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March 5, 2024

Pete Buttigieg
Secretary
U.S. Department of Transportation
West Building
1200 New Jersey Ave., SE
Washington, D.C. 20590

Dear Secretary Buttigieg:

I am writing on behalf of a number of rail unions (Brotherhood of Locomotive Engineers and Trainmen (BMWED), Brotherhood of Maintenance of Way Employes Division/IBT (BMWED), Brotherhood of Railroad Signalmen (BRS), International Association of Sheet Metal, Air, Rail and Transportation Workers Union Mechanical Division ((SMART MD), International Brotherhood of Boilermakers (IBB), International Association of Machinists and Aerospace Workers District #19 (IAM #19), National Conference of Firemen and Oilers/32BJ-SEIU (NCFO), and Transport Workers Union of America (TWU)) in response to the February 5, 2024 letter of the Association of American Railroads (AAR).

AAR took the opportunity of the anniversary of the unfortunately foreseeable East Palestine disaster to congratulate its member railroads on their paltry safety efforts, and to chastise industry critics by citing irrelevant and cherry-picked data, ignoring or dismissing Federal Railroad Administration data, promoting supposed technological changes that will not fix what ails the industry with respect to rail safety, failing to recognize the efforts and abilities of their workforces, and refusing to acknowledge the railroads' self-inflicted loss of large numbers of highly skilled employees in safety sensitive positions as the railroads heed the call of finance interests to relentlessly pursue ever increasing profit margins. This letter will address the major the points made by AAR in its letter, and comment on the philosophy of those who currently dictate the goals and actions of the Class I railroads.

**1. AAR's Comparison of Current Railroad Safety Data To Data From 2000 Is Specious; And Class I Railroad Safety Performance Has Deteriorated Since 2013**

In asserting that rail safety has improved since the East Palestine incident, the Railroads cited improvements in their reported accidents per million train miles compared the rate of accidents per million train miles in 2000. That is an absurd comparison. In reaching back twenty years and congratulating themselves for performing better than they did then, the AAR picked a low point for the industry as the baseline and ignored the lack of progress, indeed degradation, of rail safety, over the last ten years.

2000 was just several years after consummation of the BNSF and UP-SP mergers; and CSXT and NSR were then still implementing their division of Conrail and merger of Conrail's assets into their existing systems. Those mergers required operational changes, combinations of previously separate lines and yards, and integrations of previously separate workforces, with attendant needs for workers to become familiar with new territories and new operating and procedures rules (including safety rules). There were significant safety and service problems as the merged railroads implemented the combinations. The chaos that followed each of the big merger and control transactions was well documented and was known to the public at large. For example, it was widely reported that Union Pacific's post-merger service between Los Angeles and Houston was a disaster, with UP unable to even locate rail cars; it was reported that when NSR began to implement its consolidation of Conrail lines into the NSR system, trains were routed on lines where bridge clearances were too low for trains routed through them. UP had tens of thousands of cars stranded on sidings, three fatal crashes in three months in 1997, ignored the experience of former SP managers regarding operations on former SP lines, blocked intersections preventing ambulances from reaching hospitals, and caused numerous train crews to exhaust their Hours of Service availability.[1] NSR and CSXT also had problems implementing their division of Conrail and integration of Conrail lines into their systems; poor integration of their computer systems left trains idling in yards without crews, cars were sent to the wrong locations, and trains blocked crossings for firefighters and ambulances.[2] The division of the Conrail assets and apportionment of workers between CSXT and NSR was not even complete by 2000. After promising to keep its Hollidaysburg car shop open, NSR closed the shop displacing hundreds of workers who performed safety sensitive work, and there were similar displacements elsewhere on its system. Additionally, 2000 was a mere nine years removed from 1991 when the railroads actually suffered a decline in earnings and presented themselves to Presidential Emergency Board 219 as in such dire economic circumstances that PEB 219 recommended sweeping collective bargaining agreement changes, and Congress ultimately legislatively imposed those changes. It is no surprise then that the early 2000s were not banner years for rail

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[1] These problems were widely known at the time, but given when they occurred, what is available electronically is limited. For examples of articles currently available on the internet detailing the UP/SP merger integration problems, see:
https://www.washingtonpost.com/archive/business/1997/10/02/union-pacific-attacks-gridlock/c0e2cd8e-dca9-49a6-873d-ee8933901a71/
https://www.wsj.com/articles/SB875724698120686000
https://money.cnn.com/magazines/fortune/fortune_archive/1998/03/30/240141/index.htm
https://www.nytimes.com/1999/03/07/business/business-untangling-gridlock-on-the-union-pacific.html

[2] For examples of articles currently available on the internet detailing the NSR/CSXT/Conrail merger integration problems, see:
https://www.dailypress.com/2000/01/13/service-problems-plague-csx-ns-after-conrail-deal/
https://www.computerworld.com/article/2594099/merged-railroads-still-plagued-by-it-snafus.html
https://money.cnn.com/1999/10/27/companies/norfolk/
https://www.baltimoresun.com/2001/05/27/norfolk-csx-seem-back-on-track/

operations and safety. By comparing current safety statistics to those in 2000, the Class I's have again set a low bar for themselves and then lauded themselves for exceeding that low bar.

A better point of comparison is the ten year period from 2013 through 2022. FRA data is provided in ten year increments. More importantly, following full consummation of the mega-mergers and full integration of the railroads and workforces, and increased investment in infrastructure and assets, the frequency of reportable accidents and incidents declined significantly by 2013. But with implementation of the new ruthless cost-cutting business model, the frequency of reportable accidents and incidents began to increase; substantially in some respects. Below is a chart drawn from FRA data showing changes in the rates of reportable accidents and incidents per million train miles in 2013 and 2022 for the Big 4 Class I railroads:

| | ROAD DERAILMENTS | | YARD DERAILMENTS | |
|---|---|---|---|---|
| **CARRIER** | **2013** | **2022** | **2013** | **2022** |
| **BNSF** | 7.3 | ***7.9*** | 16.6 | ***18.7*** |
| **CSXT** | 9.8 | ***14*** | 16.6 | ***17.2*** |
| **NSR** | 11.4 | ***12.8*** | 8.5 | ***21.3*** |
| **UP** | 10.5 | ***13.9*** | 12.7 | ***23.1*** |

As is evident from the chart, the rate of derailments increased for each of those railroads.

AAR's letter attempted to minimize the significance of yard derailments, characterizing them as like mere "fender benders", and suggesting that inclusion of yard derailment data mischaracterizes what is actually occurring. But yard derailments still can cause injuries; and derailments in yards can certainly impact service by disrupting yard operations. To suggest that the dramatic increases in yard derailments is meaningless is irresponsible. And it must be noted that the trend is undeniable, using consistent criteria, yard derailments are up significantly since 2013. Furthermore, as explained below, the FRA data show road derailments have increased too. In a letter to the Surface Transportation Board, the AAR sought to diminish the significance of the increases in road derailments by noting that the road derailment data includes incidents at grade crossings, which the railroads claim should be ignored since such events are not solely on the line of railroad. Putting aside the question of the validity of the argument for excluding grade crossing incidents (which the Unions do not accept), as shown below, when the data for accidents/incidents not at grade crossings is examined, it too shows that their frequency has increased since 2013.

At this point, FRA data on accidents/incidents per million train miles is the best data for comparing current rail safety over the last ten years because it controls for the number and length of trains. When data on current rail safety performance measured in accidents/incidents per million train miles is compared to 2013 (instead of the cherry-picked and irrelevant 2000) it is clear that rail safety has declined over the last ten years coincident with the railroads' unrelenting drive to continually achieve ever lower operating ratios and ever higher profits. The charts and graphs attached to this letter at Addendum A provide FRA data for each year since 2013 and show that each of the Big 4 Class I's has experienced an increase in accidents and incidents per million train miles generally. And even when one looks at road accidents and incidents not at grade crossings (the railroads' preferred measurement), one sees that for 2022

compared with 2013, the rates are either the same or up: BNSF– 2.198 in 2013 and 2.195 in 2022; CSXT- 0.59 in 2013 and 0.705 in 2022; UP– 1.094 in 2013 and 1.013 in 2022 (but after 3 years at 1.624, 1.283 and 1.411); and NSR– 0.617 in 2013 and 0.918 in 2022.

In their public relations work, the AAR and the railroads have repeatedly told Members of Congress and journalists that rail safety has improved because the number of derailments have decreased since the implementation of the ruthless cost-cutting business model. But that ignores the fact that the railroads are running fewer but longer trains. If the absolute number of derailments is down, but so are the number of trains, that does not show improvement. (And if a 3 mile long train derails, how does that compare to two derailments of 1 mile long trains?). It is grossly misleading for the railroads to continually assert that safety has improved by citing absolute numbers of derailments. Any assessment based on gross numbers of derailments should also look at the numbers of train starts. The railroads are not required to report that information, but they are free to do so; and they should do so if they want to cite absolute numbers of derailments as evidence of the safety of their systems.

In a recent *New York Times* article reporting an increase an 11% increase in accidents, and a 13.5% increase in derailments in 2023 over 2022, Union Pacific objected to including obstruction derailments since those were supposedly outside the railroad's control[3], but the Unions reject that assertion too. Ensuring that their rights of way are clear of obstructions is a principal responsibility of the railroads, that work is done by Track Inspectors, a job classification that the railroads have attempted to reduce as they increase automated track inspection (which is good at detecting track geometry defects (track gauge, alignment, and curves), but not objects on, or hanging over, the tracks). In order to support their claims of improved safety, the railroads want to ignore yard derailments, crossing incidents, and obstruction related derailments in an attempt to narrowly circumscribe the data used in order to support their conclusion. But an objective look at the data and circumstances over the last ten years contradicts the railroads' story line.

The FRA data do show an overall increase in accidents/incidents per million train miles, a dramatic increase in the rate of yard accidents and incidents, an increase in the rate of road accidents and incidents, and an overall increase the rate of road accidents and incidents excluding grade crossings, with BNSF essentially holding steady and the others in the Big 4 showing increases in that category. It is certainly not the case that recent data show an improvement in rail safety as contended by the AAR; and the railroads comparison to data from 2000 and continued citation to a decrease in derailments in absolute terms is just disingenuous.

**2. Technology Alone Has Not Improved Safety, and Technology Alone Will Not Improve Safety**

In touting the railroads' efforts to improve safety, the AAR has focused on technology, but completely ignored the railroads' workforces. Rail workers are the principal means of ensuring safe operations; they operate and dispatch the trains, they inspect, repair and maintain the track and right of way and signal systems and crossings, and they inspect, repair and maintain the locomotives and cars. Yet the AAR's letter concerning the railroads' efforts to improve rail safety did not once mention rail workers. That is presumably because the railroads have cut their

[3] https://www.nytimes.com/2024/01/28/business/ohio-train-derailment-safety-east-palestine.html

workforces by about 30% since 2016 and 20% since 2019. Addendum B. The railroads have affirmatively reduced the ability of their employees to maintain and improve rail safety. While new technology can be helpful in improving safety when utilized by trained, qualified, and experienced rail workers, new technology is not some magic wand that can be waived at the systems and improve safety.

For example, the AAR described its increased utilization of hot bearing detectors, stating that roller bearing defects cannot be visually inspected without being taken apart. But AAR ignores what Railroad Carmen can do, if given the opportunity and time needed to perform their jobs properly. Just because roller bearings cannot be visually inspected without taking them apart does not mean there are not visual clues that Carmen can detect that would indicate roller bearing problems. For example, if a Carmen sees lubricant dripping from an axle, it is an indication of a problem and the possibility of fire; visual inspection can also find external wear and tear and damage that would provide reason to take a car out of service for a more detailed inspection. While much attention has been paid to the hot box detector problems and protocols that led to continued operation of the NSR train that exploded in East Palestine, NSR's reduction in the number of Carmen has received hardly any attention. On the former Conrail portion of NSR (which includes the line running through East Palestine) the number of Carmen was reduced from 601 in 2016 to 228 in 2023 (a 62% reduction). Addendum C. And, as documented in the Senate Commerce Committee hearing on the East Palestine disaster, NSR had a policy of limiting car inspections to 60 seconds, when it is not even possible to walk around a car in 60 seconds. It is not known whether a larger complement of Carmen allowed to spend sufficient time to perform a car inspection would have detected the problematic wheel bearing that caused the East Palestine derailment and fire; but it is known that NSR diminished the ability of its Carmen to detect that problem.

AAR also praised the industry for increasing the use of new machine track inspection technology, noting that the machines can detect many more track geometry defects than human visual inspection alone. But AAR failed to acknowledge that in implementing these programs, the railroads are not supplementing the existing human inspection program with new technology, but are decreasing the frequency of human inspections and numbers of inspectors; and that while the machines are very good at detecting track geometry defects, they cannot detect defects like deteriorated ties, switch anomalies, drainage problems, broken bars, issues at crossings, vegetation impinging on the right of way, and obstructions on the track or right of way; and they cannot make an assessment that multiple track/right of way factors may not individually be defective, but collectively they create a hazard. The increase in the use of the track inspection machines may have improved detection of track geometry defects for which they are designed, but that does not necessarily mean the railroads are more safe. Reducing the number and frequency of human visual track inspections means that other safety problems will not be seen or not seen in a timely manner. The National Transportation Safety Board report on the derailment of an Amtrak train in Joplin, MT concluded that a fast developing defect that caused the derailment was likely missed because the assigned Track Inspector could not perform a required walking inspection where the derailment occurred because his assigned workload was too great, that he was responsible for too much track. In its conclusion the NTSB stated "All methods of track inspection are necessary and provide actionable information to inspectors in different circumstances—one mode of inspection should not be considered superior to another mode for

all track inspection needs." So, just because the railroads have add new track inspection technology does not mean that the track and right of way are necessarily more safe.[4]

**3. Railroads Say They Want to Participate in C3RS--but They Won't Commit to Doing So Because They Want Do Not Want to Relinquish the Ability to Discipline Reporting Employees.**

AAR claims that the railroads want to participate in FRA's C3RS program, a system under which employees are encouraged to confidentially report errors and faulty actions and inactions in order to help remedy problematic practices, clarify rules and procedures and utilize field experience to improve protocols. This echoes the railroads' public statements after the East Palestine event when they committed to joining the program. But over a year later, they have not joined the program. The AAR says that the process has not moved as quickly as everyone wants. But the real problem is the unwillingness of the railroads to move from a punitive disciplinary system to the sort of educational/coaching system that has helped the aviation industry dramatically improve the safety of air transportation by focusing on identifying problematic behaviors and education and correction rather than discipline. If the railroads would step away from their punitive disciplinary culture and move towards a more corrective culture, the 3CRS agreements could be completed.

**4.There is indeed a problem with wayside detectors being out of service**

The AAR criticized those who they say should know better for suggesting that large numbers of hot box detectors are often not reporting. But members of the Brotherhood of Railroad Signalmen, who maintain and repair those detectors, have reported to BRS that many of the detectors are indeed often not reporting, otherwise malfunctioning or out of service. And Addendum D to this letter includes two reports from the Union Pacific Railroad that show that during two different time periods approximately 50% of the UP hotbox detectors were out-of-service.[5] Additionally, BRS has learned that on Union Pacific, new detectors (likely among those referred to at p. 3 of AAR's letter) were staged for installation for eight months, but have not actually been installed. Addendum E to this letter includes photos of hotbox detectors that have been in storage, or on or near the right of way but not installed for about one year as Signal Construction forces have been dramatically reduced.

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[4] AAR and the railroads have told Members of Congress, a Court of Appeals and others that the FRA is somehow preventing the railroads from implementing the new track inspection machines, and that BMWED (which represents track inspectors) has opposed increased use of the machines. Both assertions by AAR and the railroads are false. Nothing is currently stopping the railroads from running as many track inspection machines as they want as often as they want. And neither FRA nor BMWED is trying to stop them from using the machines. What is at issue is the plans to reduce the frequency of human track inspection (which can pick up hazards the machines cannot), not the expanded of use of track inspection machines.

[5] Both reports list the names of the Hot Box Detectors (HBD), the states where they are located, the control point locations, track locations, CIRC7 ID, HBD Device ID, the number of trains that have crossed the HBDs in the last 30 days, the daily average of trains that cross the HBDs, the number of trains that have crossed the HBDs in the last 24 hours, and the last reported time stamp, and the number of days the HBDs did not report.

**5. The Railroads Have Decimated Their Maintenance of Equipment Workforces, Impeding Their Ability to Properly Inspect, Maintain and Repair Their Locomotives.**

In addition to the cuts to the Carmen workforces, the Class I railroads have dramatically reduced their locomotive mechanic workforces. Based on their own reporting to the STB, the Big 4 Class I railroads have cut their shopcraft workforces by 43% since 2015. And none of that can be attributed to new technology changing the methods for inspection, maintenance and repair of locomotives. And while the railroads sometimes claim that the reduction in shop workers is due to a reduction in the number of active locomotives, the reduction in shop workers far exceeds the reduction in locomotives. The ratio of shopcraft employees to locomotives has gone from 1.032 employees per locomotive in 2015 to 0.676 employees per locomotive in 2022 (a reduction of 34%). And this has had consequences for inspection, maintenance and repair of locomotives. In January of 2023, BNSF announced that over 1000 of its locomotives were overdue for their FRA mandated inspections (over 20% of its active fleet); the situation was so bad the BNSF had to seek FRA forbearance in enforcing the applicable regulations, and then had to contract-out the performance of work that it had never previously contracted-out. Despite this experience, BNSF imposed a hiring freeze last summer and curtailed its mechanic hiring plans. Then, in January of 2024, BNSF found itself with over 650 locomotives overdue for FRA mandated inspections and ordered mandatory 6 day work weeks for its locomotive mechanics for at least several weeks. Another manifestation of the shopcraft worker shortfall and the pressure to get locomotives back into service is that managers who did not actually perform inspections (and should not be performing them), have been signing off on inspection checklists to return locomotives to service; in essence these managers have been signing for completion of federally required inspections when the inspections were not actually done or not actually completed. Additionally,

Locomotive mechanics often report to their unions that they are pressed to rush through inspections and maintenance to return locomotives to service. This is problem was documented in the STB proceeding concerning the degradation of rail service (*Urgent Issues In Freight Rail Service*, Ex Parte 770); we would be glad to provide that documentation to you.

**6. The Class I Railroads Have Substantially Reduced Their Maintenance of Way And Signal workforces**

Again, while touting the railroads' actions to supposedly improve rail safety, the AAR failed to acknowledge that the Class I's have substantially reduced their maintenance of way and signal workforces. Their own reports to the STB show that the Big 4 Class I's have reduced their maintenance of way and signal workforces by about 20% since 2016 and about 10% since 2019. Since the miles of track owned by those railroads has been essentially constant since 2016, about 80% of the 2016 engineering department workforce is now responsible for maintaining 100% of the 2016 infrastructure. On BNSF the number of trackmiles per employee increased from 5.37 in 2016 to 6.30 in 2019 to 6.73 in 2022 (percentage increases of 20% since 2016 and 6% since 2019); for CSXT those numbers go from 6.09 to 7.09 to 7.34 (up 17% and 3%), for NSR those numbers go from 6.36 to 6.89 to 8.19 (up 22% and 16%), and for UP those numbers go from 4.63 to 5.45 to 6.43 (up 18% and 15%). Addendum F. Again, there has been no technological change that can account for these reductions in the engineering department workforces. And the increase in sizes of territories has resulted in maintenance of way workers and Signalmen having

to carry unreasonable workloads, and pressure on them to work fast and cut corners. This too is documented in union filings with the STB in Ex. Parte 770, and we would be glad to provide that documentation to you too.

Rather than addressing the degradation of safety and service resulting from their adoption of the finance interest driven ruthless cost-cutting business model, and the problems revealed by the East Palestine disaster and other derailments, by increasing the staffing of safety-sensitive positions so their workforces are sufficient for safe operations, the railroads have beefed-up their public relations efforts and messaging-- as is shown by AAR's recent letter to you. No matter how often the Class I railroads say that safety is their highest priority, their actions, often compelled by stock speculators (e.g. CSXT in 2017, and possibly NSR in 2024), or undertaken in order to appease stock speculators (e.g. Union Pacific in 2023), show that reduced operating ratio and increased profit margins are actually the industry's highest priority. The Department should therefore give the AAR's letter the weight it deserves– none.

*/s/ Richard S. Edelman*
Richard S. Edelman

cc: Rail Union Presidents and Directors

Surface Transportation Board

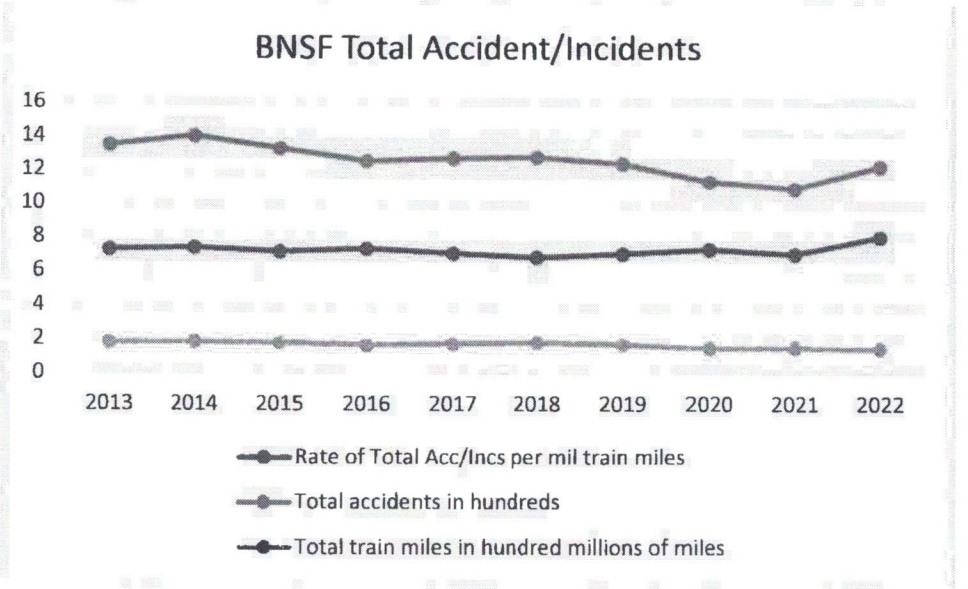
# ADDENDUM A

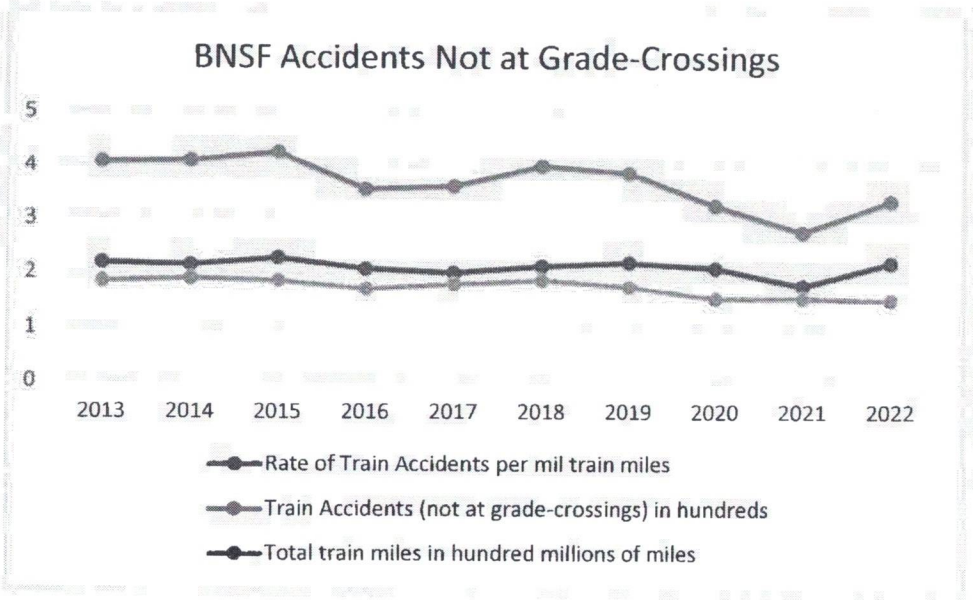
| | Union Pacific Accidents on Yard Track | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Yard switching miles | 21255114 | 21850812 | 21752304 | 18110262 | 18276258 | 18786516 | 17384302 | 14538416 | 14922426 | 14800560 |
| Accidents on yard track | 269 | 289 | 305 | 243 | 298 | 356 | 372 | 274 | 302 | 348 |
| Rate of yard accidents / yard switching miles | 12.656 | 13.226 | 14.022 | 13.418 | 16.305 | 18.95 | 21.399 | 18.847 | 20.238 | 23.513 |

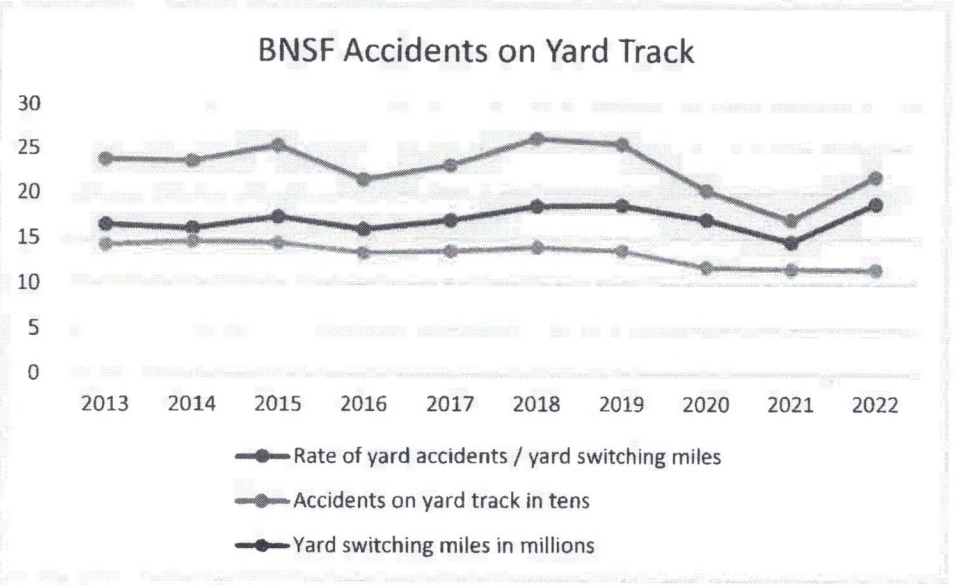
| | Norfolk Southern Total Accidents/Incidents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total Train Miles | 95,826,624 | 95,834,520 | 96,408,418 | 91,492,114 | 94,408,560 | 92,345,042 | 87,580,692 | 72,682,231 | 69,241,355 | 68,826,390 |
| Total Accidents/Incidents | 1,092 | 1,159 | 1,054 | 1,094 | 1,127 | 1,149 | 1,223 | 991 | 1,001 | 926 |
| Rate of Total Acc/Incs per mil train miles | 11.396 | 12.094 | 10.933 | 11.957 | 11.937 | 12.442 | 13.964 | 13.635 | 14.457 | 13.454 |

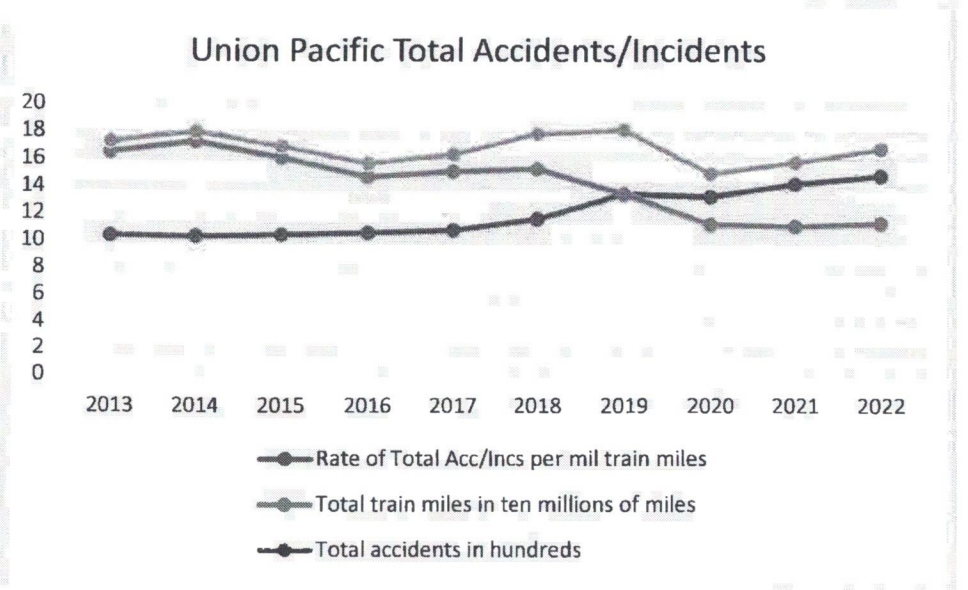
| | Norfolk Southern Accidents Not at Grade-Crossings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total Train Miles | 95,826,624 | 95,834,520 | 96,408,418 | 91,492,114 | 94,408,560 | 92,345,042 | 87,580,692 | 72,682,231 | 69,241,355 | 68,826,390 |
| Train Accidents (Not at Grade-Crossings) | 193 | 228 | 213 | 237 | 220 | 255 | 289 | 262 | 263 | 290 |
| Derailments | 143 | 188 | 171 | 192 | 175 | 178 | 181 | 140 | 156 | 134 |
| Rate of Train Accidents per mil train miles | 0.617 | 0.678 | 0.505 | 0.541 | 0.62 | 0.84 | 0.894 | 0.993 | 0.847 | 0.918 |

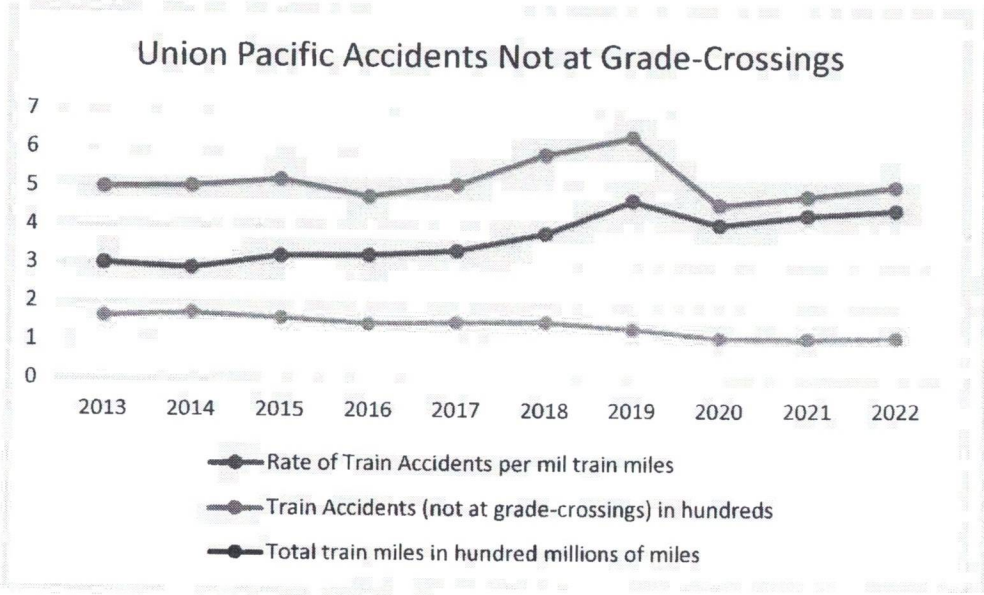
| | Norfolk Southern Accidents on Yard Track | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Yard switching miles | 13122102 | 13293264 | 13284199 | 12063641 | 12172602 | 12601044 | 11483742 | 9223176 | 7840338 | 7797055 |
| Accidents on yard track | 111 | 135 | 151 | 155 | 142 | 163 | 181 | 184 | 185 | 209 |
| Rate of yard accidents / yard switching miles | 8.459 | 10.156 | 11.367 | 12.849 | 11.666 | 12.935 | 15.761 | 19.95 | 23.596 | 26.805 |

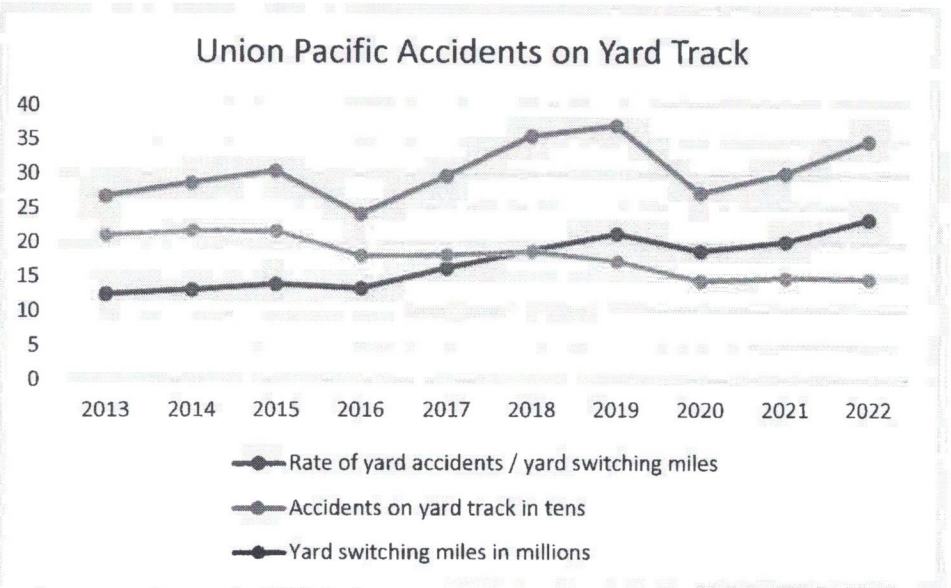

BNSF Total Accident/Incidents
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Total Acc/Incs per mil train miles
Total accidents in hundreds
Total train miles in hundred millions of miles

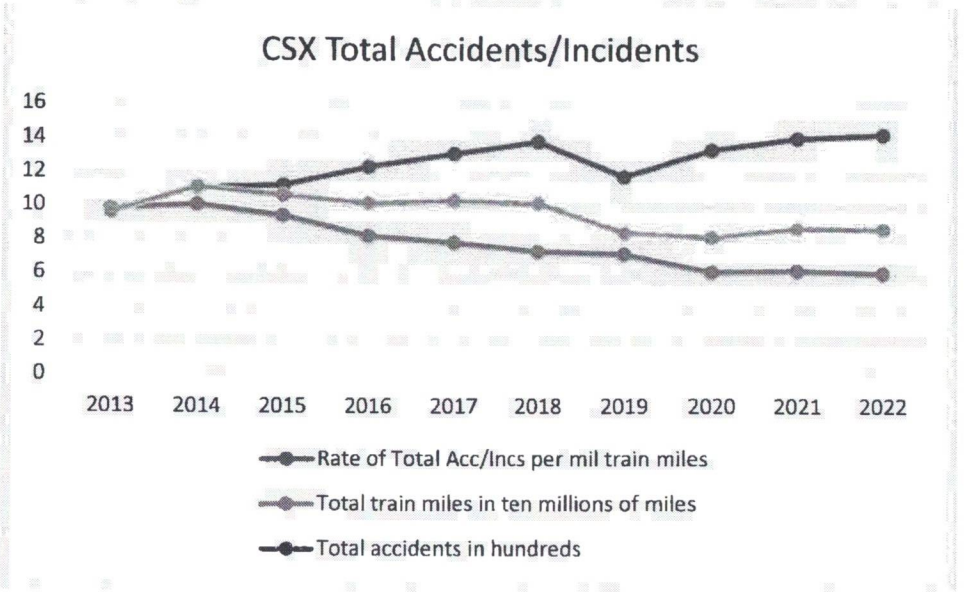

BNSF Accidents Not at Grade-Crossings
5
4
3
2
1
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Train Accidents per mil train miles
Train Accidents (not at grade-crossings) in hundreds
Total train miles in hundred millions of miles

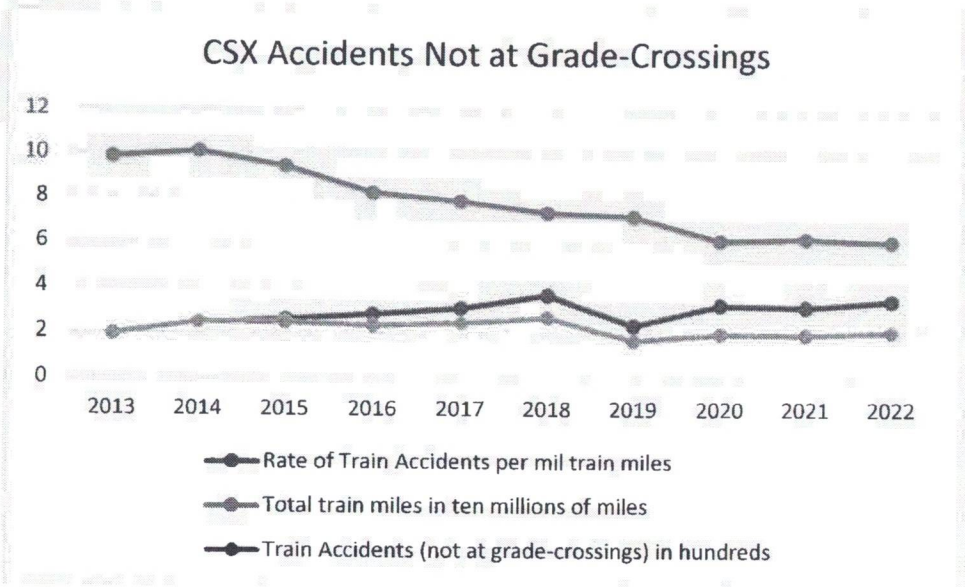

BNSF Accidents on Yard Track
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of yard accidents / yard switching miles
Accidents on yard track in tens
Yard switching miles in millions

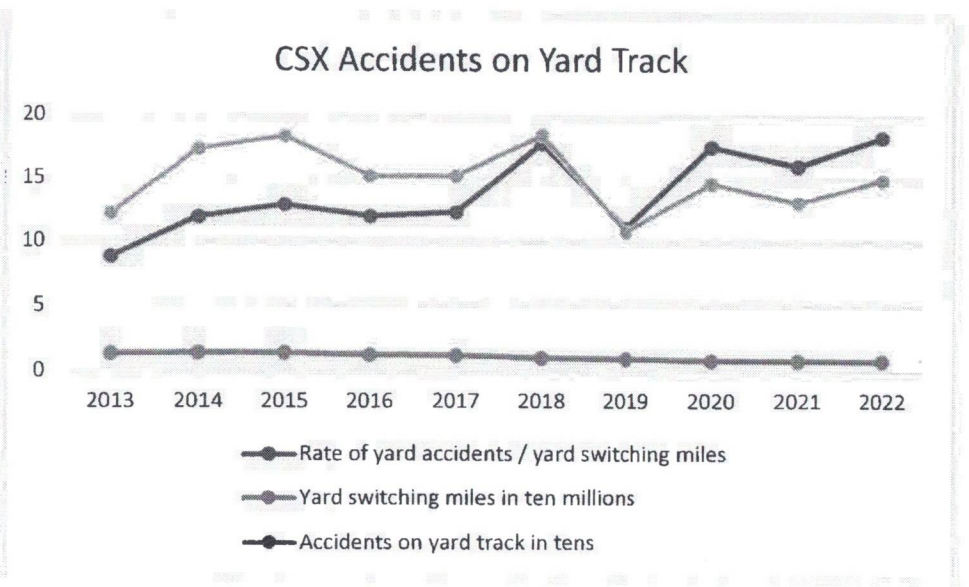

Union Pacific Total Accidents/Incidents
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Total Acc/Incs per mil train miles
Total train miles in ten millions of miles
Total accidents in hundreds

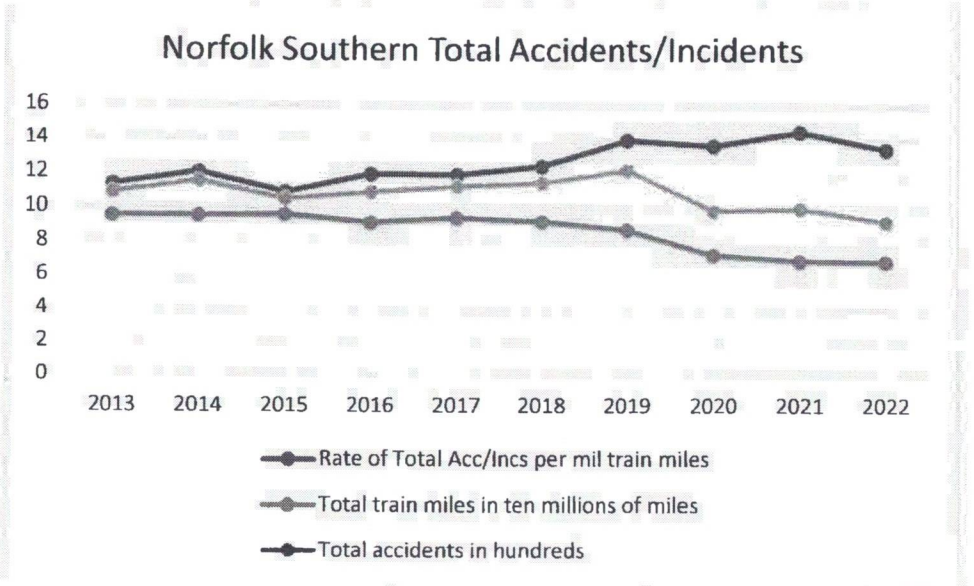

Union Pacific Accidents Not at Grade-Crossings
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Train Accidents per mil train miles
Train Accidents (not at grade-crossings) in hundreds
Total train miles in hundred millions of miles

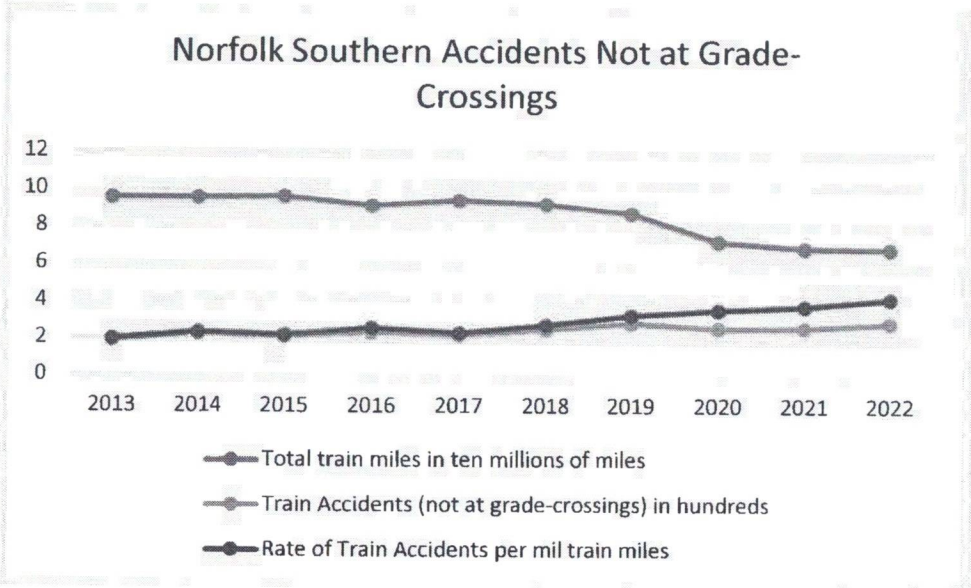

Union Pacific Accidents on Yard Track
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of yard accidents / yard switching miles
Accidents on yard track in tens
Yard switching miles in millions

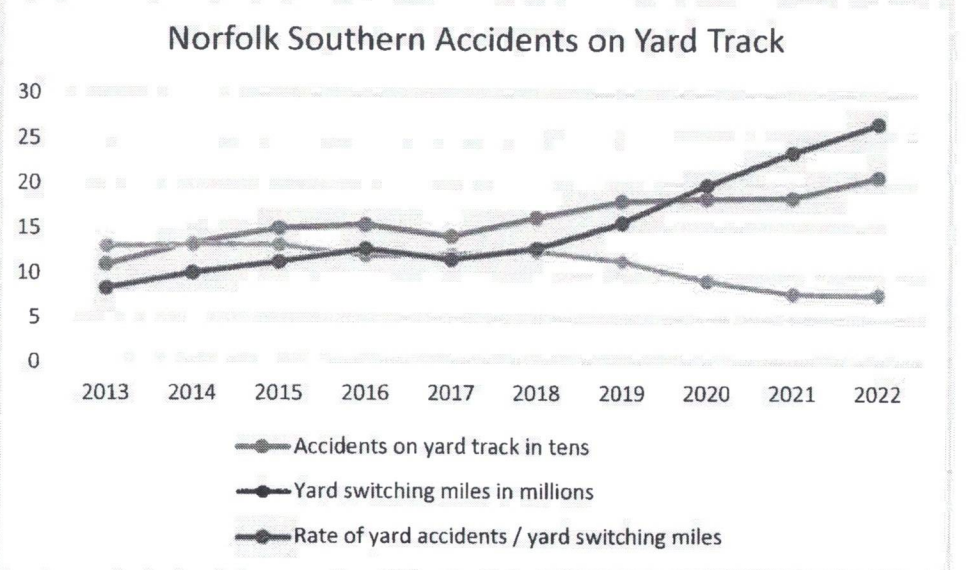

CSX Total Accidents/Incidents
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Total Acc/Incs per mil train miles
Total train miles in ten millions of miles
Total accidents in hundreds


CSX Accidents Not at Grade-Crossings
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Train Accidents per mil train miles
Total train miles in ten millions of miles
Train Accidents (not at grade-crossings) in hundreds

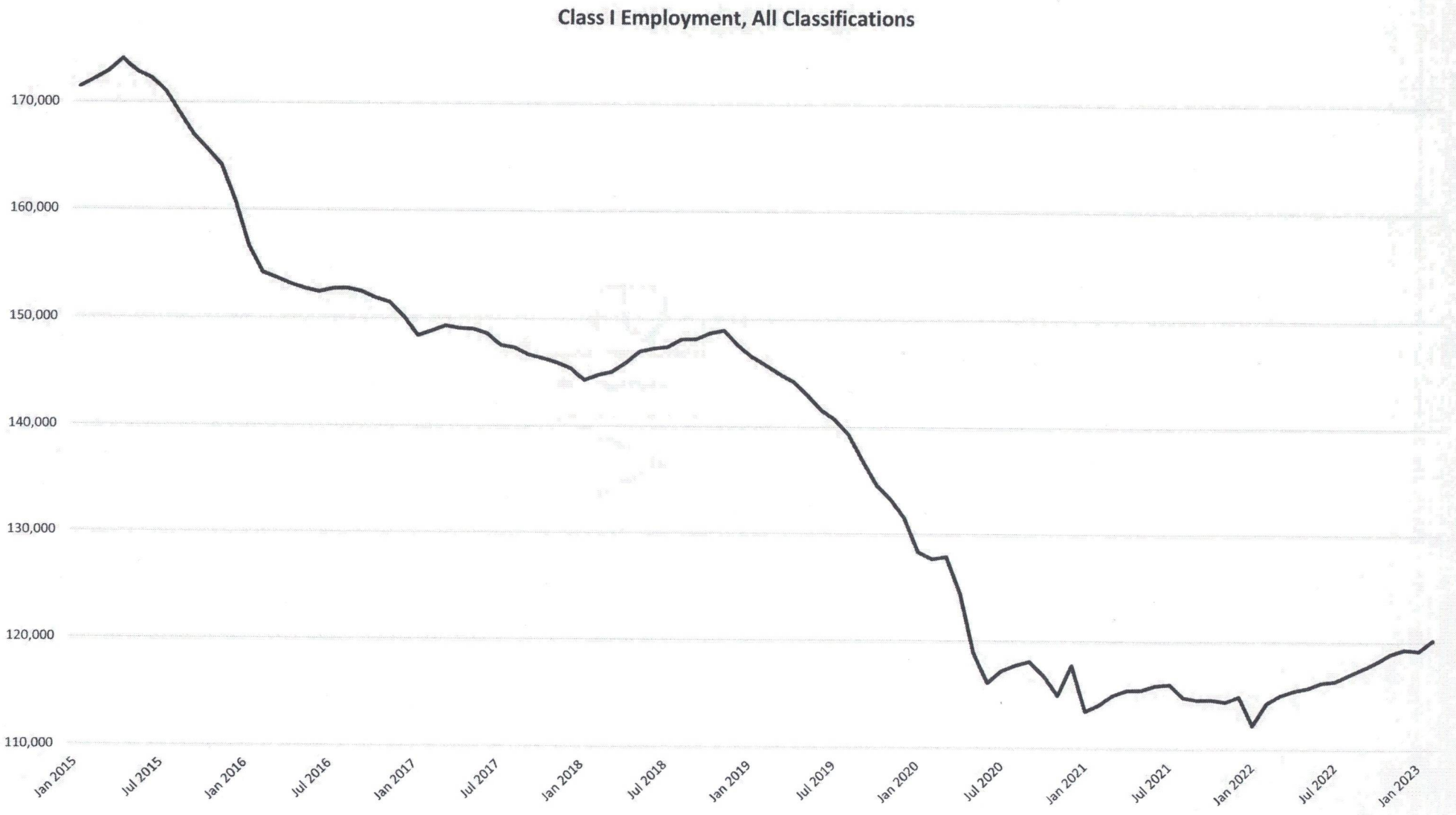

CSX Accidents on Yard Track
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of yard accidents / yard switching miles
Yard switching miles in ten millions
Accidents on yard track in tens

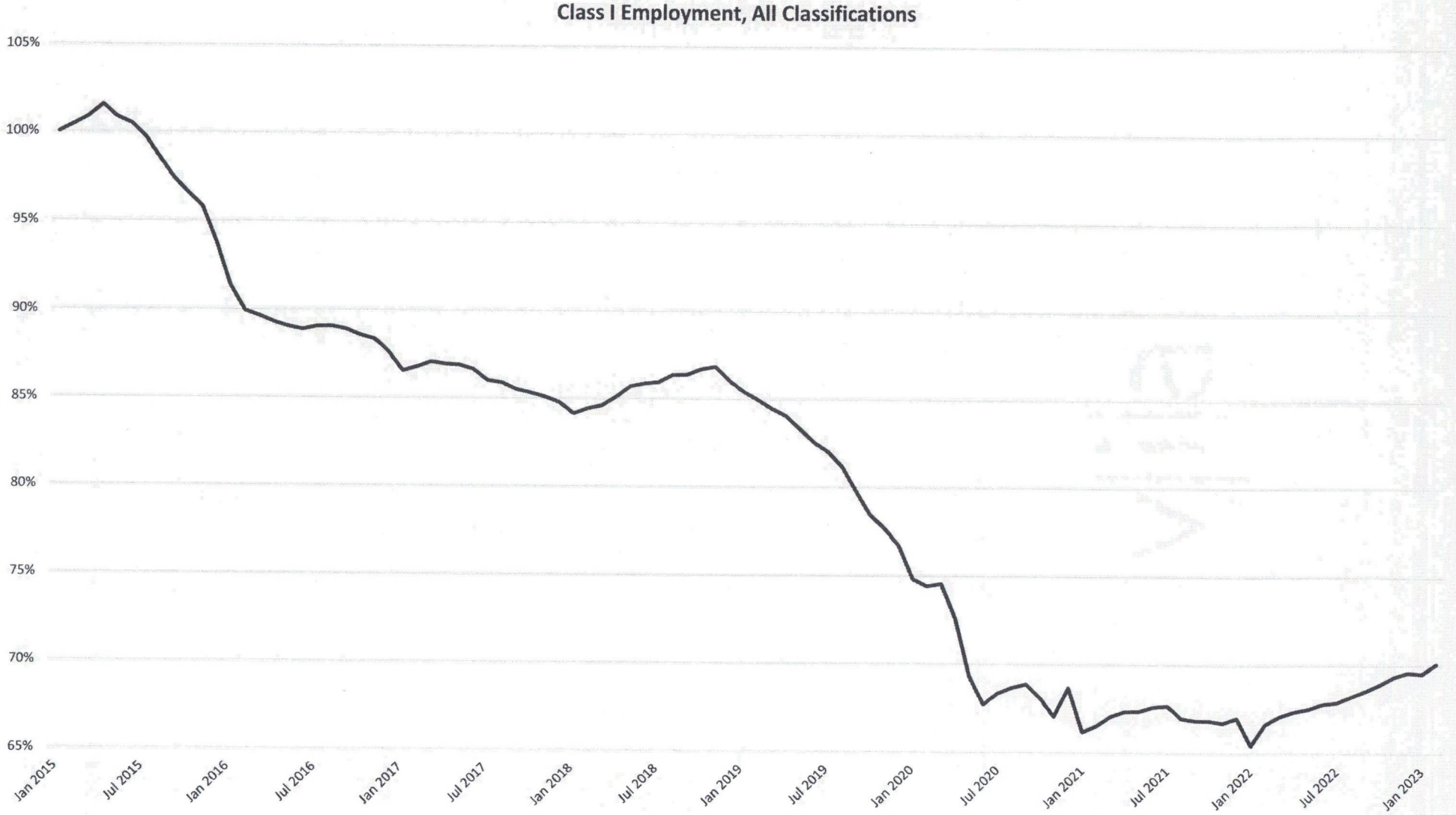

Norfolk Southern Total Accidents/Incidents
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Rate of Total Acc/Incs per mil train miles
Total train miles in ten millions of miles
Total accidents in hundreds


Norfolk Southern Accidents Not at Grade-Crossings
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Total train miles in ten millions of miles
Train Accidents (not at grade-crossings) in hundreds
Rate of Train Accidents per mil train miles


Norfolk Southern Accidents on Yard Track
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Accidents on yard track in tens
Yard switching miles in millions
Rate of yard accidents / yard switching miles

# ADDENDUM B


Class I Employment, All Classifications
170,000
160,000
150,000
140,000
130,000
120,000
110,000
Jan 2015
Jul 2015
Jan 2016
Jul 2016
Jan 2017
Jul 2017
Jan 2018
Jul 2018
Jan 2019
Jul 2019
Jan 2020
Jul 2020
Jan 2021
Jul 2021
Jan 2022
Jul 2022
Jan 2023


Class I Employment, All Classifications
105%
100%
95%
90%
85%
80%
75%
70%
65%
Jan 2015
Jul 2015
Jan 2016
Jul 2016
Jan 2017
Jul 2017
Jan 2018
Jul 2018
Jan 2019
Jul 2019
Jan 2020
Jul 2020
Jan 2021
Jul 2021
Jan 2022
Jul 2022
Jan 2023

**STB EMPLOYMENT DATA FOR BIG 4 CLASS I'S AND AMTRAK**
**8/23 VS. 8/22, 8/23 VS. 8/19, AND 8/23 VS. 8/16**

**BNSF:**

| | 8/23 | 8/22 | % Change 8/22 vs. 8/23 | 8/19 | % Change 8/19 vs. 8/23 | 8/16 | % Change 8/16 vs. 8/23 |
|---|---|---|---|---|---|---|---|
| Eng L300 | 8,187 | 8,137 | + 0.6% | 8,572 | - 4% | 9,890 | - 17% |
| M/E L400 | 6,581 | 6,383 | + 3% | 8,665 | - 24% | 7,937 | - 17% |
| T+E L600 | 15,674 | 14,601 | + 7% | 18,079 | - 13% | 17,042 | - 8% |
| Total | 30,442 | 29,121 | + 4% | 35,946 | - 15% | 34,869 | - 13% |

**CSXT:**

| | 8/23 | 8/22 | % Change 8/22 vs. 8/23 | 8/19 | % Change 8/19 vs. 8/23 | 8/16 | % Change 8/16 vs. 8/23 |
|---|---|---|---|---|---|---|---|
| Eng L300 | 5,126 | 4,866 | + 5% | 5,081 | + 1% | 6,054 | - 15% |
| M/E L400 | 2,615 | 2,398 | + 8% | 3,046 | - 14% | 4,165 | - 37% |
| T+E L600 | 7,691 | 7,188 | + 6% | 7,543 | + 2% | 9,564 | - 20% |
| Total | 15,432 | 14,452 | + 6% | 15,670 | - 2% | 19,783 | - 22% |

**NS:**

| | 8/23 | 8/22 | % Change 8/22 vs. 8/23 | 8/19 | % Change 8/19 vs. 8/23 | 8/16 | % Change 8/16 vs. 8/23 |
|---|---|---|---|---|---|---|---|
| Eng L300 | 4,444 | 4,282 | + 4% | 5,161 | - 14% | 5,602 | - 21% |
| M/E L400 | 2,672 | 2,408 | + 10% | 4,757 | - 44% | 5,540 | - 52% |
| T+E L600 | 8,873 | 8,196 | + 8% | 10,056 | - 12% | 11,196 | - 21% |
| Total | 15,989 | 14,866 | + 7% | 19,974 | - 20% | 22,338 | - 28% |

**UP:**

| | 8/23 | 8/22 | % Change 8/22 vs. 8/23 | 8/19 | % Change 8/19 vs. 8/23 | 8/16 | % Change 8/16 vs. 8/23 |
|---|---|---|---|---|---|---|---|
| Eng L300 | 8,105 | 8,071 | + .04% | 9,481 | - 14% | 1,111 | - 27% |
| M/E L400 | 4,934 | 4,840 | + 2% | 6,445 | - 23% | 8,993 | - 45% |
| T+E L600 | 14,704 | 13,802 | + 4% | 17,494 | - 16% | 17,397 | - 15% |
| Total | 27,743 | 26,713 | + 4% | 33,420 | - 17% | 37,501 | - 26% |

**Amtrak:**

| | 8/23 | 8/22 | % Change 8/22 vs. 8/23 | 8/19 | % Change 8/19 vs. 8/23 | 8/16 | % Change 8/16 vs. 8/23 |
|---|---|---|---|---|---|---|---|
| Eng L300 | 4,387 | 3,470 | + 21% | 3,147 | + 28% | 3,273 | +25% |
| M/E L400 | 4,883 | 4,125 | + 15% | 4,366 | + 11% | 4,735 | +3% |
| T+E L600 | 3,402 | 3,177 | + 6% | 3,308 | + 3% | 3,449 | -1% |
| Total | 12,672 | 10,772 | + 15% | 10,821 | + 15% | 11,457 | + 10% |

# ADDENDUM C

TWU Carmen

| TWU | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| CSX | 281 | 260 | 240 | 235 | 229 | 228 | 253 | 220 |
| NS | 601 | 484 | 430 | 376 | 280 | 333 | 335 | 228 |
| Conrail | 78 | 70 | 65 | 61 | 55 | 56 | 62 | 56 |
| | | | | | | | | |
| Total | 960 | 814 | 735 | 672 | 564 | 617 | 650 | 504 |

# ADDENDUM D

# HOT BOX DETECTOR NOT REPORTING

| HBD NOT REPORTING: 810 Boxes | | | TOTAL ACTIVE: 1584 Boxes | | | PERCENT NOT REPORTING: 51.14% | | | UPDATE: 01/[redacted]/2024 |
|---|---|---|---|---|---|---|---|---|---|
| HBD NAME | ST | Control Point ID | Track Num | HBD CIRC7 | HBD DEVICE ID | 30 days Train Passing (count) | Avg Per Day | Last 24hrs Train Passing (Count) | [redacted] | Days not Reporting |
| COSTA HBD | CA | RV028 | 2 | RV393 | 11723 | 835 | 27 | 0 | | 1 |
| MECCA HBD | CA | SP628 | 1 | SP669 | 7563 | 806 | 26 | 1 | | 0 |
| ARABY HBD | AZ | SP740 | 1 | SP556 | 6102 | 795 | 26 | 4 | | 0 |
| SMURR EAST HBD | AZ | SP852 | 1 | SP446 | 7763 | 793 | 26 | 2 | | 0 |
| MOHAWK HBD | AZ | SP797 | 1 | SP503 | 10104 | 790 | 26 | 4 | | 0 |
| STOVAL HBD | AZ | SP806 | 1 | SP490 | 7323 | 790 | 26 | 4 | | 0 |
| OFALLONS&VARNER HBD | NE | W901 | 1 | NX301 | 437626 | 777 | 25 | 4 | | 0 |
| STAFF HBD | IL | D093 | 1 | C 103 | 3662 | 740 | 24 | 1 | | 0 |
| AVERT HBD | MO | D163 | 1 | C 170 | 6424 | 728 | 24 | 1 | | 0 |
| QUARRY HBD | MO | D928 | 1 | C 137 | 7984 | 709 | 23 | 1 | | 0 |
| CASTLE HBD | CA | SP079 | 1 | JQ402 | 9144 | 647 | 21 | 2 | | 0 |
| LIVERPOOL HBD | TX | H330 | 1 | B 329 | 175 | 640 | 21 | 1 | | 0 |
| HONDO HBD | TX | SA259 | 1 | SO267 | 435263 | 632 | 21 | 2 | | 0 |
| PAOLA HBD | KS | V323 | 1 | L 470 | 5785 | 628 | 20 | 2 | | 0 |
| GRANGER HBD | WY | G842 | 1 | WX844H | 302 | 624 | 20 | 2 | | 0 |
| NOLTE HBD | TX | SA183 | 1 | SO191 | 4002 | 609 | 20 | 3 | | 0 |
| WOODSBORO HBD | TX | J179 | 1 | B 178 | 8904 | 591 | 19 | 1 | | 0 |
| BROWNIE HBD | TX | H339 | 1 | B 340 | 3902 | 590 | 19 | 2 | | 0 |
| QUINTON HBD | OR | S119 | 1 | OX654 | 8585 | 586 | 19 | 1 | | 0 |
| COLFRED HBD | AZ | SP786 | 2 | SP507 | 429823 | 585 | 19 | 3 | | 0 |
| EAST DODSON HBD | OR | S037 | 1 | OX738 | 411 | 578 | 19 | 2 | | 0 |
| ROCKWOOD JCT HBD | IL | D069 | 1 | C 077H | 6003 | 566 | 18 | 0 | | 1 |
| KELKER, CO | | 10050343 | 0 | | 437125 | 556 | 18 | 3 | | 0 |
| LILLIS HBD | KS | Z121 | 1 | KX123 | 127 | 553 | 18 | 2 | | 0 |
| MARSHALL HBD | TX | R062 | 1 | TP062 | 742 | 551 | 18 | 2 | | 0 |

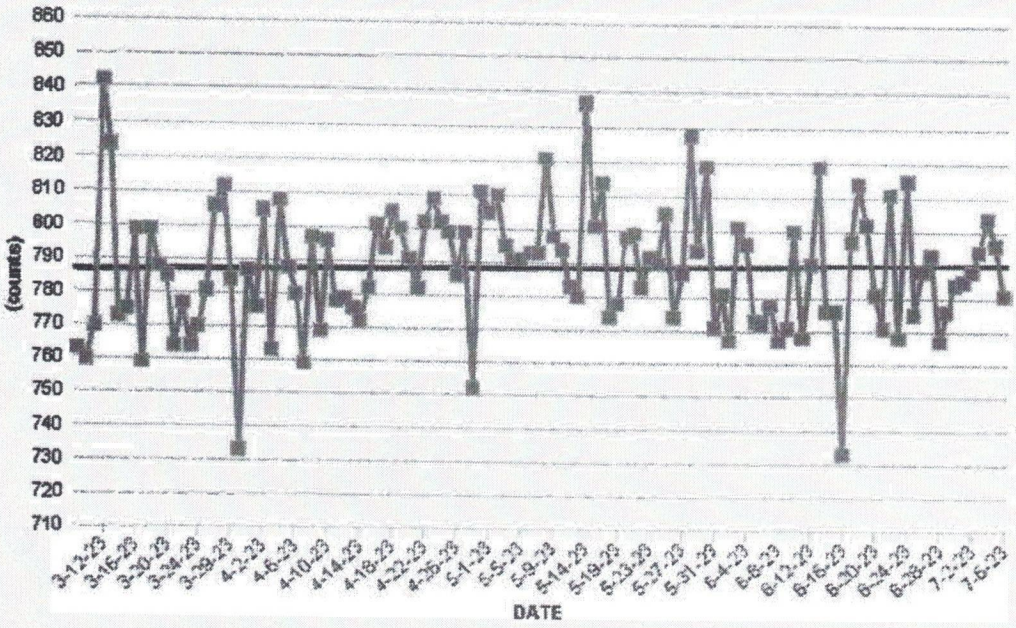
# HBD NOT REPORTING

[redacted]

HBD NOT REPORTING | INTERMITTENT WRONG DIR | REPORTING WRONG DIR
COMPARE WITH TIMETABLES

CURRENT | HISTORY

## HOT BOX DETECTOR NOT REPORTING

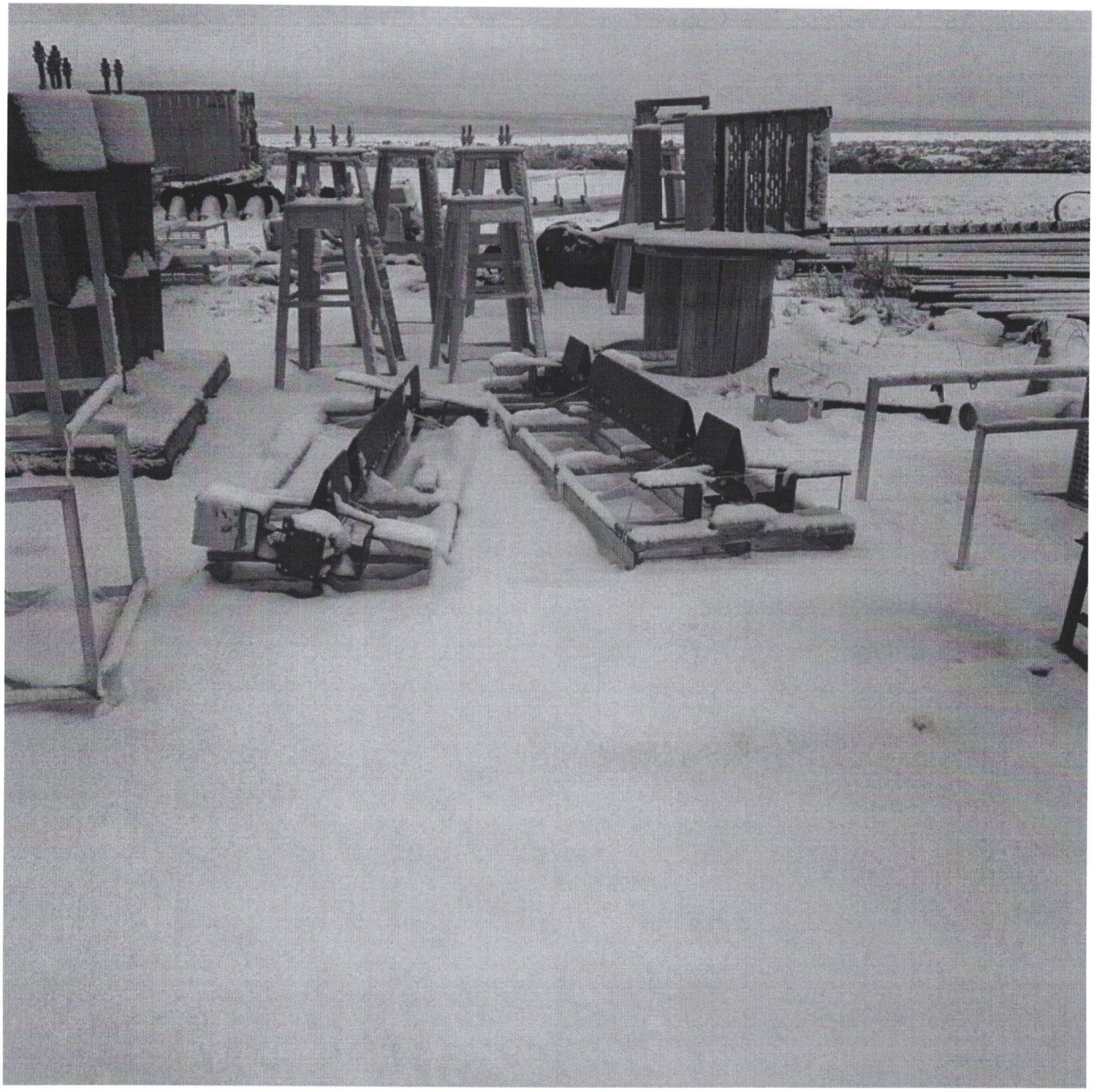


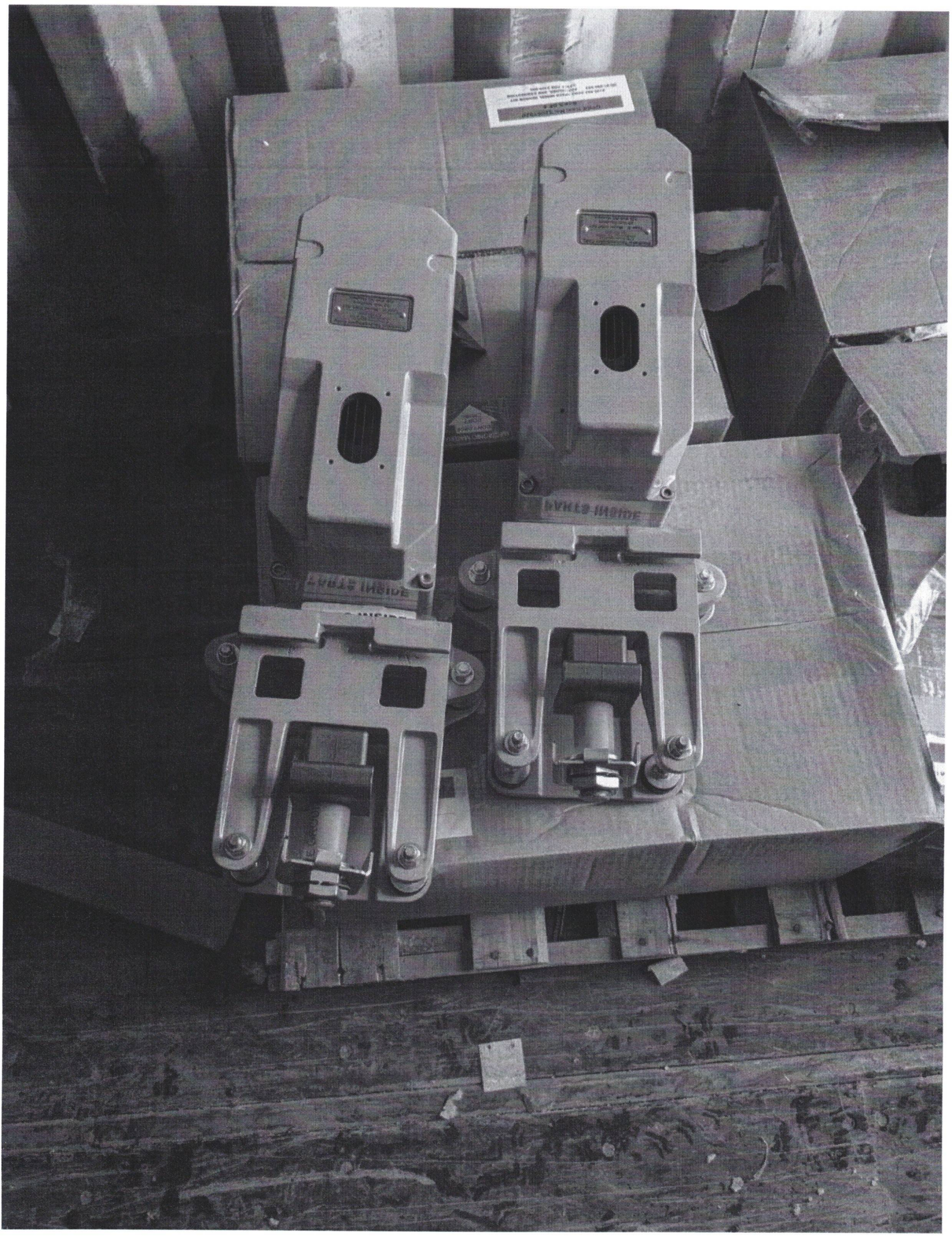
# HOT BOX DETECTOR NOT REPORTING

**HBD NOT REPORTING: 781 Boxes** **TOTAL ACTIVE: 1581 Boxes** **PERCENT NOT REPORTING: 49.40%**

| HBD NAME | ST | Control Point ID | Track | HBD CIRC7 | HBD DEVICE ID | 30 days Train Passing | Avg Per | Last 24hrs Train Passing | Last Report |
|---|---|---|---|---|---|---|---|---|---|
| MECCA HBD | CA | SP628 | 1 | SP669 | 7563 | 882 | 29 | 3 | 7/6/2( |
| ARABY HBD | AZ | SP740 | 1 | SP556 | 6102 | 858 | 28 | 2 | 7/6/2( |
| MOHAWK HBD | AZ | SP797 | 1 | SP503 | 10104 | 846 | 28 | 1 | 7/6/2( |
| STOVAL HBD | AZ | SP806 | 1 | SP490 | 7323 | 845 | 28 | 1 | 7/6/2( |
| SMURR EAST HBD | AZ | SP852 | 1 | SP446 | 7763 | 845 | 28 | 2 | 7/6/2( |
| STAFF HBD | IL | D093 | 1 | C 103 | 3662 | 843 | 28 | 1 | 7/6/2( |
| COSTA HBD | CA | RV028 | 2 | RV393 | 11723 | 837 | 27 | 2 | 7/6/2( |
| AVERT HBD | MO | D163 | 1 | C 170 | 6424 | 835 | 27 | 0 | 7/5/20 |
| OFALLONS&VARNER HBD | NE | W901 | 1 | NX301 | 437626 | 818 | 27 | 2 | 7/6/2( |
| QUARRY HBD | MO | D928 | 1 | C 137 | 7984 | 805 | 26 | 0 | 7/5/20 |
| QUARRY HBD | MO | D928 | 1 | C 137 | 7984 | 805 | 26 | 0 | 7/5/20 |
| NOLTE HBD | TX | SA183 | 1 | SO191 | 4002 | 746 | 24 | 3 | 7/6/2( |
| CASTLE HBD | CA | SP079 | 1 | JQ402 | 9144 | 744 | 24 | 3 | 7/6/2( |
| ESCHINGER HBD | CA | SP056 | 1 | JQ425 | 2282 | 732 | 24 | 2 | 7/6/2( |
| HONDO HBD | TX | SA259 | 1 | SO267 | 435263 | 702 | 23 | 2 | 7/6/2( |
| ROCKWOOD JCT HBD | IL | D069 | 1 | C 077H | 6003 | 683 | 22 | 0 | 7/5/20: |
| KINGSBURY WEST HBD | TX | SA170 | 1 | SO170 | 8986 | 681 | 22 | 3 | 7/6/2( |
| WITHERSPOON HBD | AR | A907 | 1 | X 407 | 4983 | 681 | 22 | 1 | 7/6/2( |
| WAELDER HBD | TX | SA126 | 1 | SO126 | 6022 | 659 | 21 | 4 | 7/6/2( |
| LIVERPOOL HBD | TX | H330 | 1 | B 329 | 175 | 653 | 21 | 0 | 7/5/20: |
| GRANGER HBD | WY | G842 | 1 | WX844H | 302 | 652 | 21 | 2 | 7/6/2( |
| HARWOOD HBD | TX | SA141 | 1 | SO143H | 10283 | 651 | 21 | 4 | 7/6/2( |
| OPTIC HBD | NE | B183 | 1 | NX183 | 290 | 648 | 21 | 3 | 7/6/2( |
| PRESCOTT HBD | AR | A437 | 1 | X 441 | 48 | 640 | 21 | 2 | 7/6/2( |
| PRESCOTT HBD | AR | A437 | 1 | X 441 | 48 | 640 | 21 | 2 | 7/6/2( |
| BENTON HBD | WY | W673 | 2 | WX673 | 95 | 613 | 20 | 0 | 7/5/20: |
| NEELYVILLE HBD | MO | Y183 | 1 | X 184 | 52 | 610 | 20 | 3 | 7/6/20 |
| ISER HBD | TX | SA776 | 1 | TP809 | 8083 | 609 | 20 | 2 | 7/6/20 |
| TORINILLO HBD | TX | SA789 | 1 | TP822 | 8123 | 607 | 20 | 1 | 7/6/20 |
| MCNARY HBD | TX | SA766 | 1 | TP798 | 8183 | 606 | 20 | 3 | 7/6/20 |
| CLINT HBD | TX | SA811 | 1 | TP842 | 3422 | 604 | 20 | 2 | 7/6/20 |

# ADDENDUM E





RCL Wiring, LP

T167068

W/O:

67068

DATE:
08/29/2023

CONTAINER:
BSW-4398

WIRE

099-0401
5010'

099-1243
6070'

099-4607
2100'

MISC PALLET

SMART SCAN
520-0192
QTY-1

# ADDENDUM F

| CARRIER | 2015 LOCOMOTIVES | 2015 CARS | 2019 LOCOMOTIVES | 2019 CARS | 2022 LOCOMOTIVES |
|---|---|---|---|---|---|
| BNSF | 8,000 | 77,000 | 8,000 | 70,000 | 7,500 |
| UP | 8,464 | 66,863 | 7,691 | 56,876 | 7,338 |
| CSX | 4,463 | 66,386 | 3,561 | 51,498 | 3,608 |
| NS | 4,353 | 76,641 | 3,906 | 50,553 | 3,190 |
| CN | 2,180 | 63,913 | 2,398 | 64,607 | 2,351 |
| CP | 1,549 | 39,420 | 1,379 | 35,268 | 1,366 |
| KCS | 1,044 | 21,331 | 949 | 17,747 | 1,006 |
| Total | 30,053 | 411,554 | 27,884 | 346,549 | 26,359 |

Note 1: All years use December 31st date for respective 10-K reporting year (e.g., December 31, 2015) and % change is 2015 vs 2022.
Note 2: Data includes all reported locomotives and cars in US & CA for CN & CP.

| 2022 CARS | % Change - Locomotives | % Change - Cars |
|---|---|---|
| 68,000 | -6.3% | -11.7% |
| 56,379 | -13.3% | -15.7% |
| 47,024 | -19.2% | -29.2% |
| 40,470 | -26.7% | -47.2% |
| 56,469 | 7.8% | -11.6% |
| 34,973 | -11.8% | -11.3% |
| 17,339 | -3.6% | -18.7% |
| 320,654 | -12.3% | -22.1% |

| 2015 Shop Craft EE Count | 2015 LOCOMOTIVES | 2015 CARS | 2022 Shop Craft EE Count | 2022 LOCOMOTIVES | 2022 CARS |
|---|---|---|---|---|---|
| 31,004 | 30,053 | 411,554 | 17,820 | 26,359 | 320,654 |
| ***Shop Craft EE Ratio*** | *1.032* | *0.075* | | *0.676* | *0.0556* |

| % Change EE Count | % Change Locomotives | % Change Cars | % EE Ratio to Loco. | % EE Ratio to Cars |
|---|---|---|---|---|
| -43% | -12% | -22% | -34% | -26% |

# ADDENDUM G

## BIG 4 CLASS I TRACKAGE (FROM R-1 SCHED 700-TOTAL)

## AND ENGINEERING DEPARTMENT EMPLOYEES

| Carrier | Total Track | STB Ement Reports L300 | Miles of Track/Eee | BMWED members | Miles of Track/Eee | BRS member | Miles of Track/Eee |
|---|---|---|---|---|---|---|---|
| BNSF | | | | | | | |
| 2016 | 53,115 | 9,890 | 5.37 | 7,417 | 7.16 | 2,262 | 23.5 |
| 2019 | 54,017 | 8,572 | 6.30 | 6,471 | 8.34 | 2,150 | 25.1 |
| 2022 | 54,806 | 8,173 | 6.73 | 5,798 | 9.45 | 1,907 | 28.7 |
| CSXT | | | | | | | |
| 2016 | 36,863 | 6,054 | 6.09 | 4,505 | 8.18 | 1,938 | 19.0 |
| 2019 | 36,030 | 5,081 | 7.09 | 3,917 | 9.19 | 1,580 | 22.8 |
| 2022 | 35,701 | 4,866 | 7.34 | 3,881 | 9.19 | 1,400 | 25.5 |
| NSR | | | | | | | |
| 2016 | 35,615 | 5,602 | 6.36 | 3,677 | 9.68 | 1,498 | 23.7 |
| 2019 | 35,592 | 5,161 | 6.89 | 3,401 | 10.4 | 1,326 | 26.8 |
| 2022 | 35,064 | 4,282 | 8.19 | 2,882 | 12.1 | 1,026 | 34.2 |
| UP | | | | | | | |
| 2016 | 51,500 | 11,111 | 4.63 | 7,980 | 6.45 | 2,557 | 20.1 |
| 2019 | 51,743 | 9,481 | 5.45 | 6,966 | 7.42 | 2,127 | 24.3 |
| 2022 | 51,954 | 8,071 | 6.43 | 6,034 | 8.61 | 1,918 | 27.1 |