered Rule 171 territory.
In CSS territory, trains with operative cab signals must not increase speed until the train has run 1 train length past a location where a more favorable cab signal was received.
(Number plate required, as shown.)
319
DWARF
STOP SIGNAL
Stop.
305
CLEAR TO NEXT INTERLOCKING
Trains with inoperative cab signals, automatic train stop, or speed control must proceed on fixed signal indication, (and cab signal indication, if operable) not exceeding 79 MPH.
Trains with inoperative cab signals must approach the next home signal prepared to stop.
322
SP
CLEAR SLIDE DETECTOR SIGNAL
Proceed; slide detector not actuated.
(Requires "SP" plaque, as shown.)
323
SP
SLIDE DETECTOR WARNING SIGNAL
Approach actuated slide detector prepared to stop short of obstruction.
(Requires "SP" plaque, as shown.)
320
APPROACH CLEAR
Proceed.
NOTE: Does not convey block or track information.
(Requires "A" plaque, as shown.)
321
APPROACH RESTRICTING
Proceed prepared to stop at the next signal. Trains exceeding Medium speed must at once reduce to that speed.
NOTE: Does not convey block or track information.
(Requires "A" plaque, as shown.)
211
SS
SPRING SWITCH MARKER LIGHT - NORMAL
Switch points are in normal position.
(Requires "SS" plaque, as shown.)
SPRING SWITCH MARKER LIGHT - STOP
Stop and examine switch points before proceeding.
(Requires "SS" plaque, as shown.)
325
BLUE LAMP
DUMMY "DOLL" MASTS
Where a track intervenes between a signal and the track governed, a dummy ("doll") mast, marked by a blue light or reflector, will be placed to the field side of the signal.
ADJACENT/BRACKETTED SIGNALS
Where signals are located on a bracket post to display aspects for two tracks, the right hand signal governs the track to the right, and the left hand signal governs the track to the left.
Signals on superstructures govern the track that they are placed over.
324
D D
DISTANT SIGNAL MARKER
Visual reminder to push-pull trains that Rule 281 applies in the block governed by this signal.
NOTE: Located on or near the mast of distant signals in territory where push-pull trains operate, cab signals are not in service, and the maximum speed of trains exceeds 30 MPH.
325
D I B
DIB
DELAYED IN BLOCK SIGN
Visual reminder to push-pull trains that Rule 281 applies to station stops made at this station.
NOTE: Located at or near the end of passenger stations in blocks between distant signals and home signals in territory where push-pull trains operate, cab signals are not in service, and the maximum speed of trains exceeds 30 MPH.
301
NUMBER PLATE
The most-restrictive indication of a signal that has a Number Plate is to proceed at Restricted speed. The most-restrictive indication of a signal that does not have a Number Plate is to stop. Number Plates are illustrated in these rules only when they are needed to qualify the signal aspect.
SIGNALING SPEED LIMITS | PASSENGER | FREIGHT
Authorized Speed | as posted
Limited Speed | 45 MPH | 40 MPH
Medium Speed | 30 MPH | 30 MPH
Slow Speed | 15 MPH | 15 MPH
Restricted Speed (not in Interlocking limits) | 20 MPH | 20 MPH
Restricted Speed (in Interlocking limits) | 15 MPH | 15 MPH
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NORFOLK SOUTHERN RULES JAN/2019
NOT AN OFFICIAL RAILROAD REFERENCE: NOT FOR USE BY ACTUAL RAILROAD EMPLOYEES.
LINES RADIATING FROM SIGNAL LAMPS INDICATE FLASHING ASPECT.
REVISION #5 - 05202022

Appendix F

U.S. Department of Transportation
Federal Railroad Administration

SAFETY BULLETIN 2022-01

SUBJECT: Pre-Departure Inspections – Appendix D to 49 CFR Part 215

The Federal Railroad Administration (FRA) is investigating **a recent fatal accident when a train operating on the mainline struck a piece of angle iron protruding from a freight car on the adjacent main track**. Based on FRA's preliminary results from its ongoing investigation, the piece of angle iron appears to have been part of the freight car (not lading, but a repair to the carbody side top cord of a scrap metal gondola car) that was starting to dislodge from the carbody. **It appears that the piece of angle iron was in this state when the car was pulled from the customer**, moved to a yard, and then added to a different train on the main track. **The angle iron**, which was protruding into the foul of the adjacent track, **pierced a locomotive cab window and fatally injured a member of the crew**.

The purpose of this Safety Bulletin, which is informal in nature, is to provide almost-immediate awareness to the industry that an accident or incident occurred resulting in a fatality or significant damage to property or the environment. Its purpose is to also provide the industry key information with which to brief or (re)train employees. As FRA completes its investigation, it may take additional actions with respect to this incident/accident.

Specifically, in this Safety Bulletin, FRA requests that railroads review this Safety Bulletin with its employees to **increase awareness of this hazardous condition** that led to a fatal injury. FRA also reminds train crew members that when at locations where a person designated under § 215.11 is not on duty for the purpose of inspecting freight cars (such as in customer facilities), **prior to pulling any cars** and only when it is safe to do so, to **perform a proper visual inspection of freight cars for any protruding objects that may foul an adjacent** track from a railcar, and if observing such a condition to **immediately report it**. *See* Appendix D to 49 CFR Part 215, Pre-Departure Inspection Procedure (excerpted below).

Appendix D to Part 215 - Pre-departure Inspection Procedure

At each location where a freight car is placed in a train and a person designated under § 215.11 is not on duty for the purpose of inspecting freight cars, the freight car shall, as a minimum, be inspected for the imminently hazardous conditions listed below that are likely to cause an accident or casualty before the train arrives at its destination. These conditions are readily discoverable by a train crew member in the course of a customary inspection.

1. Car body:
   (a) Leaning or listing to side.
   (b) Sagging downward.
   (c) Positioned improperly on truck.
   (d) Object dragging below.
   (e) Object extending from side.
   (f) Door insecurely attached.

Prepared by: The Federal Railroad Administration, Office of Railroad Safety

(g) Broken or missing safety appliance.
(h) Lading leaking from a placarded hazardous material car.

2. Insecure coupling.

3. Overheated wheel or journal.

4. Broken or extensively cracked wheel.

5. Brake that fails to release.

6. Any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination.

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