BROTHERHOOD OF RAILROAD CARMEN DIVISION
INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS
INTERNATIONAL BROTHERHOOD OF BOILERMAKERS
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
NATIONAL CONFERENCE OF FIREMEN AND OILERS, SEIU
SHEET METAL AIR RAIL AND TRANSPORTATION WORKERS' INTERNATIONAL
TRANSPORTATION COMMUNICATIONS INTERNATIONAL UNION
TRANSPORT WORKERS UNION OF AMERICA

RAIL LABOR UNIONS' REPORT:

A FIVE-PRONGED APPROACH TO IMPROVE INDUSTRY SAFETY AND SERVICE RELIABILITY FOR CLASS I FREIGHT RAILROADS

The railroad industry is on the precipice of a self-made disaster. This will be the outcome of the increasingly dangerous trends of locomotive and equipment failures caused by the freight railroads' cost-cutting business model (known as "precision scheduled railroading" or "PSR"), a profit model that totally disregards their obligations to inspect, maintain, service, and repair their owned and leased locomotives and rail cars with trained and qualified Shop Craft workers under numerous existing federal safety regulations including but not limited to 49 CFR Parts 215, 216, 218, 221, 223, 224, 229, 231, 232 and 243. This set of disasters are being caused by a "market failure", the classic economic definition coined by Adam Smith in 1776 to which every business and government agency subscribes.

A "market failure" is the inefficient distribution of goods and services in the "free market" due to factors causing imbalance or disruption. Imbalances or disruptions should be analyzed to determine if government intervention is appropriate. Some would suggest that the market failure of the freight railroads is the result of their duopolistic structure that exists today, resulting from the consolidation of industry. But the existence of a duopoly itself is not necessarily a market failure to justify intervention. Rather, a review of industry data regarding the freight rail industry's conduct and performance is necessary to intelligently determine if there has been a market failure. We submit that a review of the class I freight railroad industry data from this lens leads to the conclusion there is a market failure and, therefore, that actions be taken by appropriate regulating agencies to remedy the market failure.

In this context, when first implementing PSR the railroads promised regulatory agencies, customers, and consumers that class I freight railroad shipping services would improve exponentially. But what happened instead is that the Class I freight railroads made safety and reliable shipping services secondary to enable record-making profits to be distributed to activist hedge fund investors and shareholders in the form of dividends and stock buyback bonanzas. Indeed, the Class I freight railroads are fixated on "maximizing" profits - *instead of improving their services* - through the elimination of "waste" and "maximizing the use of their assets". What this means in practical terms, is that the railroads placed numerous train sets in storage while they over-utilize a selection of their other train sets for (lackluster and unreliable) services while simultaneously ignoring and deferring critical inspections, maintenance, services, and repairs on all train sets. Under PSR, the railroads slashed their skilled Shop Crafts workforce to a level that is inadequate for properly inspecting, maintaining, servicing, and repairing all the railroads' trainsets in accordance with federal regulations. Furthermore, even when Shop Craft employees are permitted to perform their skilled trade, the railroads pressure workers to ignore defects and defer necessary inspections, services, maintenance, and repairs required under the regulations and which are critical for the safe operation of trains across the Class I's rail infrastructure network.

As a result of their cost-cutting business model, the freight railroads' services have faltered repeatedly, and the safety of the railroads' operations continue to decline. The railroads' service and safety failure were the subject of numerous public hearings by the Surface and Transportation Board (STB) and Congress. It was the subject of volumes of news reports across the media. In plainest terms, the railroads' cost-cutting business model is a blatant and total disregard to their obligations to inspect, maintain, service, and repair their owned and leased fleets under existing federal safety regulations 49 CFR Parts 215, 216, 218, 221, 223, 224, 229, 231, 232 and 243. The railroads' unsafe and unsustainable operating model, as well as its defiance of regulations, should not be permitted to continue.

Accordingly, as the regulatory agency responsible for the safety of the railroad industry, the Federal Railroad Administration (FRA) and the Surface Transportation Board (STB) must restore safety to the freight railroad industry, the safety of our communities and natural resources

where the railroads operate, and improve freight railroad services, by swiftly taking the following five actions:

1) Establish and implement uniform model training, qualifications and certification program under 49 CFR Part 243 ("Part 243") and that would apply to all class I freight railroads and which must be completed by all class I freight railroad workers that perform 49 CFR Parts 215, 216, 218, 221, 223, 224, 229, 231 and 232 covered inspection, service, maintenance and repair work ("Shop Craft Work") directly for the freight railroads. This model training, qualifications and certification program must also apply to all manufacturers, remanufacturers, contractors, and subcontractors that perform such shop craft work as currently required under Part 243.

2) Establish, implement, and enforce an Adequacy of Workforce Standard across the Class I freight railroad industry that always ensures there is an adequate workforce with the skills necessary to fulfill the demands of the freight rail industry in the safest and most reliable fashion possible.

3) Carry out stronger enforcement of the safety regulations and standards through conducting more unplanned focus inspections as well as random and scheduled safety audits of the class I railroads' operations for ensuring compliance with CFR 49 Sections 215, 216, 218, 221, 223, 224, 229, 231 and 232, as well as compliance with training, qualifications, and certification under Part 243.

4) Carry out the disqualification of railroad managers under 49 CFR Part 209.301.

5) Eliminate loopholes under existing federal regulations which the railroads exploit to maximize profits rather than ensure safety and reliable services.

Our proposed reforms are based upon two remarkably simple statutory directives. First, that these proposed reforms will ensure that the FRA fulfills its obligation and mission "…to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future."[1] Second, that the STB fulfills its obligation and mission that ensures that the railroads fulfill their common carrier obligations to customers and that the carriers conform to the assurances of performances that they made in obtaining authority to merge and which resulted in the 6 mega-carriers (and geographical railroad duopolies) we have now, which is the promise and obligation to provide our country with safer, more reliable rail shipping services.

[1] https://railroads.dot.gov/about-fra/about-fra#:~:text=Mission,now%20and%20in%20the%20future.

What follows is a brief overview of: what is the railroads' cost-cutting business model and how it was carried out without opposition by the general public and regulatory agencies; who the freight railroads' shop craft Employees are, a general description of type of work that they perform and under what controlling regulations; a historical summary of how the freight railroads functioned and carried out training *prior* to the implementation of their cost-cutting business model; how the freight railroads function and carry out training since implementing their cost-cutting business model; a brief overview of existing Part 243 requirements; a review of our proposed TRAINS Model Uniform Training Program and the Adequacy of Workforce Freight Railroad Industry Standard. This information is necessary to fully understand the currently threatened status of our class I freight railroad industry and why the FRA must take the necessary actions to restore freight railroad safety and services for our nation.

Precision Scheduled Railroading or "PSR" is an alleged service model utilized by the class I freight railroads[2] to purportedly streamline their services and operations. But to say it is a service model is very misleading. In its simplest form, PSR is a cost-cutting business model with the provincial focus of maximizing profits for shareholders. Nothing more, nothing less. Profits are "maximized" in a variety of ways, but primarily through providing services to the most profitable rail customers[3] and through the elimination of so-called "waste" by "maximizing" the use of its "assets", which are its equipment and its employees. What this means in plain terms, with respect to service, is that the railroads refuse to provide services to all its existing or potential customers – the railroads only provide service to its highest paying customers, often referred to as "premium customers". The railroads also tack on the equivalent of "junk fees" – known as demurrage fees – when rail cars sit in yards and storage tracks during service failures and service embargoes. What this means with respect to asset utilization is that the railroads remove several of their locomotives from service and place them in storage – known as "mothballing" – and utilize these pieces of equipment that remain in service to their maximum capacity and beyond through running goliath length trains allegedly on a "precise" time. It also means that the railroads slash their workforce to an inadequate size, redistributing critical responsibilities back onto the existing workforce that

[2] While BNSF has not formally adopted PSR, the reduction of employees since 2015 is indicative of BNSF embracing a basic tenet of the PSR business model, which is eliminating employees.

[3] Some freight railroads have informally created a classification system for the profitability of their customers, referring to the most profitable as "premium customers".

remains. The Workers are often pushed to ignore findings of defects during their inspections, maintenance, servicing, and repairs – if they are even allowed to perform such work at all.

If there is any question whether PSR is a cost-cutting, profit maximizing business model, numerous Surface Transportation Board hearings documented the class I freight railroads' lack of adequate service to customers. These hearings evidenced the facts that UP devised a scheme of using embargoes to delay or deny customers shipping services, while simultaneously charging these same customers demurrage fees for the very delays that the railroad had created. In fact, the STB was forced to intervene on multiple occasions and order UP to provide shipping services to its customers, including Sanimax, Foster Farms and NTEC. What became obvious during these hearings was that the class I freight railroads were defying their regulatory and statutory obligations of providing safe, reliable shipping services. Said another way, PSR was not implemented as a service model but a profit maximizing business model.

So, how did the freight railroads get away with this? The railroads can defy their regulatory and statutory obligations through two means. First, through using universally accepted business jargon, calling it a "service operating model". More specifically, the railroads gave their business operating model an anodyne name, labeling it as "Precision Scheduled Railroading" or "PSR" as it is widely known. Second, the railroads to flout their regulatory and statutory obligations through the regulatory agencies' inaction and enforcement of existing standards, as well as the lack of forming new standards for the industry as it exists today. By the end of 1967, there were 76 class I railroads in America. Many of these freight railroads often had their own set of tracks running through the same territories as their fellow competitor railroad(s). Shipping by freight railroad was also beginning to lose "market share" to trucking, and several of the freight railroads struggled to make profits. And so, the industry began merging and abandoning rail lines, ultimately resulting in 39 class I freight railroads by the end of 1980. But the railroads continued to allege that they were too stringently regulated by the government, and that they continued to struggle to make enough profits in such a competitive market. On October 14, 1980, the Harley O. Staggers Rail Act ("Staggers") was passed, resulting in sweeping reforms to the freight railroad industry. One of those reforms it created more expedited pathways for the railroads to abandon lines deemed

non-profitable and marginally profitable, to sell off parts of their systems to non-railroad companies ("non-carriers"), and to restructure, merge and consolidate their operations.

Since the passage of Staggers some 43 years ago, only six (6) class I freight railroads in the U.S. remain, and they are on a two decades' long run of record profits, which the highest of those record profits piling up since the implementation of PSR in late 2015. Though the footprint and foundation of the industry changed from scattered and shaky to concentrated and powerful, the regulating industries did not take sufficient actions to genuinely analyze the industry as it exists today and take actions that correspond for safety and performance accordingly.

In this connection, the Rail Safety Improvement Act of 2008 required that each railroad or contractor develop and submit training programs for safety-sensitive positions. In 2014, the FRA issued a notice of petition for rulemaking regarding such matter in order to go through the process of establishing a national minimum standard of training and qualification for all safety-sensitive positions within the railroad industry, 49 CFR 243 – Training, Qualification, and Oversight for Safety-Related Railroad Employees. During the rule-making process, the FRA had the foresight to suggest that the railroads adopt a "model program" – a "universal training and qualification program" – that the railroads could all utilize. A national standard was adopted, hence, 49 CFR 243, and it was implemented beginning on January 1, 2019. But the freight railroads fought the adoption of such a *universal, model program* that would apply across all class I freight railroads. But the freight railroads are not living up to the existing 243 standard. Furthermore, a review of the class I freight railroads' annual submissions for 243 reveals that each training and qualification program varies and has weaknesses in the training. Moreover, and more concerning, is that a site visit to the freight railroads' shops would reveal that the freight railroads are not fulfilling the existing minimum standards of 243. These weaknesses must be addressed, through adoption of superior, national level of qualifications and training for each respective Shop Craft trade, to bring the training to a level necessary for Shop Craft employees to perform their skilled trade properly and most safely.

Who Are Shop Craft Workers and What Do They Do?

Eight (8) shopcraft unions[4] currently represent approximately 17,450 railroad Shop Crafts workers that are employed by six (6) class I freight railroad workers. Shop Craft Workers' duties vary to certain degrees across the crafts, but in simplest terms, they are the men and women responsible for ensuring that the railroads' locomotives, freight cars and field equipment remain in serviceable condition, through carrying out inspection, troubleshooting, service, repair and maintenance work that is subject to the safety standards of 49 CFR Parts 215, 216, 218, 221, 223, 224, 229, 231, 232. Shop Crafts' work is primarily performed in shops owned and operated by the railroads, as well as in the field, such as in rail yards and on the railroads' right of way near other tracks with live train traffic.

There are essentially two (2) general types of shop craft work performed, rail car inspection, service, and repairs (often called Car Department repairs) and locomotive inspection, maintenance, service, troubleshooting and repairs (often called Locomotive repairs) which are critical for the safe transportation of goods across the freight railroads' network. Car Department inspection, service, maintenance, and repairs are typically performed in car shops and on repair tracks ("RIP tracks") located in yards. However, Car Department work is also often performed out on main line tracks where trains have derailed, or where the wheel sets have failed. Car Department work typically entails the replacement of wheel sets, draft gears, cushioning units (which is like a soft-close drawer but for train car couplings), performing single car air brake tests, welding, cutting and fabricating work. Car Department employees must be knowledgeable of all the different types of rail cars, as there are at least twelve (12) different types of cars[5] utilized by many freight railroads, and the life cycle of rail cars varies substantially. Moreover, the components of the rail cars, which are critical for their safe operation, fail more frequently than

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[3] The eight (8) labor unions are, in alphabetical order: The Brotherhood of Railroad Carmen Division, TCU/IAM (BRC), the International Association of Machinists and Aerospace Workers (IAM) , the International Brotherhood of Boilermakers (IBB), the International Brotherhood of Electrical Workers (IBEW), the National Conference of Fireman and Oilers, Local 32BJ/SEIU (NCFO), the International Association of Sheet Metal, Air, Rail and Transportation Workers Mechanical Department (SMART MD), the Transportation Communications International Union (TCU) and the Transport Workers Union of America (TWU).

[5] Numerous types of freight rail cars can be found here at https://www.up.com/customers/track-record/tr181121_rail_car_types.htm.

the rail cars themselves. Accordingly, Car Department employees must possess expertise in the various components and equipment and their related tendencies both in function and failure.

The inspecting, troubleshooting, maintenance, servicing, and repairs of the freight railroads' locomotives is work typically performed in running repairs shops and back shops. Back shops are where locomotives are completely overhauled, engines are changed out, power assemblies are replaced, major components are rebuilt, and where locomotives with collision damage (such as from a derailment) or extensive fire damage are repaired. But locomotives spend most of their time in running repair shops, which are generally located in rail yards, where the work of periodic inspections, tests and locomotive systems calibrations, component change outs, servicing, fuel sand and water services are performed as well as several other types of work. There are numerous components to locomotives that are critical for their safe operation. In general terms, the expected life cycle for diesel-electric and electric locomotives is 25-30 years, with scheduled overhauls for the locomotives typically performed at 10 and 20 years. And the older the locomotives get, the more critical inspections, service, maintenance, and repair are for the locomotives to best and most reliably function. Again, all such repairs are performed in locomotive shops.

Given the complex nature of locomotives and train cars, it takes approximately three years (690 to 732 workdays) to complete an apprenticeship training program and thus become the equivalent of Car Department or Locomotive journeyperson[6], or what is otherwise known as a "Qualified Mechanical Inspector" or "QMI". To this point, the performance of locomotive inspections, troubleshooting, maintenance, service, and repair work must be performed by a QMI. A QMI is defined under in 49 CFR 229.5 as:

> "a person who has received instruction and training that includes "hands-on" experience (under appropriate supervision or apprenticeship) in one or more of the following functions: troubleshooting, inspection, testing, maintenance or repair of the specific locomotive equipment for which the person is assigned responsibility.

[6] Though it ordinarily takes at least 3 years to complete such training on the railroad, most skilled trades apprenticeship programs take 4-5 years to complete. Most Car Department and Locomotive Repair employees agree that an employee becomes most proficient in their respective railroad trade after five (5) years of training and on-the-job experience.

> This person shall also possess a current understanding of what is required to properly repair and maintain the locomotive equipment for which the person is assigned responsibility. Further, the qualified mechanical inspector shall be a person whose primary responsibility includes work generally consistent with the functions listed in this definition."

Herein lies one of the primary problems that must be addressed by the FRA. That is, **the class I freight railroad industry neither has nor provides a model training program that ensures that every Shop Craft worker, and supervisor, completes adequate practical on the job, classroom and testing training, qualification, and certification under truly qualified supervision**. Instead, ***each class I freight railroad has their own training program that is carried out on an ad hoc basis,*** and which is based on the railroads' interpretation and application of federal regulations, including Part 243, as well as the various provisions of collective bargaining agreements with the multiple Shop Craft Unions. And with the adoption of the PSR cost-cutting business model, the quality of training, safety and performance has only deteriorated. A brief explanation regarding how the class I freight railroads looked and operated prior to and following the adoption of PSR is necessary in order to fully understand the level of severity that currently exists in the class I freight railroad industry.

Class I Railroading for Shop Crafts Pre-PSR

As previously stated, the class I freight railroads began widespread adoption of their cost-cutting business model in late 2015. Immediately prior to this wide-spread adoption of PSR, there were a total of seven (7) class I freight railroads that employed approximately 28,759 Shop Craft workers[7], 17,901 of which were Locomotive Repair and Maintenance employees[8], 10,056 were Car Department Repair and Maintenance Employees[9] and 802 were clerks[10] that were responsible for expediting parts to the Locomotive and Car Department repair employees. The 28,759 Locomotive and Car Department Repair and Maintenance Employees were responsible for the everyday service, inspection, maintenance, and repair of the railroads 27,035 locomotives and

[7]NRLC Data basis.
[8] Includes employees represented by IAM, IBEW, IBB, NCFO, SMART-MD.
[9] Includes employees represented by BRC and TWU.
[10] Includes employees represented by TCU.

331,510 freight cars that were in service[11]. To put this into context, ***there were .66 Locomotive Repair and Maintenance Employees to each locomotive in service and .03 Car Department Repair and Maintenance Employees to each freight car in service prior to the implementation of PSR***. Furthermore, approximately 55% of the class I's locomotives were built before the year 2000, while an additional approximately 16% were built between 2000-2004. In other words, over half of the carriers' locomotives were over 15 years old, or half-way through their expected life cycle, while another substantial portion was on the verge of reaching such life cycle stage.

"Rail traffic" is the general term used by the industry for measuring and forecasting railroad business, but two more specific units of measure referenced by the industry are "carloads" and "tonnage" or "tons". A "carload" is defined as "the quantity of freight required for application of carload rate. A car loaded to its weight or space capacity."[12] To be clear, not all carloads are equal, as some carloads require more materials to be loaded and shipped in order to reach "weight or space capacity" while other materials will reach the threshold at a lower number because of their density, consist, etc. Below is a chart that illustrates the number of carloads and tons of freight (in millions) that the class I freight railroads shipped across their network prior to their implementation of their cost-cutting business model:

2015	TOTAL
Revenue Carloads Originated	29,441,000
Revenue Ton Miles	1,748,000,000

While this chart is very simplified, the number of carloads and tonnage is many magnitudes beyond substantial. To put it into context, it is said to take over 100 years to count out loud to 1 billion, which means that it would take nearly 175 years to verbally count out loud 1,748,000,000 the revenue ton miles of freight that the class I freight railroads hauled in 2015. The train consists or length of the trains that were configured and which regularly hauled this substantial amount of freight at this time were much shorter than they are today. Indeed, a freight train that was slightly longer than one mile in length was considered the norm, and anything beyond that length was

[11] Calculation excludes clerk employees represented by TCU.
[12] https://www.csx.com/index.cfm/about-us/company-overview/railroad-dictionary/?i=C

viewed as a rather long freight train. Moreover, there were more active locomotives and freight rail cars in service at that time to move the freight.

Regarding measurements of safety performance, the FRA has three useful references or units of measure for gauging the safety performance of the class I freight railroads, which are "Rate of Total Accidents/Incidents per Million Train Miles", "Rate of Employee On Duty per 200,000 Hours", and "Rate of Train Accidents per Million Train Miles". These three units of measure are indicative of the overall safety of the railroads operations *for those accidents/incidents that are reported to the FRA*[13]. Below is a chart illustrating the overall safety performance of the class I freight railroads in 2015:

	2015
Rate of Total Accidents/Incidents per Million Train Miles	9.845
Rate of Employee On Duty per 200,000 Hours	1.119
Rate of Train Accidents per Million Train Miles	2.533

During this same period, safety, in the form of avoiding personal injuries and accidents, was more of the cultural focus at that time on the freight railroads. The railroads had widespread practices and policies of encouraging and requiring employees to perform warm-ups and both written and verbal job briefings before starting work to avoid workplace hazards and injuries. Several of the Labor Unions also had collective bargaining agreements with the freight railroads that contained bargaining unit positions with duties and responsibilities of promoting the safest work environment possible through best safety practices encourage through safety audits, peer-to-peer coaching and counseling, and other safety-oriented techniques. The railroads would also more frequently engage with the Labor Unions and the safety-focused bargaining unit positions to evaluate and adjust the programs to improve safety. In fact, there is not a moment prior to PSR

[13] The railroads are required to report to the FRA all rail equipment accidents/incidents that exceed the FRA's monetary reporting threshold. The monetary reporting threshold in 2023 is $11,500. We submit that there are numerous accidents/incidents that transpire in rail yards and which are never reported to the FRA. Therefore, we submit that these numbers are low if there was a more honest and accurate reporting of accidents/incidents by the freight railroads.

where Rail Labor can recall the freight rail carriers suggesting eliminating their safety programs or safety-related positions.

With respect to training, certification, and qualification prior to the adoption of PSR, the class I railroads had training, certification and apprenticeship programs for the Shop Crafts that were more rigorous to complete. As previously mentioned, each class I freight railroad's training program varied, but in general, they took anywhere from 690 to 732 days to successfully complete. Shop Craft employees were required to complete practical, "hands-on" on the job training coupled with mentoring, and various instructional and written training and exams. Furthermore, these training programs were most often carried out by carrier employed trainers that ordinarily came from the field, with years of service and experience in the respective skilled trade. The class I freight railroads' general training program requirements, as well as the duty of the trainers, were memorialized in collective bargaining agreements. In this connection, there was a considerably higher number of experienced and qualified Shop Craft trainers and QMIs employed by the class I freight railroads at that time.

Regarding the class I freight railroads' Shop Craft inspection, service, maintenance and repairs practices, such work was routinely performed by many more qualified Shop Craft Workers. Indeed, Shop Craft employees would often work in larger teams on certain projects in the locomotive shops, performing their respective skilled duties for which they were qualified to perform. For example, and with respect to Locomotive repairs, it was not uncommon for a team consisting of approximately three Machinists, one Sheet Metal Worker, two Electricians, one Boilermaker, one Hostler and one Hostler helper to perform and complete an annual periodic locomotive inspection and service. Alternatively, if the Shop Craft employees were not qualified, they would perform the work under the appropriate supervision and mentoring of a QMI who was often working on said team of Shop Craft employees. With respect to Car Department repairs, it was not unusual to work in a team of four (4) people to inspect a 100-car train. These four Carmen would each inspect one side of fifty (50) cars of the train, which would take approximately one (1) hour to complete the inspection consistent with the railroads' practice of taking five (5) minutes to inspect each rail car, and it would take additional time to complete any respective repairs. Furthermore, it was not uncommon for the railroad to maintain a stock of parts in a carrier-owned

and operated warehouse immediately adjacent to the locomotive and car shops. Employees in the parts warehouse would regularly deliver these stocked parts on an as-needed basis, to better expedite the service, maintenance, and repair processes.

The Shop Craft Unions acknowledge that prior to PSR, Shop Craft employees did indeed feel pressure from the railroads to complete their necessary work. However, we assert that there was not as much pressure from the railroads at that time to complete such work. Rather, *the workers and the railroads were more focused on completing their work at a higher level of quality rather than focusing on the expediency of the performance of work at a lesser standard of quality*. Indeed, one class I freight railroad used to have the guiding mantra, "***There is no job so important, and no service so urgent that we cannot take the time to perform our work safely***." plastered throughout its facilities and equipment across its system. Nevertheless, the salient point being that approximately 27,957 Shop Craft Employees felt pressure to maintain the class I freight railroads' locomotives at a higher standard in 2015.

Class I Railroading Since PSR

The class I freight railroads' operations, safety, and employment practices, including their training, qualification, and certification of Shop Craft employees, dramatically changed since the wide-spread adoption of PSR, especially with regards to safety. Most notably, the freight railroads gutted their safety programs and practices by abolishing several of the bargaining unit's safety positions. Many of the railroads even went so far as making losing propositions to the Labor Unions: "voluntarily decide" how many safety positions to abolish by "voluntarily agreeing" with the railroads on the reduced numbers of safety positions. The alternative to not "voluntarily agreeing" with the railroads was that the railroads would completely cancel the safety agreements and the related programs and benefits. Moreover, the railroads began discouraging employees from performing warms ups and job briefings, which are critical to preventing workplace injuries.

Notwithstanding the gutting of safety programs, practices and positions, the freight railroads slashed massive numbers of highly skilled workers from their ranks. ***The Shop Crafts alone have suffered an approximate 41% reduction in employees***, the largest reduction of all craft

employees in the class I freight railroad industry. As of the end of 2022, there were 16,947 Mechanical Department Employees[14], of which 10,601 are Locomotive Repair and Maintenance Employees[15], 5,779 are Car Repair and Maintenance Employees[16] and 567 are clerks[17] that are responsible for expediting parts to the Locomotive and Car Department repair employees. In other words, as of the end of 2022, the class I freight railroads have slashed 11,812 Shop Craft Employees from their ranks since implementing PSR, which is illustrated in the chart below:

YEAR END	TOTAL MECHANICAL EMPLOYEES	LOCOMOTIVE REPAIR EMPLOYEES	RAIL CAR REPAIR EMPLOYEES	CLERKS
2015	28,759	17,901	10,056	802
2022	16,947	10,056	5,779	567
DIFFERENCE #	***-11,812***	-7,845	-4,277	-235
DIFFERENCE %	*-41%*	*-44%*	*-43%*	*-29%*

Concurrent with the massive Shop Craft headcount reductions, the ***class I freight railroads reduced their in-service locomotive fleets by 13.5%***, from 27,035 locomotives ***to 23,395 locomotives***. The Shop Craft workers that survived these dramatic slashes are now responsible for inspecting, servicing, maintaining, and repairing ***the class I railroads' 23,395 locomotives and 242,395 freight rail cars that are in service[18]***. Said another way***, the railroads disproportionately slashed 41% of its Shop Craft employees from their ranks -11,812 workers- while only reducing their in-service locomotives fleet by only 13.5% or 3,640 locomotives and their in-service rail cars by 27% or 89,111 rail cars.*** The resulting ratio of Locomotive Repair Employees to locomotives is now ***.43 Shop Craft Employee to each class I carrier locomotive, or a 35% reduction in the ratio size of Locomotive Shop Craft Worker(s) to each carrier locomotive in service***. Moreover, approximately 60% of these locomotives are now over 20 years old or are 2/3s through their respective life cycle and hence, require more inspection, maintenance, service and repairs to operate must reliably. *The resulting ratio for Car Repair Employees to rail cars is now*

[14] NRLC Data basis.
[15] Includes employees represented by IAM, IBEW, IBB, NCFO, SMART-MD.
[16] Includes employees represented by BRC and TWU.
[17] Includes employees represented by TCU.
[18] R-1 year end data.

.024 Shop Craft Employees to each class I carrier rail car, or a 20% reduction in the ratio size of Car Repair Worker to each carrier rail car in service.

With respect to the class I freight railroads carloadings and tons, the numbers are equally notable as the staggering headcounts described above. Below is a chart that illustrates the number of carloads and tons of freight (in millions) that the class I freight railroads shipped across their network in calendar year 2022:

2022	TOTAL
Revenue Carloads Originated	26,572,000[19]
Revenue Ton Miles	1,571,000,000

In other words, the railroads have maintained approximate 2015 levels of business with 13.5% less locomotives of which two-thirds are two-thirds through their life cycle, with 41% less Shop Craft workers maintaining the equipment that is now pulling larger, heavier loads. To this point, it is the well-known fact that the freight railroads have dramatically expanded the length of their trains since implementing their cost-cutting business model. Freight trains are 1.5 miles long on the average now, while it is not unusual for freight trains to exceed three miles in length[20]. The immediate question that should come to mind is: *How could the class I freight railroads safely maintain their slightly reduced aging locomotive fleets and rail cars at a level that complies with federally mandated safety regulations with a workforce that has been cut by 41%*? We believe that the simple answer to that question is that the railroads cannot and are not maintaining their locomotives as required by federal regulations.

In support of our assertion, we invite your attention to a variety of data. The first and most telling of such are the various documents and communications involving BNSF management personnel instructing its Shop Craft employees to not perform ("defer") inspections and general maintenance on their locomotive fleet. In the initial correspondence dated September 2, 2021, BNSF management instructed its Shop Craft employees to only complete federal items only ("FIO") inspections on locomotives and defer all other inspections. To effectively carry out this

[19] STB data.
[20] GAO Report https://www.gao.gov/products/gao-19-443

scheme, BNSF management further provided detailed instructions on how employees were to complete general inspection and maintenance reports – **even if such work was not performed**. These instructions for the fictious reports were issued to avoid BNSF's computer system from generating a "defect" that would require the locomotive(s) to be "shopped" for additional inspection and maintenance. Approximately three weeks later, on September 21, 2021, BNSF management provided additional instructions, via email, requiring managers to be further complicit in their scheme and to "**Sign off the general maintenance items; they do not need to be performed**." These BNSF's documents make it very clear that: 1) BNSF does not believe it is necessary to perform general maintenance on its locomotives; 2) BNSF issued directives to its Shop Craft employees not to perform such work; and 3) BNSF instructed its management employees to engage in a scheme to falsify reports that are governed by federal regulations.

But BNSF's scheme did not stop there. Rather, on December 15, 2022, BNSF brazenly asked the FRA for carte blanche authority, via an "enforcement discretion", to temporarily relieve BNSF of its obligation to timely perform periodic inspections and annual tests for hundreds of its locomotives. BNSF alleged that a "winter storm" was the reasoning for the need of relief for not complying with timely completing federally mandated inspections (and service, maintenance, and repairs). The FRA ultimately granted BNSF's "enforcement discretion" request until January 14, 2022, even though the proper procedures for petitioning the FRA for such emergency waiver were not followed by BNSF.

BNSF then took their scheme to the next level by refusing to perform inspections and maintenance on their locomotive fleets. Indeed, on December 29, 2022, BNSF Management announced, via email, a new company policy/initiative of "zero overtime" for Shop Craft employees. BNSF's policy/initiative was deliberate in that it was going to save approximately $51,000,000 for their Mechanical (Shop Crafts) department. BNSF then further confirmed, in writing, that they had failed to properly inspect and maintain their locomotives because on January 5, 2023, BNSF provided several Shop Craft unions a notice of contracting out locomotive work. This notice clearly stated that BNSF needed to contract out regularly scheduled maintenance work on up to 30 locomotives per week for the next three to six months due to "…locomotive demand being beyond plan for over 12 months and early winter weather, resulting in a **higher-than-normal**

number of bad order locomotives on the road and in the shop." More concerningly, said notice further stated, that there was an "**unusually high out of service count and back log of scheduled maintenance events for nearly 1,000 locomotives which** "…**need their full maintenance completed**…**BNSF currently does not have the necessary manpower and shop capacity available on the property to perform this work** within the necessary time frame, as there is an immediate need to address the high number of bad order locomotives on the road and in the shop."

BNSF's own documents confirm that BNSF cut its Shop Craft employees too deep, that BNSF does not have the number of Shop Craft employees necessary to inspect, maintain, service and repair its locomotive fleets. Moreover, BNSF's own documents confirm that BNSF engaged in its deliberate scheme that is meant to "maximize" the use of their "locomotive assets" through deferring critical inspection, maintenance, service. But to be very clear, the locomotive fleet safety issues are not isolated only to BNSF. This is because the cost-cutting business model is what drives this type of business practice and all class I freight railroads have adopted this business model.

Indeed, the FRA's recent random inspection of Union Pacific's locomotives and train cars confirms this. In a letter dated September 8, 2023, FRA Administrator Amit Bose notified Union Pacific CEO and staunch PSR-supporter, Jim Vena and other top officials that the FRA's inspections ***identified federal defects*** of their freight cars and locomotives resulting in ratios of 19.93% for freight cars and ***72.69% for locomotives***. And, as noted within Administrator Bose's letter, Union Pacific showed an utter disregard for federal locomotive safety regulations as there has been no sense of urgency by Union Pacific to address locomotive and car defects. Furthermore, Administrator Bose pointed out that Union Pacific has less QMIs to inspect its locomotives and cars and raised concerns about the class I carrier's intentions to address these system-wide safety issues.

There can be no question that UP has no intention of addressing these system-wide safety issues of their locomotives and cars because CEO Vena is a staunch believer of the cost-cutting business model, and he is beholden to Wall Street hedge fund investors. Indeed, it was Soroban Capital Partners that ousted former CEO Lance Fritz and placed Mr. Vena at the helm of UP.

Moreover, with less than two weeks on the job as CEO, one of ***Mr. Vena's first orders of business was that he slashed an additional 94 Shop Craft positions from the UP workforce***. So, it should come as no surprise that there was a 72.69% defect rate on UP's locomotives, and it should come as no surprise that Mr. Vena responded to the FRA's findings with indignance and defiance. Mr. Vena responded to the FRA's letter inquiring what type of defects were found during the FRA's random inspections earlier this year. While this seems innocuous, it was nothing less than audacious in the face of disgrace and it is further divorced from the alleged guiding principles of PSR. As previously stated, the class I freight railroads' business operating model is called *precision scheduled railroading* or "PSR" and, as the title implies, the business model is allegedly premised upon *precisely operating a railroad*. The dictionary definition of "*defec*t" is "*an imperfection or abnormality that impairs quality, function, or utility*".[21] Therefore, it stands to reason that a railroad, with locomotive fleets that are riddled with volumes of defects absolutely cannot operate with precision. It is simply not possible, even with the smallest of defects because they ultimately have a ***cascading effect*** or create ***cascading failures***. That is, the smallest of defects trigger other events or failures that ultimately contribute to or cause larger defects, failures, and thus, disasters. This exact principle was espoused by UP CEO Vena to investors on September 12, 2023, when he stated:

> "When you're operating the railroad, you don't make one big mistake normally and you cause yourself to impact the system and you slow down and then you can't provide the service," "**What happens is you make a lot of small mistakes, and if you make small mistakes, they come back all of a sudden and add up and you wake up one day and you go, Wow**! So that's what I want to make sure that we're on top of."[22]

CEO Vena's words to investors do not match the reality of the FRA's recent audit findings, the numerous STB hearings about UP's unsatisfactory services, nor the reality of the ongoing safety issues and unsustainable risks that the cost-cutting business model causes to our nation's highly skilled Railroad Workers, our freight rail infrastructure, and the communities that these freight trains run through. Actions must be taken to improve safety and restore services to the industry.

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[21] https://www.merriam-webster.com/dictionary/defect

[22] https://apnews.com/article/union-pacific-ceo-jim-vena-railroad-23365ccd844a91a7ba9d0cfd6b36fe0b

How To Make Shop Crafts Work and the Railroad Industry Safer & Improve Rail Services: A Five-Pronged Approach

As previously stated, there are five actions that must be taken to restore safety to the freight railroad industry, the safety of our communities and natural resources where the railroads operate and improve services in the railroad industry.

Model Uniform Training Program

The first action that must be taken is for the FRA to initiate establishing and implementing a higher standard of training and qualifications, through a new model program tailored to fulfill industry demands of each respective trade that performs work falling under 49 CFR Parts 215, 216, 218, 221, 223, 224, 229, 231 and 232 covered inspection, service, maintenance and repair work under 49 CFR Part 243 and other regulations. A regulatory mandated training program should serve as the universal standard training program across the freight railroad industry. To be clear, such a training program must apply to all class I freight railroad shop craft employees, manufacturers, remanufacturers, contractors, and subcontractors that perform such shop craft work as currently required under Part 243.

Establishing regulatory mandated model training program provides a variety of benefits. First, establishing a higher standard of training, qualifying, and certifying creates a better workforce. Having a single, consistent standard that every Shop Craft employee must complete for their respective craft elevates the expertise and skillset of these critical employees. Second, when workers have elevated expertise and skills, they inherently know the best methods for most safely performing their duties. The most knowledgeable workers know how to do the job the right way and the right way is the safest way. Performing work the right and safest way will ultimately result in reduced injuries and accidents in the workplace. This will also reduce omissions in the performance of work, such as missing defects during inspections, service, maintenance, and repairs, etc. In other words, having the most expert and skilled employees in a safety-sensitive industry is essential to safe performance of work. Third, having a model program is easier to understand for all industry stakeholders – employees, employers, the FRA, manufacturers, etc. This will create consistency, which will result in efficiency because it will eliminate confusion

about various and nuanced training program requirements created by each railroad. It will also lend itself to better compliance as a regulation because there would be less confusion regarding training standards and industry best practices. This also lends itself to the FRA's review and enforcement of Part 243 to be focused on the continued refinement and improvement of quality of training and best practices across the industry. Having a well-known model program with higher standards will also deter prospective non-invested "market entrants" that view the industry as an opportunity to make a quick profit, rather than improve it. This is not meant to deter competition from within the industry, but to set a clear expectation regarding the standard of quality for those who desire to enter the industry. Fourth, a model program creates efficiency through lowered costs of training through uniformity because it eliminates the multiple nuanced carrier-specific training programs that each railroad (allegedly) carries out now.

One point that must be emphasized is that the class I freight railroads should not be permitted to truncate any training and certification programs subject to Part 243 to "fix" workforce problems (i.e., expedited training and qualification of new, inexperienced employees to address staffing shortages) because it does not improve industry safety or services. As previously stated, it takes at least three (3) years to complete an apprenticeship training program and nearly five (5) years of on-the-job experience to become an expert at this occupation. Truncating the training to superficially qualify employees does not lend itself to having the most qualified experts in the field. The railroads should be required to follow the model program with heightened standards to avoid future catastrophes and disruptions in service of the kind that we have endured for the last few years now. To this point, there should also be a national database of employees that is jointly maintained by the FRA, the railroads, and the Rail Labor Unions. The database should track, in real time, the number of individuals throughout the industry and what their respective qualifications are. This type of tracking will help forecast workforce needs in real time – not reactively.

Adequacy of Workforce Standard for Class I Freight Railroad Industry

The second action that must be taken is for the FRA to work in conjunction with the Surface Transportation Board (STB) to establish and implement an adequacy of workforce standard that

ensures the class I freight railroads always maintain an appropriate amount of highly skilled, qualified, and certified employees. Afterall, having a model training program with the best standards for an entire industry means absolutely nothing if you do not have an adequate workforce to perform the critical work for which the training is based upon. And there is no question that the class I freight railroads are short-staffed and that it is operating less safely than it did before implementing its cost-cutting business model.

In this regard, we would first invite your attention to the chart below. This chart is based on the FRA's data regarding "Rate of Total Accidents/Incidents per Million Train Miles", "Rate of Employee On Duty per 200,000 Hours" and "Rate of Train Accidents per Million Train Miles".

A simple review of the chart clearly illustrates that safety of the freight railroads has diminished substantially since implementation of its cost-cutting business model.

	2015	2022	DIFFERENCE
Rate of Total Accidents/Incidents per Million Train Miles	9.845	11.765	-19.5%
Rate of Employee On Duty per 200,000 Hours	1.119	1.167	-4.3%
Rate of Train Accidents per Million Train Miles	2.533	3.212	-26.8%

As previously stated, the class I railroads are entirely inadequately staffed. Again, **the railroads slashed 41% of their Shop Craft employees since 2015** and there is no question that the railroads are not functioning as well or as safe as they should be. The class I freight railroads' dysfunction has been on full display for the last several years: between the multiple service suspensions by the railroads, the various public hearings by the STB in 2022 and the STB's explicit orders of freight railroads to provide services to customers. If that was not enough proof, we again invite your attention to the BNSF's January 5, 2023, notice letter regarding their lack of manpower to inspect, service, maintain and repair their locomotive fleets and an alleged need to contract out such work. Moreover, we invite your attention to the FRA's September 8, 2023 letter, that documented UP's federal defect rate of 19.93% for UP's freight cars and 72.69% for their locomotives during an audit.

In further support of our position, we invite your attention to the chart below that has been recreated from reports by the STB's Office of Economics Wage Statistics Reports for Class I

railroads in the U.S. This chart compares STB wage statistic reports for years 2015 and 2022, with respect to Shop Craft Employee Headcounts, total straight time hours paid, and total overtime hours paid.

	Shop Craft Employee Headcounts	ST Hours Paid	OT Hours Paid	OT Hours Worked Annually
2015	**31,052**	**58,459,298**	**4,402,943**	**141.7925737**
2022	**17,438**	**32,508,932**	**3,936,800**	**225.7598348**
Difference #	***-13,614***	***-25,950,366***	***-466,143***	***83.967261***
Difference %	***-44%***	***-44%***	***-11%***	***59%***

What the chart above clearly illustrates is that while the class I freight railroads slashed over 40% of their Shop Craft employees from their workforce from 2015 to 2022, and that straight time hours paid went down proportionately to such massive reduction, the total ***overtime hours paid for Shop Craft employees was only reduced by 11% in total***. In other words, the remaining Shop Craft employees have shouldered more work responsibilities through 59% more additional overtime hours than were previously distributed amongst a much larger workforce. Of course, we would be remiss to point out that while employment levels were slashed and railroad services and safety diminished, the class I freight railroads' profits soared.

These data sources make it clear that the workforce has been decimated and that the railroads are operating less safely, and services are not as satisfactory as they were before implementing their cost-cutting business model. In other words, there has been a "market failure", and when there is a market failure – and industry conduct and performance warrants –the regulating agencies must intervene to restore safety and balance back to the industry, the workforce and thus, the market. Therefore, the FRA and the STB must work together to establish and implement an adequacy of workforce standard for the class I freight railroads. The concept of establishing an adequacy of workforce standard amongst the class I railroads is not entirely new. In fact, it was a subject that was explored by the FRA nearly 25 years ago when there were concerns regarding adequacy of manpower issues for maintaining track conditions within FRA safety standards on CSX its Chesapeake and Ohio Business Unit ("COBU") in Kentucky, Ohio, Virginia, and West Virginia.

In that instance, the FRA, CSX and the Brotherhood of Maintenance of Way Employes ("BMWE") engaged in a "Safety Assurance and Compliance Program" ("SACP"), and the parties were tasked with carrying out a pilot project meant to assess and resolve maintenance of way manpower issues and ensuring the adequacy of CSX's track maintenance program. The parties engaged in various activities and reviewed a variety of information and data with the intention to agree upon and produce "indicators" that reflected conditions across the railroad's system. With respect to information, there was a review of staffing levels, employee training, as well as track maintenance and inspection practices. Additionally, there was numerous data points reviewed, including the total miles of track owned and operated by each respective class I freight railroad, the total of maintenance of way employees responsible for maintaining the railroads' miles of track, the average number of ties per mile, the number of new ties laid, miles of rail maintained and replaced, track miles surfaced, etc. The goal was to establish a formula for establishing manpower needs for that respect carrier. CSX entered a one (1) year SACP Agreement with the FRA that involved hiring and training of employees, and an overall focused goal of improvement of the railroads' working conditions, safety, and operations.

The SACP had many benefits for CSX and the industry, but the problems are that this SACP Agreement was only applicable to CSX, that it was only for a period of one year, and that the FRA never formally established a lasting adequacy of workforce standard. However, it is not difficult to imagine how much better the status of the industry would be right now had there been a full-on regulatory intervention that created a baseline adequacy of workforce. The Shop Crafts submit that it is more than appropriate for the FRA and the STB to work collaboratively to establish an adequacy of workforce standard in light of the class I freight railroads repeated service failures, the massive reductions in headcounts, and the diminished safety record. The Shop Crafts further submit that the FRA and STB establishes the adequacy of workforce headcounts at pre-PSR 2015 headcount levels and at the same proportion of existing crafts' headcounts that were in effect at that time. We believe this to be appropriate for restoring the minimum number of workers with the required skills necessary to resume safe inspection, service, repair and maintenance of the carriers' locomotive fleets and rail cars. We also believe this to be appropriate given there were less formal filings of complaints at the STB at that time, and because safety in the industry was superior to what it is now. Furthermore, numerous Shop Craft Workers have stated that the carriers'

locomotives and rail cars are riddled with defects that are actively being utilized by the railroads, despite being in desperate need of services and repairs. Lastly, we believe this is appropriate because freight activity in the U.S. will increase by 50% by 2050, and much of this freight will ultimately be moved by freight rail.[23] Accordingly, we need a skilled, qualified workforce that that can maintain the railroad equipment necessary to move the increasing freight on our nation's freight rail infrastructure.

Increasing Focus Inspections, Random and Scheduled FRA Audits

The third action that must be taken is for the FRA to conduct more focus inspections, as well as random and scheduled safety audits of the class I railroads' operations. Having safety regulations as well as training and adequacy of workforce standards are meaningless if they are not enforced by the federal agencies that are required to uphold them. While the freight railroads claim to be well-run, law-abiding organizations, and write their history hagiographically, the well-known truth is that the railroads have a long history of not complying with regulations. Again, the numerous STB hearing coupled with BNSF's January 2023 contracting out notice and the FRA's recent findings during focus inspections on UP speak volumes about the status of the industry. The FRA must have more hands-on engagement with the class I freight railroads to get them to abide to the regulations – to do the right thing. The FRA must perform more focus inspections as well as random and scheduled audits to ensure compliance with safety regulations and training requirements.

In this connection, we must emphasize that the purpose of these audits is not to punish the workers, but to ensure compliance by the railroads. The railroads have created a culture of fear,

[23] https://content.govdelivery.com/accounts/USDOT/bulletins/2fd6c0b

uncertainty, and doubt ("FUD") within the workforce. The workers suffer fear of punishment, uncertainty of their livelihood, and doubt that doing the right thing will be recognized and rewarded. It will take a neutral authoritative third party – a champion of change – to create a new culture around safety. It will take an intervention by an authoritative neutral third party to change the culture from fear, uncertainty, and doubt, to create trust and certainty that doing the right thing will always be rewarded, not punished. This cannot be accomplished by outside parties conducting railroad-paid-for superficial choregraphed surveys and safety analysis. This can only be accomplished by having a neutral, third party intervene and facilitate real dialogue, active listening, and following through on actionable suggestions from the key stakeholders that are most impacted by the regulations and who make the railroads operational: the employees.

Disqualifying Management Under 49 CFR Part 209.301

The fourth action that must be taken is for the FRA to use its authority under 49 CFR Part 209.301 to disqualify railroad managers that "…direct the commission of violations of any of the requirements of Parts 213 – 241 of this title, or any requirements of 49 U.S.C CH. 51, or any regulation or order prescribed thereunder." [24] To this point, the FRA should disqualify any manager or agent at BNSF who was involved in reviewing, authorizing, and carrying out the $51,000,000 budget cut plan or any of the related aspects of it, such as the falsification of inspection reports. These same individuals should also be barred from holding a safety sensitive position within the railroad industry. The railroads should be treated no differently than the airline industry, where emergency suspensions and revocations of certificates are issued for committing

[24] https://www.ecfr.gov/current/title-49/subtitle-B/chapter-II/part-209/subpart-D/section-209.303

regulatory violations, which includes the falsification of documents or reports. The fines that the railroads face for their regulatory violations are insignificant and subject to settlement. Disqualification of managers would be more impactful because it would counterbalance the pressure for production with pressure to comply with regulations. It would set a clear example for all managers that safety, through regulatory compliance, is the main priority.

Closing Loopholes Under Existing Regulations

There are numerous loopholes in existing regulations that the railroads exploit under their cost-cutting business model. These loopholes ultimately permit the railroads to diminish safety and the reliability of their services. For example, since implementing their cost-cutting business model, the railroads have virtually eliminated comprehensive inspections of rail cars in train consists and instead utilize inspections under 49 CFR Appendix D to Part 215.13.[25] Inspections under Appendix D are performed by employees that are not trained and qualified to inspect and repair rail cars. Rather, these types of inspections are meant to only identify the most obvious of defects, or "*the imminently hazardous conditions…that are likely to cause an accident or casualty before the train arrives at its destination*". There are multiple defects that can are undetected by the untrained individual during an Appendix D inspection and result in catastrophe, such as the overheated wheel bearing that caused the East Palestine Derailment. These loopholes need to be closed to ensure that the highest qualified employees are performing thorough, comprehensive inspections of the railroads' equipment across the railroads' systems. Have the highest-qualified and most thorough inspections lends itself to the safest and most reliable operations possible.

[25] https://www.law.cornell.edu/cfr/text/49/appendix-D_to_part_215

We would be remiss if we did not again note that there are also numerous defects that are detected and reported by qualified employees but that are nevertheless ignored by railroad managers. As previously noted, since the adoption of the cost-cutting business model, the railroads pressure workers to ignore defects and defer necessary inspections, services, maintenance, and repairs required under the regulations and which are critical for the safe operation of trains across the Class I's rail infrastructure network. Failing to comply with this edict almost surely results in retaliation in this industry, which can come in a variety of forms including being passed over for overtime, job abolishment, or even termination for unrelated reasons. This has been featured in numerous articles in the Guardian as well as on John Oliver's *Last Week Tonight* show on HBO.[26] Aside, the Rail Labor Unions have examples of FRA defect conditions that were reported to railroad management and that were nevertheless signed off on by management as conditions that were safe enough to permit the equipment to operate across the railroads' systems. This is dangerous and unacceptable.

As previously noted, the Rail Labor Unions believe that the only way this type of conduct can be stopped is through a culture change, which will require intervention through an authoritative third-party. Again, the FRA should disqualify all managers that have falsified any reports and further barred from holding a safety sensitive position within the railroad industry. Furthermore, the FRA should provisionally disqualify all managers that have not successfully completed an apprenticeship training program, just like other QMI employees have done, so that they are not permitted to authorize inspection reports until such managers complete an apprenticeship training program. Inspections and the related authorization of inspection, service, maintenance, and repair

[26] https://www.theguardian.com/tv-and-radio/2023/dec/11/john-oliver-freight-train-recap

reports should only be completed by trained and highly qualified individuals, and railroad management should not be permitted to be in a position that diminishes industry safety and service reliability as they have.

CONCLUSION

The class I freight railroad industry is on the precipice of a self-made disaster. There are numerous existing and anticipated locomotive and equipment failures because of the freight railroads' cost-cutting business model. The freight railroads have demonstrated that they will not end this business model, and that they will continue to disregard their obligations to inspect, maintain, service and repair their owned and leased locomotives and rail cars. Again, UP just doubled down on PSR through eliminating an existing CEO and replacing him with a more fervent disciple of PSR, and one of the new CEO's first orders of business was to eliminate an additional 94 Shop Craft employee positions when the railroad already had a much-neglected locomotive fleet that requires immediate attention. The railroads will not do the right thing. The FRA, and the STB, has the authority and the ability to bring about meaningful improvements to the industry that are critical for restoring safety and services to the class I freight railroads. We respectfully urge: the FRA to establish and implement a uniform model training, qualifications, and certification program under 49 CFR Part 243; the FRA to work in conjunction with the STB to establish an adequacy of workforce standard; the FRA increase its focus inspections as well as random and scheduled audits of the class I freight railroads; disqualify certain railroad managers under 49 CFR Part 209.301; and eliminate loopholes under existing federal regulations that the railroads exploit to maximize profits rather than ensure safety and reliable services. These actions are necessary to ensure that the freight railroads are adequately staffed, that the railroads operate more safely, and that the railroads can always fulfill the demands of our nation's infrastructure and economy without disruptions and in real time.

FRQ + 095u opportunities inbound

[redacted]

Brackett, James S
Thu 9/2/2021 3:05 PM

To:

- **MECH DL General Foreman;**
- **MECH DL Shop Superintendents;**
- **MECH DL Field Superintendents**

Cc:

- Rodriguez, Edmundo;
- Soto, Bruno;
- Grubbs, Mark L;
- Raza, Abid;
- Smith, Jeremy E;
- Lager, Eric;
- Morgan, Jonathan D;
- Murray, Robert A;
- Brackett, James S

Field leaders,

To assist in reducing a bubble of FIO units coming due maintenance we will be sharing a list of units each day that can have FIO only and 095u completed at one shopping event. These units will have the FRQ items completed, the fuel and oil filters changed and we will run the unit to the next maintenance.

To complete the process and not have an FIO defect applied follow the process below.

- ***Complete the FRQ items in MAM (blue card only items, same as FIO)***
- ***Complete Project 095U – fuel and oil filters change***
- ***Sign off the general maintenance items; they do not need to be performed. This is to prevent an FIO defect from being auto-generated.***
    - Due to the current structure of MAM, sign off of the general maintenance scope is the only way to prevent a FIO defect from automatically being added and potentially escalating to a level 7 defect or driving another shopping event for maintenance.
    - If we fail to sign off the general maintenance items and release the unit resulting in an FIO defect being auto-generated you may email MAMMECHHelp <MAMMECHHelp@bnsf.com> and request the FIO defect to be completed. Please communicate the 095u was complete and the unit was released without signing off the general maintenance items in error.

Thank you to the MAM help desk for assisting with this process.
The units shown below are inbound to shop and past due or due maintenance in the next 5 days. These will show due FRA, will not have an active FIO defect and have project 095u active at time of arrival.

FRQ/FIO Sign off items



PTC Function Test are never completed and Brakes FRA item 1 is signed off by Machinist

WRK_RPT_DESC	FRA Code
FRQ Items	
Hand Brake - Inspect/Test/Clean	232.105c
Event Recorder - Inspect/Test/Download	229.135
Annual Test - Electrical Load Meter / Air Brake Gauges- Checked/Calibrated	229.27, 229.27
AFM Calibration	229.29(b), 232.205
Change Filters on Pre-Coalescers & Dirt Collectors in MR Lines to Brake Equipment, AUX Devices, & Pre-Coalescers on Air Dryer	229.29c(1)
Completed Level Two Airbrake Test (2AI, 3AI, 4AI, 5AI, 7AI, or 8AI).	229.29
RCL Function Test	229.25
PTC Function Test	

Brake System	
Mechanical Blue Card Item 1 Completed Per FRQ Blue Card Requirements.	
Perform Periodic Air Brake Test. (Self-Test)	229.29(a)
Test Air Gauges (plus or minus 2 psi).	229.59
MR Leakage Test - Check Valve	229.59(a)
Brake Pipe Leakage Test	229.59(b)
Brake Cylinder Leakage Test	229.59(c)
Document Control Air Setting (If Equipped) (Should be 80psi).	229.59(d)
Check for correct air pressure settings. >Main Res Compessor (130-140psi), >Brake pipe(90psi), >Equalizing Res(90psi)	229.49(b)
Drain main reservoirs and verify blowdowns are functioning properly - In the auto posistion - Venting	229.46(2)
Check Auxiliary Emergency Brake Valve. (Fireman's valve) for Proper Operation & Identification.	229.47(a)
Test Main Reservoir Safety Valve. (145-155 PSI)	229.49(a)(1)
Inspect Brake Rigging	229.57
Verify Piston Travel	229.55(a)
Check MU Air Lines, Valves & Clamps. Replace Any Valves with Defective Locks.	229.45

Mechanical Blue Card Items 2, 3, 4, & 6 Completed Per FRQ Blue Card Requirements.

Item 2 Running Gear

Inspect Draft Gear Pin / Inspect Pins & Bushing / Inspect Coupler for Defects & Height	229.61
Record Wheel Measurements. Also inspect Wheels for Defects such as: Cracks, Flat & Shell Spots.	229.75, 229.73
Verify Side Bearing Clearance	229.69
Verify Clearance above top of rail	229.71
Verify Snow Plow/Pilot Clearance	229.123
Inspect Trucks - Springs - Tie Bars - Pedestal Liners - Securement	229.65, 229.63, 229.67
Inspect Dampener for oil droplets	

Item 3 Cab Mech

Inspect Toilet Operation / Clean, Charge, and Drain as Necessary	229.137
Inspect Operation of Toilet Room Door Modesty Lock	229.137
Inspect fire extinguisher date and inspect brackets.	229.45
Inspect all Windows for defects & Proper FRA Glazing Identification	223.11, 229.119(b)
Inspect Heater/Ventalation	229.119(d)
Inspect AC/Ventalation	229.119(h)
Inspect Seat for proper operation and securement	229.119(a)
Inspect Cab Locks functional - Interior and Exterior	229.119(i)
Test Bell for proper operation Lubricate as needed	229.129
Test Sanders for proper operation	229.131
Inspect condition of blue card and air slip holder	229.23

Under Item 4 Mechanical (PTC is never tested and verified) Under Item 3 & 5 the PTC alerter is not tested, Units are not taken to a pit to verify motors

Inspect and clean Reflectorization	224.101
Clean Cab/Passageways/Air Compressor,Engine,Electrical Compartments	229.119c

Item 4 Mechanical

Check Operation of Engine Protective Devices: (Self-Test)	229.101
Check Exhaust System for Leaks or Cracks	229.43

Electrical Blue Card Items 3 & 5 Completed per FRQ Blue Card Requirements.

Item 3 Cab Elec

Check Operation of All Emergency Fuel Shut Off Devices from All Locations	229.93
Check all Electrical Lamps, Replace as Required.	229.127, 229.125
Perform Operational Wheel Slip Test.	229.115, 229.101
Test and Inspect Speed Indicators	229.117
Inspect Head of Train Device (HED)	232.409
Test Alerter Function	229.14

Item 5 Electrical

Inspect Jumper Cables and MU Receptacles.	229.89
Inspect Unit for Proper Decals-Replace any Missing or Faded.	229.85
Inspection traction motor covers	229.41
Make Visual Inspection of Electrical Switch Gear, Inspect Rotating Electrical Equip & Contactors, Relays, etc / Verify Insulation and Covers are in place	229.91, 229.83,
Inspect all Traction Motors >Inspect leads,boots,hose clamps,carbody leads	229.91
Check Operation of Ground Relay / Inspect or Replace Cutout Switch Seal.	229.91, 229.83,

Item 7 Saftey Appliance

Inspect Uncoupling Lever/Anti Creep Clearance	231.29, 229.61(a)(3)
Inspect Step Condition	231.30
Verify Step Lighting or Outer edge must be painted a contrasting color	231.30
Vertical Hand Holds - 2.5" Clearance - Painted Contrasting Color	231.30
Inspect Continuous Barrier	229.119e

BNSF 6549

FRA Due

All Work | My Work | Turnover Comment

Grouped WO

SFS	523-3,BNSF 4665,BNSF 8391,BNSF 6549,BNSF 1025 REG 4	05:05	Complete	108(8) 116	

Inspections

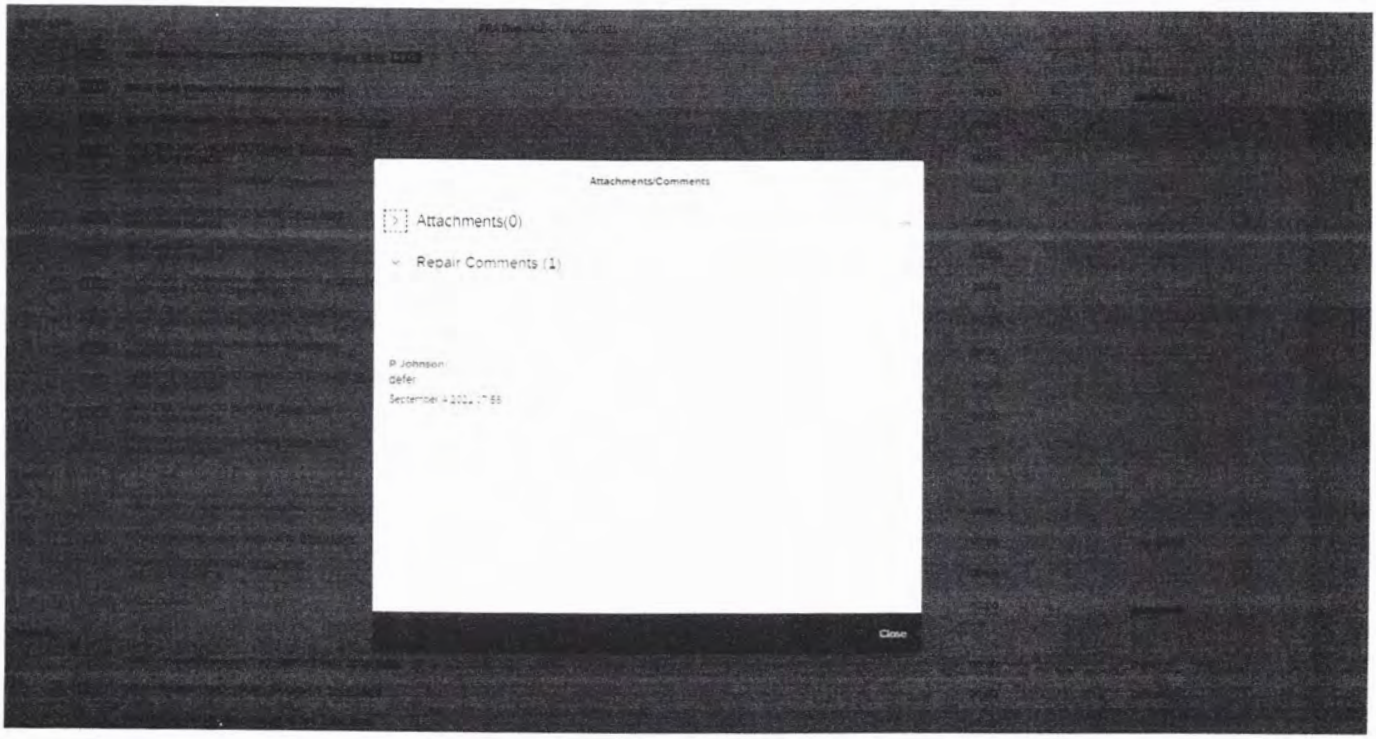
LOOS	BNSF 6549 Locomotive Outshop- Supervisor Show More	00:00		0/70	
M184	184 Days Running Maintenance-BNSF 6549 G Show More BNSF 6549 E544C4	00:00		0/0	
FRQ	BNSF 6549 FRQ Inspection FRQ with ERI Show More REG	00:00		0/8	
WSH	BNSF 6549 Wheel Sheet Maintenance Wheel	00:00		1/2	
TMLT	BNSF 6549 Traction Motor Lube Top Off F Show More	00:00		0/6	

Defects

After the FIO (Federal Items Only) is completed, a 095U is applied on various units. Then the unit returns to get a Fuel and Oil Filter change, and that will get Deferred also by front line supervisors and AGF's

Projects

MOD	069S - Heated Blowdown EVO- 069S - Heate Show More	00:00	Deferred	0/1
MOD	090M - Kickstart EVO- 090M - Kickstart E Show More	00:00	Deferred	0/1
MOD	095U - Fuel and Oil Filter change at Ser Show More	00:00	Deferred	0/1



Full 184 inspection
Component:OTHER
Symptom:OTHER - TEXT REQUIRED

P Johnson
FIO UNIT
Component:OTHER
Repair Action:OTHER - TEXT REQ

Add Comments

Patrick Johnson

They will also Defer the download approval from Wabtec. So basically it looks like they inspected and released the unit, but in reality they just defer it and it will not even get the basic filter maintenance.

Prior to release, after completing the notch 8 Outbound Load take a fresh download. Once the download is synced ask for a recommended release review with GPOC AT (888) 432-0209 Please complete this step with time to address any findings prior to release. Close this defect with the name of the GPOC representative you spoke with

P Johnson
FIO UNIT
Component:OTHER
Repair Action:OTHER - TEXT REQ

Patrick Johnson

Long Text

09/02/2021 19:00:20 CST Interface ID From GE to XI (X_XI_GEHTTP1095U - Fuel and Oil Filter change at Ser---GE Last update By

Close

FW: FRQ + 095u opportunities inbound

McLeod, Paul S <Paul.McLeod@bnsf.com>
Tue 9/21/2021 7:17 AM
To: MECH DL Alliance General Foreman <MECHDLAllianceGeneralForeman@BNSF.com>; MECH DL Alliance NE Locomotive Facility <MECHDLAllianceNELocomotiveFacility@BNSF.com>

Hello,

Ensure we are following the process when completing the 095U. We must drop the General Maintenance bucket and " ***Sign off the general maintenance items; they do not need to be performed"*** This prevent us from having to double work and the system from dropping the FIO defect.

Guidelines used to determine eligibility for this process

- Only AC units (DC units need brushes)
- M184 maintenance due (M368 have mandatory EPA/TBM'FMIs)
- No 1-7 or level D defect
- Good oil TBN
- No red RXs applied

To complete the process and not have an FIO defect applied follow the process below.

- ***Complete the FRQ items in MAM (blue card only items, same as FIO)***
- ***Complete Project 095U – fuel and oil filters change***
- ***Sign off the general maintenance items; they do not need to be performed. This is to prevent an FIO defect from being auto-generated.***
  - Due to the current structure of MAM, sign off of the general maintenance scope is the only way to prevent a FIO defect from automatically being added and potentially escalating to a level 7 defect or driving another shopping event for maintenance.
  - If we fail to sign off the general maintenance items and release the unit resulting in an FIO defect being auto-generated you may email MAMMECHHelp <MAMMECHHelp@bnsf.com> and request the FIO defect to be completed. Please communicate the 095u was complete and the unit was released without signing off the general maintenance items in error.

Thank you to the MAM help desk for assisting with this process.

Paul S. McLeod | BNSF Railway | General Foreman III | 500 West Kansas, Alliance, NE, 69301 | Paul.McLeod@BNSF.com | (308)763-2895 | CELL 406-399-1829)

Information contained in this email is considered to be highly confidential and may not be shared with any party other than the intended recipient without the express written approval of Paul McLeod.

From: Brackett, James S <James.Brackett@bnsf.com>
Sent: Tuesday, September 21, 2021 6:37 AM
To: MECH DL General Foreman <MECHDLGeneralForeman@BNSF.com>; MECH DL Shop Superintendents <MECHDLShopSuperintendents@BNSF.com>; MECH DL Field Superintendents <MECHDLFieldSuperintendents@BNSF.com>
Cc: Rodriguez, Edmundo <Edmundo.Rodriguez@BNSF.com>; Soto, Bruno <Bruno.Soto@BNSF.com>; Grubbs, Ma <Mark.Grubbs@BNSF.com>; Raza, Abid <Abid.Raza@BNSF.com>; Smith, Jeremy E <Jeremy.Smith7@BNSF.com> Lager, Eric <Eric.Lager@BNSF.com>; Morgan, Jonathan D <Jonathan.Morgan@BNSF.com>; Murray, Robert A <Robert.Murray@BNSF.com>; Parker, Gregory <gregory.parker@Wabtec.com>; Allfree, Adam <Adam.Allfree@wabtec.com>; mindy.dejarnett@wabtec.com; justin.peters@wabtec.com; collin.jackson@wabtec.com; Anderson, Ryan <ryan.anderson@Wabtec.com>; Brackett, James S <James.Brackett@bnsf.com>
Subject: FRQ + 095u opportunities inbound

Guidelines used to determine eligibility for this process

- Only AC units (DC units need brushes)

miketschacher@outlook.com

From: Darrell Patterson IBEW <dpattersonsc16@outlook.com>
Sent: Friday, January 13, 2023 10:27 AM
To: ibewsc16@outlook.com; 'Jeff Burk'; 'Brad Carothers'; Mike Tschacher; Darrell Patterson IBEW
Subject: FW: Overtime Goal = 0% in 2023 (Locomotive Side)

Sent: Tuesday, January 3, 2023 3:11 PM
To: MECH DL TSSUPERS <MECHDLTSSUPERS@BNSF.com
Subject: RE: Overtime Goal = 0% in 2023 (Locomotive Side)

Just FYI, due to winter weather impacts up North, we have been asked to start calling OT on the weekends to help push the UNSC units that have been sent to us, along with others.

Here we go, we can do this, done it before several times.

Henry

From: Schafer, Henry R <Henry.Schafer@BNSF.com>
Sent: Thursday, December 29, 2022 3:01 PM
To: MECH DL TSSUPERS <MECHDLTSSUPERS@BNSF.com>; MECH DL TSMT Local Chairs <MECHDLTSMTLocalChairs@BNSF.com>
Subject: Overtime Goal = 0% in 2023 (Locomotive Side)
Importance: High

All,

Some of you may have heard that we are moving to a 0% overtime initiative in 2023 and we wanted to help explain the reasoning behind this. As a whole, the mechanical department has a cost savings initiative to reduce the mechanical budget by $51 million across the system. In an effort to help reduce those dollars we will try to avoid calling Overtime next year as much as possible as those dollars play a large role in that spending. We will continually monitor our progress through all areas of the shop and work to help with manpower issues, work strains, and material availability to help us achieve our 2023 TSMT goals and do our part in helping to reduce the 2023 mechanical budget. Please let us know if you have any questions, and thank you for all that you do.

Once we go through the first quarter, we will readjust as necessary. I will be covering this through a town hall later next week once I set the date

NOTE: Business Car trips cannot be avoided, so understand we will still have riders.

Henry Schafer| BNSF Railway | Topeka SMT| Henry.Schafer@bnsf.com | Office# 785-435-5600 | CELL 308-760-0558

Derek Cargill
General Director
Labor Relations

BNSF Railway Company
P.O. Box 961030
Fort Worth, TX 76161-0030
2600 Lou Menk Drive
Fort Worth, TX 76131-2830
Phone: (817) 352-1046

January 5, 2023

File No. 184-09-1417

Mr. Jeff Allred, General Chairman IBEW — ibewsc16@outlook.com
Mr. John McCloskey, General Chairman SMART — jmccloskey@smart-gc2.org
Mr. Joe Fraley, International Representative SMART — jfraley@smart-union.org
Mr. Kenny Krause, General Chairman IAM — kkrause@districtlodge19.com

Re: Bad Order Maintenance/Repair Outsource

All:

As information, BNSF intends to contract out for work needed to reduce the number of out of service locomotives in the system. The current out of service count is currently at 550, which is the highest mark we've seen in the last 5-7 years. This is driven by locomotive demand being beyond plan for over 12 months and early winter weather, resulting in a higher than normal number of bad order locomotives on the road and in the shop. Although we have taken steps to manage this bubble of work, including leveraging all shop capacities we have throughout the network, it is critical that we get the out of service count back to a healthy level (around 400-420) as quickly as we can. In order accomplish that, it is necessary and essential to outsource up to 30 locomotives per week to third party vendors for the next 3-6 months. The primary focus will be on our maintenance and FIO backlog.

There are currently approximately 1,000 units currently FIO'd which need their full maintenance completed, and we have depleted our ready fleet to the point that our recovery capability is severely limited. In addition, we expect to face continued significant weather events in the upcoming months.

BNSF currently does not have the necessary manpower and shop capacity available on the property to perform this work within the necessary time frame, as there is an immediate need to address the high number of bad order locomotives on the road and in the shop. In 2022, we hired 474 Mechanical employees, with a hiring plan of 569. That delta of 95 was rolled over to the 2023 hiring plan. For 2023, we have a hiring plan of 711, and while we continue to press forward with this robust hiring plan, it will take time to get these additional employees hired and on the property.

As of December, year to date overtime was 12.07% with as much as ~23.0% on weekends for the month of December. At the same time, our locomotive availability has not been able to keep pace with our velocity demands. Accordingly, in order to have a reliable fleet to meet our customers' needs, we must temporarily supplement our forces by outsourcing a limited number of locomotives to outside vendors.

The initial batch of locomotives, currently due FIO maintenance, are provided as an attachment to this notice. **As always, we will continue to monitor shop capacity and work as many of these units on property as possible.** This notice will be supplemented as additional units are sent to a third-party vendor pursuant to this notice. We anticipate starting as soon as advance notice requirements are complete, barring unexpected circumstances. Please reference file number 184-09-1417 on any future correspondence regarding this matter.

The units outsourced under this notice will go to various shops for repairs, including the following:

1. QRS, Madison, IL – output of 10/wk
2. MEI East St Louis – output of 10/wk
3. Mid America Car – output of 3/wk
4. Wabtec PTRA, San Angelo, AMP – Backup locations
5. MEI Burlington IA – Backup location
6. Progress Rail – Northport, Mayfield – Backup location
7. NRE – Mt Vernon, Paducah – Backup location

Sincerely,

Derek Cargill

Derek Cargill

Attachment: Initial List of Locomotives

cc: K. Solomons
E. Rodriguez
B. Soto
D. Dortch
A. Raza
J. Smith

Initial List of Locomotives

979	BNSF	3940	ET44C4	M368	Winter Waiver
980	BNSF	4007	C44-9W	M184	Winter Waiver
981	BNSF	4040	C44-9W	M184	Winter Waiver
982	BNSF	4089	C44-9W	M368	Winter Waiver
983	BNSF	4100	C44-9W	M368	Winter Waiver
984	BNSF	4170	C44-9W	M368	Winter Waiver
985	BNSF	4744	C44-9W	M368	Winter Waiver
986	BNSF	5118	C44-9W	M184	Winter Waiver
987	BNSF	5131	C44-9W	M184	Winter Waiver
988	BNSF	5471	C44-9W	13CP	Winter Waiver
989	BNSF	5492	C44-9W	M184	Winter Waiver
990	BNSF	5682	AC4400CW	M368	Winter Waiver
991	BNSF	5685	AC4400CW	M184	Winter Waiver
992	BNSF	5804	ES44AC	M368	Winter Waiver
993	BNSF	5856	ES44AC	M368	Winter Waiver
994	BNSF	5971	ES44AC	M184	Winter Waiver
995	BNSF	6065	ES44AC	13CP	Winter Waiver
996	BNSF	6260	ES44AC	M368	Winter Waiver
997	BNSF	6275	ES44AC	M368	Winter Waiver
998	BNSF	6291	ES44AC	M368	Winter Waiver
999	BNSF	6323	ES44AC	M368	Winter Waiver
1000	BNSF	6333	ES44AC	M184	Winter Waiver
1001	BNSF	6384	ES44AC	M368	Winter Waiver
1002	BNSF	6637	ES44C4	M368	Winter Waiver
1003	BNSF	6639	ES44C4	M368	Winter Waiver
1004	BNSF	6653	ES44C4	M184	Winter Waiver
1005	BNSF	6706	ES44C4	M184	Winter Waiver
1006	BNSF	7132	ES44C4	M184	Winter Waiver
1007	BNSF	7135	ES44C4	M368	Winter Waiver
1008	BNSF	7374	ES44DC	M368	Winter Waiver
1009	BNSF	7399	ES44DC	M184	Winter Waiver
1010	BNSF	7430	ES44DC	M368	Winter Waiver
1011	BNSF	7474	ES44DC	M184	Winter Waiver
1012	BNSF	7499	ES44DC	M368	Winter Waiver
1013	BNSF	7655	ES44DC	M368	Winter Waiver
1014	BNSF	7682	ES44DC	M184	Winter Waiver
1015	BNSF	7860	ES44DC	M184	Winter Waiver
1016	BNSF	7868	ES44DC	M184	Winter Waiver
1017	BNSF	8005	ES44C4	M368	Winter Waiver

1018	BNSF	8024	ES44C4	M368	Winter Waiver
1019	BNSF	8051	ES44C4	M184	Winter Waiver
1020	BNSF	8057	ES44C4	16CP	Winter Waiver
1021	BNSF	8248	ES44C4	M184	Winter Waiver
1022	BNSF	8379	E4C4C	M184	Winter Waiver
1023	BNSF	9139	SD70ACE	M368	Winter Waiver
1024	BNSF	9382	SD70ACE	M368	Winter Waiver
1025	BNSF	9746	SD70MACE	M184	Winter Waiver

Rick - 7/26/04
There is
CSX info
in here also

FRA SACP
CSX

U.S. Department
of Transportation

**Federal Railroad
Administration**

C&O MAINTENANCE OF WAY MANPOWER PILOT

A SAFETY ASSURANCE AND COMPLIANCE PROGRAM REPORT

Office of Safety
1999

July

RECEIVED

NOV - 8 1999

BMWE WASH OFFICE

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C&O MAINTENANCE OF WAY MANPOWER PILOT

INTRODUCTION

During 1999, Federal Railroad Administration (FRA) and State Track Inspectors have been engaged in FRA's first initiative to address Maintenance of Way (MOW) manpower issues. The pilot initiative has been conducted on CSX Transportation Company's (CSXT) Chesapeake and Ohio (C&O) Business Unit (COBU) in the States of Kentucky, Ohio, Virginia, and West Virginia.

In addition, one-on-one interviews with Brotherhood of Maintenance of Way Employes (BMWE) members and CSXT Roadmasters were conducted during FRA field inspections on the Cumberland Coal Business Unit's Ohio River Subdivision in West Virginia, after two reported track-caused derailments.

Following a hi-rail inspection with United States Congressman Bob Wise in West Virginia in the fall of 1998, FRA scheduled and facilitated a Track Safety Assurance and Compliance Program (SACP) meeting with CSXT in Huntington, West Virginia. During the meeting, the feasibility of conducting a pilot project to assess and resolve manpower issues affecting MOW employees on the COBU was discussed.

It was decided that a partnership of representatives from CSXT, BMWE, and FRA would begin a pilot project. The goal of the pilot project is to create a formula to establish manpower needs on particular track segments. The formula will include variables such as, but not limited to, tonnage, miles of track, mechanized gang cycles, and equipment availability. Both CSXT and FRA agreed to utilize rail economists during the pilot.

A "strawman" tally of data requirements was developed to ensure that sufficient detailed information was captured concerning track conditions and maintenance capabilities. The captured information included staffing, equipment availability, system production track gang maintenance cycles, and track material availability. This enabled the team to draw conclusions about the current state of track safety and to examine the adequacy of the track maintenance program.

Prior to their inspections, FRA inspectors conducted "field" listening sessions with over 330 BMWE members. Also included in the listening sessions were CSXT's first line supervisors (i.e., Roadmasters, Assistant Roadmasters, and Bridge Supervisors), who are responsible for maintaining the track structures and bridges at 16 different locations across the business unit in the four-state geographic area.

FRA and State track inspectors conducted comprehensive records and field inspections on the COBU. This review encompassed 1,755 miles of main track, 225 miles of sidings and 173 miles of yard track. In addition, track inspectors executed walking inspections of 1,122 main line turnouts and 533 yard turnouts. A total of 13,594 records were reviewed, which included detailed inspections of CSXT's COBU's FRA Track Inspection Records (FY 98), Derailment Records, Internal Rail Flaw Detection Records and Rail Service Failures (1996-1999). Subsequent to the pilot initiative, two FRA Track Inspectors also conducted walking and hi-rail inspections of

approximately 234 miles of main line track, 93 main line turnouts, 3 miles of yard trackage, and 8 yard turnouts on the Cumberland Coal Business Unit, Ohio River Subdivision.

For the pilot initiative, FRA attempted to assign track inspectors with no prior association of inspections of CSXT's COBU. This was an effort to preclude any personal biases from influencing the inspection results. In addition, FRA inspectors were accompanied by CSXT track inspectors rather than CSXT Roadmasters. No advance notice of the exact time of the inspections was provided to CSXT management. Violations resulting from the Pilot Initiative are being held in abeyance until the conclusion of the SACP track safety audit. A total of seven violations have been filed on non-complying conditions cited during the field inspections.

During their investigations in the field and from information compiled during listening sessions, the FRA/State SACP team identified Manpower, Track Structure, Roadway Worker Protection, System Support for Local Forces, and Procedure Manual and Practices as the five principal safety issues. Three of these safety issues were noted and discussed as systemic in nature in FRA's original 1997 CSXT\SACP report.

CSXT management has already begun to respond to FRA's concerns in the following manner:

- CSXT management has added one, 12-man track gang, to both the COBU and the Cumberland Coal Business Unit to address fatigued rail conditions.

- CSXT management is considering changes in its programed maintenance track gang philosophy, i.e., returning to a divisional track gang, in addition to the system track gang concept.

- In addition to the rail already in place to be installed on the business units as programed maintenance, both gangs will be furnished additional rail to install throughout the production season.

- Since November 1998, CSXT track gangs have installed 63,700 feet of curve patch rail on the Ohio River Subdivision. Another 40,000 feet are scheduled for installation during the remainder of this year.

- CSXT is scheduled to install 22,000 ties on the Ohio River Subdivision this year.

- CSXT has assigned a tamper exclusively to the Ohio River Subdivision.

MANPOWER

Concern: Manpower

FRA is concerned about the ability of CSXT's local MOW forces to maintain track within the limits of its Federal Track Safety Standards' (FTSS) operating class. Marginal tie conditions, worn out rail, moisture-saturated subgrade roadbed, and a lack of equipment, compounded by over-extended mechanized gang cycles, have taxed CSXT's limited workforce's ability to correct and maintain trackage to its intended class.

Discussion:

Realizing both railroad management's and labor leaders' sensitivity to current CSXT manpower levels, FRA performed an analytical comparison of data, which is submitted by the Nation's Class I railroads to the Surface Transportation Board (STB). Using the Annual Form R-1 Report, Statement M-350 Mid-Month Employee Counts, and Annual Wage Form A&B Statements, and the Association of American Railroads (AAR) "Green Book," an annual compilation of data based on the STB Form R-1 Annual Reports, CSXT track maintenance efforts were examined in three areas: (1) the number of MOW employees available to perform work; (2) the number of crossties, miles of rail, cubic yards of ballast, and miles of track replaced/placed/resurfaced each year; and (3) the annual inflation-adjusted expenditures on Way and Structures Railway Operating Expenses. Data and analysis from the first two areas are included in this report.

An analysis of each area has produced a series of "indicators." The indicators by themselves do not show that a railroad has inadequate staffing levels, or that track maintenance is being deferred, or that there are unsafe track conditions. In addition, these are system-wide indicators. The indicators cannot identify MOW problems which may exist along a particular track segment or track division.

FRA Track Inspectors used these indicators coupled, with site-specific track inspections, results from inspections performed by FRA's track geometry car, and Safety Assurance and Compliance Program (SACP) listening sessions, to determine if there are systemic or localized safety problems that need correction.

For the purposes of examining MOW employee staffing levels, CSXT is compared to the only other Class I railroad of comparable size, Norfolk Southern (NS), and to the employee levels of the Class I railroad industry for the years 1995-1998. Not only is NS a competitor of comparable size, but the carrier is also located in the Eastern United States, the same operating region as CSXT.

Table 1 (See Attachment) shows the percentage of "Miles of Track Operated (including trackage rights)" by CSXT, NS, and the Class I railroad industry. Also shown is the number of MOW employees and the number of total employees.

Full year data for FY 1998 was not available. Looking at 1997, the last year for which data is complete, CSXT operates 15.52 percent of the Class I railroad industry's total miles of track (including trackage rights track). All other things being equal, an analyst would expect that

CSXT's MOW employees should equal 15.52 percent of the Class I industry's total MOW employees. However, CSXT's MOW employees are only 14.25 percent of the Class I industry's total MOW employees. Keeping all other categories of CSXT's work force constant, MOW employees would need to increase by 594 in 1997 for its percentage of MOW employees to increase from 14.25 percent to 15.52 percent, representing CSXT's percentage of total miles of track (including trackage rights track) operated within the Class I railroad industry.

Also for 1997, CSXT's MOW employees represented 20.24 percent of its total employees. In contrast, total MOW employees for the Class I railroad industry represented 22.24 percent of total Class I railroad employees. Keeping all other categories of CSXT's work force constant, CSXT would need to increase its MOW work force by 718 employees in 1997 to raise its percentage of MOW employees from 20.24 percent of total employees to the Class I railroads average of 22.24 percent.

FRA's field inspection verified that this comparative analysis of publicly-released data is representative of FRA's observations. Listening session feedback and field observations indicate that numerous vacancies have existed on the COBU, which have remained unfilled for an extended period of time. Sub-optimal MOW staffing levels and a shortage of mechanized MOW equipment, has diminished CSXT's ability to maintain track to its intended FTSS class. Some examples of labor shortages found during field inspection included:

- BMWE labor leaders reported that CSXT is paying wage guarantees to several furloughed MOW employees. BMWE believes that CSXT management should utilize the furloughed employees to augment the MOW workforce.

- BMWE labor leaders and employees believe that some manpower shortages are caused by a requirement for BMWE employees to provide roadway worker "flag protection" for outside contractors installing fiber optics, performing drainage work, vegetation control and welding along railroad right-of-way.

- Roadmasters stated they don't have authority to fill vacancies created by vacations, extended sick leave, and retirements, which prevent them from maintaining adequate manpower levels.

- Concerns were presented about the aging of the general work force. When questioned during listening sessions, MOW employees responded that their ages are between 45 to 55 years of age with 20 to 25 years of service. This equates to a large group of individuals retiring within approximately 10 years of each other. CSXT is not recruiting and training young MOW workforce replacements for the senior employees. Employees complain that workload is too great.

- Concerns were voiced over the lack of track surfacing equipment. Also, there are not enough people assigned to gangs to retrieve ties, which fall during surfacing operations. Currently surfacing equipment is shared among four to six Roadmasters.

- The COBU's B&B Department has 62 employees to maintain 1,100 bridges within 1,168 miles of track.

- There were numerous "quality of life issues." Some deal with track gangs being dovetailed to cover weekend activity required by weather conditions and to inspect track when necessary. Two separate track gangs reported working with only a few "days off" during the period from Thanksgiving through April.

- System track gang maintenance schedules are not flexible and do not allow for unexpected delays. Track gangs routinely leave much needed new rail and ties on the ground and leave programed maintenance areas with the work incomplete. Local maintenance forces are further expected to maintain the track structure to meet FTSS until the gang returns. In some cases this could be more than two years.

- FRA listening sessions found that in some cases CSXT maintenance forces were not centrally located within their territory. Some employees felt they experienced an inordinate amount of travel time to reach work sites.

Recommendations:

FRA believes that CSXT's basic track forces are struggling to maintain the track structure to comply with the minimum requirements of the FTSS. CSXT should establish and plan routine maintenance cycles for track surfacing and renewal of crossties, switch timbers, turnouts, and rail. The program maintenance cycles should be more frequent and schedules should allow for unexpected delays. A policy statement should be issued to insure scheduled program work is completed at each site, before the gang departs for another site.

At a minimum, CSXT's senior management needs to decide what they expect from local basic track forces, including track and bridge and structures. Once this determination is made, CSXT should staff MOW track gangs accordingly and ensure that existing basic MOW positions are maintained at full complement. A resource allocation model should be developed to address CSXT's MOW manpower needs and attrition rates.

When contracts are signed for flagmen by contractors who fully reimburse CSXT, CSXT's Human Resource Department should post job announcements, as expeditiously as possible, to fill vacancies created by the flagging positions.

CSXT management should examine their practices concerning scheduled program work, and determine the cost effectiveness of repeated testing and repair, versus laying new rail, particularly in those areas where large numbers of defective rails are found.

TRACK STRUCTURE

Historically, the railroad industry has been both labor and capital intensive. Unlike other transportation modes, railroads are not only required to maintain equipment needed to transport passengers and freight, but are required to maintain the railroad right-of-way over which the equipment operates—the track, roadbed, and signal components. There is no equivalent industry to which the railroad industry can be compared. The relatively recent advances of continuous welded rail and the use of concrete cross ties hold the promise of requiring less maintenance for railroad way and structures.

FRA knows of no current studies into the life expectancy of individual track components. However, the former Interstate Commerce Commission (ICC) (now Surface Transportation Board) was required to determine the life expectancy of railroad track components such as creosote-treated wooden crossties and rail. "Depreciation rates" for crossties and rail were used for reporting track component expenses under the ICC's Uniform System of Accounts. For "railroad accounting purposes," a creosote-treated wooden crosstie's life expectancy was 40 years and rail life was 60 years. Obviously, weather plays a factor in the life expectancy of wooden crossties—dry conditions favor a normal life expectancy; wet conditions will shorten life expectancy. For rail, gross tonnage, track curvature, and track speed affect rail life. Rail grinding—to smooth surface irregularities from train use—can extend rail life in mainline use. Also, rail life includes years of service in classification yards or rail sidings, following removal and shift from mainline to alternate uses.

All other things being equal, a 40-year life expectancy for creosote-treated wooden crossties requires that 2.5 percent of a railroad's total wooden crossties be replaced annually. Likewise, a 60-year life expectancy for rail requires that 1.67 percent of a railroad's "miles of rail" or "tons of rail" be replaced annually. When these annual replacement rates are not observed, they can serve as "indicators" of decreased railroad maintenance efforts.

To compensate for deteriorating track conditions, railroads can permanently reduce train speed over rail corridors or track segments needing maintenance and continue to operate trains safely. In other cases, track or rail corridors can be put under "slow orders"—train speed is reduced temporarily until required maintenance can be performed. The amount of track under "slow orders," or shifts in the amount of track from higher to lower FRA Track Categories (track categories are based on maximum allowable train speeds) are other "indicators" for FRA inspectors to consider in assessing track conditions.

Other track maintenance is equally important. To prolong the life of crossties and rail, track must be resurfaced periodically and ballast must be restored.

For the purposes of examining Track Component Replacement/Maintenance Levels, CSXT is compared to the only other Class I railroad of comparable size, NS, and to maintenance levels of the Class I railroad industry for the years 1995-1997. NS and CSXT operate in the same geographic region and have similar gross ton-miles of freight per mile of maintained track. Consequently, weather-related and ton-mile-related MOW requirements for NS and CSXT could be expected to be similar.

Full year 1998 data is not yet available. Table 2 shows a Summary of Track Statistics. Table 3 shows a Track Component Replacement Analysis for 1995-1997.

Looking at 1997, the last year for which data is complete, CSXT replaced 2.32 percent of its system-wide crossties and 1.35 percent of its rail-miles of rail. In 1996 and 1995, CSXT's crosstie and rail replacement levels were 2.19 percent and 1.17 percent, and 2.19 percent and 1.21 percent, respectively. To raise crosstie and rail replacement levels to the average depreciation rate levels of 2.5 percent and 1.67 percent, respectively, Table 3 (1997) shows that CSXT needs to install an additional 154,240 crossties and 188 rail-miles of rail in 1997. For 1996, 271,898 crossties and 294 rail-miles of rail are needed. For 1995, 278,633 crossties and 272 rail-miles of rail are needed.

Rail is fabricated in different weights designed to support a specified gross ton level of traffic (weight of lading plus weight of car/locomotive). The type of rail used is expressed in terms of pounds per yard, i.e., 140-pound rail. For 1997, the rail installed on CSXT averaged 125 pounds per yard. Assuming a 60-year rail life, Table 3 (1997) shows that CSXT would need to install an additional 42,297 tons of rail to bring new rail laid in replacement up to the average annual depreciation rate replacement level of 1.67 percent.

In 1997, Class I railroads replaced 1.28 percent of new rail tons laid in replacement. This is short of the 60-year accounting depreciation rate of 1.67 percent. In comparison, CSXT replaced 1.01 percent of new rail tons laid in replacement. For CSXT to equal the Class I railroad average of 1.28 percent of new rail tons laid in replacement, Table 3 (1997) shows that the railroad would need to install an additional 17,326 tons of new rail laid in replacement.

For 1997, CSXT operated 16.54 percent of the Class I railroad industry's total "maintained" miles of track (excluding trackage rights track). All other things being equal, an analyst would expect CSXT to resurface track and add cubic yards of ballast in proportion to its 16.54 percent share of Class I railroad track. Table 3 (1997) shows that CSXT resurfaced 15.78 percent of Class I railroad track and installed 7.98 percent of Class I railroad ballast. To increase these percentages up to CSXT's 16.54 percent share of Class I railroad track, Table 3 (1997) shows that CSXT would need to resurface an additional 310 miles of track and add an additional 1,415,318 cubic yards of ballast.

For years 1995-1997, Table 3 shows that CSXT's Track Component Replacement levels for crossties, new rail laid in replacement, surface renewal, and ballast placement were below Class I railroad averages, and NS averages for all analysis categories in each year except for track resurfacing in 1995. In contrast, NS's Track Component Replacement levels exceeded CSXT's and the Class I railroad industry averages in all categories except new rail laid in replacement.

The Table 3 "negative" values for NS in 1995-1997 indicate that NS's MOW Track Component Replacement levels exceed "average accounting depreciation rate" targets, or Class I railroad averages. For NS averages to equal the "average accounting depreciation rate" targets, or Class I railroad averages, the "negative" values indicate that NS would need to reduce maintenance by the indicated amount.

The Table 3 Track Component Replacement indicators are a tool. The indicators by themselves do not show that a railroad has inadequate staffing levels, or that track maintenance is being deferred, or that there are unsafe track conditions. In addition, these are system-wide indicators–the indicators cannot identify MOW problems which may exist along a particular track segment or track division.

FRA Track Inspectors can use these indicators coupled with their own site-specific track inspections, results from inspections performed by FRA's track geometry car, and Safety Assurance and Compliance Program (SACP) listening sessions to determine if there are systemic or localized safety problems that need correction. They can be used to support an FRA inquiry into whether there are adequate personnel resources available to the railroad to perform routine and spot track maintenance.

TRACK INSPECTION PROGRAM

Concern: Track Inspection Program

In the 1997 CSXT SACP safety audit, FRA found that track inspections were not being performed adequately to detect exceptions to FTSS, and that CSXT management was not overseeing the inspection program to insure performance of quality inspections and initiation of appropriate remedial action for detected exceptions.

In the current examination, FRA found no problems with the quality of the reports during the records and field inspections on the COBU. However, there were inadequacies in the timely submission and filing of reports. Our inspectors reported that all CSXT inspectors, who were observed, are performing much more than light repairs. In many instances, the track repairs done by CSXT inspectors prevent them from completing their required inspection frequency. This, in turn, throws the burden of completing frequency onto the already overworked Roadmaster.

Discussion:

FRA conducted records and field inspections on 32 subdivisions and 16 yards of the COBU. The records inspection revealed a serious lack of organization in the filing of reports. It was discovered that the division policy was to allow 45 days from the end of the month in which the inspection was made, until it was due in the division office. This resulted in a number of cited exceptions for failure to make records available for inspection.

Conditions found in the field closely approximate conditions being reported on CSXT inspection reports. The FRA inspectors reported that CSXT inspectors repaired most, if not all, of cited exceptions. The records often indicate the same repairs being repeated again and again. It appears that the inspectors are constantly making short term repairs to keep trains running due to

the lack of needed programed production work such as tie renewal, out-of-face surfacing, and rail renewal.

FRA concludes that COBU's inspection program is adequate. However, FRA believes that there are serious short comings in the way CSXT conducts programed production work. Also, CSXT should have noticed that reports were not being received in a timely manner, and that reports were not filed in a manner, which would facilitate the routine monitoring of the records for compliance with FTSS by either FRA or CSXT.

Field Inspection Summary:

Track Inspection Records Inspected - 13,594	Track Inspection Records Exceptions Cited - 109
Main Track Miles Inspected - 1775	Main Track Defects Cited - 453
Main Track Turnouts Inspected - 1122	Main Track Turnout Defects Cited - 157
Yard Track Miles Inspected - 173	Yard Track Defects Cited - 177
Yard Turnouts Inspected - 533	Yard Track Turnout Defects Cited - 140
Derails Inspected - 37	Derail Defects Cited - 0
RWP Observations - 76	RWP Defects Cited - 4

Recommendations:

CSXT should require inspection reports to be in the division office no later than 30 days following the end of the month in which the inspection was made. Also, a filing system should be established which would facilitate routine monitoring of the records for compliance with FTSS.

CSXT should improve program maintenance cycles for track quality to the level which will allow the inspectors to concentrate on track inspection and light repairs.

SATURATED SUBGRADE/FOULED BALLAST

Concern: Saturated Subgrade/Fouled Ballast

Subgrade and ballast sections are being compromised by water saturation, resulting in track geometry deviations and deterioration of track structure.

Discussion:

The FRA inspectors documented numerous locations of fouled ballast and/or saturated subgrade. These observations agree with the track inspection records and verbal reports from MOW employees. Not all of the muddy conditions, which caused geometry deviations, cross tie abrasion, and center breaks in concrete cross ties were cited widely as exceptions to the FTSS. One FRA inspector estimated that on the Logan Subdivision alone, there are 250-300 locations of fouled ballast and/or saturated subgrade. In addition to the muddy conditions, 59 exceptions were cited for failure to maintain the drainage ditches and culverts.

Recommendations:

CSXT should survey its tracks to determine all locations of saturated subgrade and fouled ballast.

CSXT should also prioritize the locations, develop an action plan, and begin to correct all saturated subgrade and fouled ballast conditions.

CROSS TIE CONDITIONS

Concern: Cross Tie Conditions

Lack of maintenance to the drainage system, insufficient out-of-face surfacing, and insufficient tie renewal have combined to create tie conditions in both wood and concrete cross ties that are near FRA limits.

Discussion:

Although only 67 tie defects were cited, the field inspections revealed numerous locations in curves where the gage is very close to the maximum allowable by FRA's FTSS. Inspectors reported areas where ties are barely 2" or 3" thick due to saturated subgrade and abrasion by the ballast. Both are valid indicators that there is insufficient tie maintenance and renewal on the COBU.

One 33-mile stretch of concrete ties on the Coal River Subdivision has been neglected to the point that rail seat abrasion has nearly destroyed the remaining useful life of the ties. According to an FRA track inspector, CSXT is trying to save the ties by repairing the rail seats "in-track."

Recommendations:

CSXT should increase the frequency of mechanized tie and surfacing production cycles, especially in concrete tie areas. Also, CSXT should increase the number of ties renewed during these cycles.

The 33-mile stretch of concrete ties cited above should be surfaced out of face as soon as possible. Until this occurs, the rail seat repairs should be continued. Shoulder ballast cleaning and drainage maintenance should be increased to reduce tie abrasion caused by saturated subgrade and mud.

WORN TURNOUT HARDWARE, RAIL, AND COMPONENTS

Concern: Worn Turnout Hardware, Rail, and Components

Without exception, the FRA inspectors reported numerous locations with worn turnout hardware where CSXT inspectors spend a great deal of time and effort tightening and replacing loose and missing components. These findings reflect comments heard in numerous listening sessions and were found during FRA's review of CSXT Track Inspection Records.

Discussion:

During the field inspections, FRA inspectors walked 1122 main track turnouts and cited 157 exceptions. In addition, 533 yard turnouts were inspected and 140 exceptions cited.

These reports agree completely with findings of the FRA records inspection. That CSXT inspectors are required to repair the same turnout conditions again and again is clearly a strong indication that too little attention is being given to turnout renewal.

Many of the complaints heard in the listening sessions related to the poor condition of frogs and the lack of qualified welders to maintain them. Concerns were often expressed over the lack of qualified welding supervisors to provide much needed training for the welders. Additionally, listening sessions revealed that the welders spend approximately 50 percent of their time doing track work other than welding, due to the lack of basic track maintenance forces.

Recommendations:

CSXT should conduct a survey to determine the condition of track turnouts and how much time and expense is required to maintain the turnouts in accordance with FRA's FTSS. Priorities should then be established and programs initiated to begin replacing those turnouts, which are no longer economically viable.

Until the replacement of older turnouts is accomplished, management should insure that properly trained welders concentrate on welding. Additional welders should be provided to those subdivisions with frog maintenance problems.

RAIL FAILURES (SERVICE AND DETECTED)

Concern: Rail Failures (Service and Detected)

Numerous rail failures, both service and detected, occurring on CSXT trackage, have prompted CSXT management to test some lines as frequently as every 30 to 60 days for internal rail flaws. This accelerated testing cycle has further exacerbated the joint condition in continuous welded rail (CWR).

Discussion:

FRA's records inspections reveal that from January 1, 1996, to February 28, 1999, there were 1,104 service rail failures and 7,327 detected rail failures on the COBU for a total of 8,431 rail failures. In response to these high numbers of failures, CSXT has increased the frequency of internal rail flaw testing. As a result of increased testing, more and more joints are being created in the CWR as the defective rails are replaced. There are not enough welders to weld in the replacement rails, so the joints continue to multiply.

The increased numbers of joints has placed additional burdens on the track inspectors as they must keep bolts in them, prevent them from becoming surface exceptions, and watch them for signs of gage widening. The pumping action of joints also contributes to the fouling of ballast with mud and the deterioration of the joint ties.

These defective rail conditions are prevalent on other CSXT service lanes as well. For example, on the 166.5 miles of the P&A Subdivision of the Jacksonville Service Lane from January 1, 1994 to date, there have been 1,505 detected rail failures and 84 service failures.

Recommendations:

CSXT should review the level of rail renewal and rail grinding maintenance to insure timely replacement or maintenance in high defect areas and worn curves.

ON-TRACK SAFETY

Concern: <u>On-Track Safety</u>

During listening sessions rail labor stated that contractors were not complying with FRA Roadway Worker Protection (RWP) rules.

Discussion:

FRA Track Inspectors noted 86 field observations, which revealed that CSXT is providing adequate on-track safety to employees and railroad contractors. FRA field inspection could not verify allegations concerning violations of RWP rules. In fact, no exceptions were noted concerning Engineering employees non-compliance. However, four incidents were noted by inspectors, where locomotive engineers did not sound locomotive horn and ring bell in the vicinity of Roadway Workers.

PROCEDURES MANUAL AND PRACTICES

Concern: Procedures Manual and Practices

FRA Track Inspectors found CSXT's track department was not abiding by the CSXT Procedure Manual guidelines.

Discussion:

During the 1997 CSXT SACP safety audit, FRA reviewed the CSXT's MOW Regulations and Instruction Manual. FRA concluded that the manual was a complete, comprehensive and detailed collection of CSXT track maintenance procedures and practices. In the same audit report, field investigations and interviews indicated that compliance with CSXT's own procedures manual had not been accomplished.

These findings continued during the field audit on the COBU and on the Ohio River Subdivision. These are reflected in the following comments by FRA Track Inspectors:

> One example of a failure to comply with CSXT procedures and FTSS is illustrated in the carrier officer's failure to take the proper remedial action behind the CSXT geometry test car. The car noted the geometry and gage defects over one week prior to the FRA field inspection. Three violations were recommended for their failure to take proper remedial action on the detected exceptions of the FTSS.

FRA inspectors' comments indicated that CSXT's track forces were not complying with CSXT procedures. In the FRA inspectors' opinions, with the current staffing levels and equipment availability on CSXT, track forces are struggling to maintain the track structure to comply with the minimum requirements of FTSS.

Recommendation:

CSXT's senior management should reinforce compliance with CSXT's Procedure Manual by retraining track supervisors in the track procedures and practices. However, in FRA's opinion training alone will not correct this problem. CSXT needs to increase staffing to levels that allow management and labor the time to maintain the track structure to comply with the CSXT Procedures Manual and the minimum requirements of the FTSS. CSXT should establish routine maintenance cycles for surfacing and renewal of crossties, switch timbers, turnouts, and rail. At a minimum, until these programs can be implemented, CSXT should ensure that existing basic MOW positions are maintained at full complement.

Mr. Alan F. Crown
CSX Transportation, Inc.
Vice President-General Manager
C& O Business Unit
935 Seventh Avenue
Huntington, West Virginia 25701-2313

Dear Mr. Crown:

Enclosed for your review and action is *C & O Maintenance of Way Manpower Pilot*, a Safety Assurance and Compliance Program (SACP) report, which assesses CSX Transportation Company's (CSXT) maintenance and staffing levels.

On behalf of the Federal Railroad Administration (FRA), I want to express our appreciation for the professionalism under your leadership, which was extended to the Brotherhood of Maintenance of Way Employees (BMWE), and FRA and State personnel during FRA's first SACP initiative to address Maintenance of Way (MOW) manpower issues. The pilot initiative was conducted on CSXT's Chesapeake and Ohio Business Unit (COBU) in the States of Kentucky, Ohio, Virginia and West Virginia. The goal of the pilot project was to create a formula to establish manpower needs on particular track segments.

Representatives from CSXT, BMWE, State track inspection forces, and FRA participated in the first-ever partnership initiative on a Class I railroad to assess maintenance-of-way staffing levels. The SACP process used during the pilot program involved comprehensive track and bridge inspections on the COBU encompassing 1,775 miles of main track, 225 miles of sidings and 173 miles of yard track. FRA and State track inspectors conducted walking inspections of 1,122 main line turnouts and 533 yard turnouts. A total of 13,594 records were reviewed, which included detailed inspections of COBU's track inspections, derailment and internal flaw detections, and rail service failures. Subsequent to the pilot initiative, two FRA inspectors conducted a walking and hi-rail inspection of approximately 234 miles of mail line track, 93 main line turnouts, 3 miles of yard trackage, and 8 yard turnouts on the COBU. Listening sessions were conducted with over 330 CSXT employees and first line supervisors who are responsible for maintaining the track structures and bridges at sixteen different locations across the business unit in the four-state geographic area. The findings from this SACP process formed the basis for the results in the report and recommended course of action.

At the outset, we agreed that a manpower pilot initiative on the COBU would provide indicators that would be representative of system-wide conditions on CSXT. FRA track inspectors used publicly-released system-wide data on CSXT staffing levels and track component replacement levels, coupled with site-specific track inspections, results from inspections performed by FRA's track geometry car, and SACP listening sessions, to determine if there were systemic or localized

problems that need correction. The SACP process also involved a comprehensive review of CSXT staffing levels, track maintenance, and inspection practices on the COBU. The recommendations in the enclosed report reflect FRA's concerns about safety in the pilot area and also system-wide issues that need to be addressed. These are the adequacy of maintenance of way manpower levels, replacement of rail, ties, and ballast, and track surface renewal.

While FRA did not identify any track-related safety hazards, which pose an immediate derailment risk, a number of identified concerns require CSXT to take immediate remedial action to ensure continued compliance with Federal track safety standards.

FRA requests that CSXT submit a formal SACP Action Plan within thirty days of receipt of this letter which addresses the report's recommendations for the COBU, the Ohio River subdivision, and CSXT system-wide concerns on staffing, mechanized gang cycles, and replacement of worn rail, defective ties, and ballast renewal. Please let me know if FRA can assist your efforts to comply with this important SACP initiative. Thank you again for your courtesy and support during this important safety initiative.

Sincerely,

George Gavalla
Associate Administrator
For Safety

Enclosure

Joe Lydick: 6/30/99;lgl:7/16/99;jfs:7/19/99.
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cc: Frank Pursley, Jim Schultz, Tom Schmidt, Roy Dean, RCC, ROA1-4, RRS-10, Lydia

TABLE 1
SELECTED RAILROAD STATISTICS
CSX Transportation (CSXT)Versus Norfolk Southern Corporation (NS) Versus The Class I Railroad Industry (RR)
1995-1998

	1998			1997		
	CSXT	NS	RR	CSXT	NS	RR
TOTAL MILES OF TRACK	30,734	25,203	NA	30,941	25,253	199,347
% TOTAL TO RR TOTAL	NA	NA	100.00	15.52	12.67	100.00
TOTAL MAINTENANCE OF WAY EMPLOYEES	5,809	5,089	39,235	5,641	5,163	39,582
%TOTAL TO RR TOTAL	14.26	13.11	100.00	14.25	13.04	100.00
TOTAL EMPLOYEES	28,358	23,847	180,337	27,871	23,323	177,981
% MAINTENANCE OF WAY EMPLOYEES TO TOTAL EMPLOYEES	20.48	21.34	21.76	20.24	22.14	22.24
NUMBER MOW EMPLOYEES NEEDED TO BRING MOW EMPLOYEE AVERAGE UP TO % OF CLASS I RR MILES OF TRACK OPERATED	NA	NA	0	594	-172	0
NUMBER MOW EMPLOYEES NEEDED TO BRING MOW EMPLOYEE AVERAGE UP TO CLASS I RR MOW EMPLOYEE AVERAGE	463	128	0	718	31	0

TABLE 1 (Continued)
SELECTED RAILROAD STATISTICS
CSX Transportation (CSXT)Versus Norfolk Southern Corporation (NS) Versus The Class I Railroad Industry (RR)
1995-1998

		1996			1995		
	CSXT	NS	RR	CSXT	NS	RR	
TOTAL MILES OF TRACK	31,365	25,082	206,237	31,961	25,236	206,314	
% TOTAL TO RR TOTAL	15.21	12.16	100.00	15.49	12.23	100.00	
TOTAL MAINTENANCE OF WAY EMPLOYEES	5,635	5,182	39,519	6,096	5,333	40,033	
%TOTAL TO RR TOTAL	14.26	13.11	100.00	15.23	13.32	100.00	
TOTAL EMPLOYEES	28,559	23,361	181,809	29,418	24,488	188,215	
% MAINTENANCE OF WAY EMPLOYEES TO TOTAL EMPLOYEES	19.73	22.18	21.74	20.72	21.78	21.27	
NUMBER MOW EMPLOYEES NEEDED TO BRING MOW EMPLOYEE AVERAGE UP TO % OF CLASS I RR MILES OF TRACK OPERATED	443	-429	0	124	-498	0	
NUMBER MOW EMPLOYEES NEEDED TO BRING MOW EMPLOYEE AVERAGE UP TO CLASS I RR MOW EMPLOYEE AVERAGE	733	-132	0	204	-158	0	

TABLE 2
SUMMARY OF TRACK STATISTICS
(Information from STB Form R-1 Annual Report, and AAR Green Book)
CSXT Versus NS Versus The Class I Railroad Industry (RR)
1995-1998

	1998		
	CSXT	NS	RR
Miles of Track Operated (excluding trackage rights)	28,333	22,383	NA
Total Ties in Maintained Track	NA	NA	NA
Gross Ton-Miles Per Mile of Maintained Track	NA	NA	NA
Ties Laid in Replacement:			
New	1,942,304	1,813,413	NA
Total	1,973,832	2,009,597	NA
Switch & Bridge (Board Feet)	5,276,625	6,787,619	NA
Average Number of Ties Per Mile of Maintained Track	NA	NA	NA
Average New Ties Laid in Replacement Per Mile of Track	69	81	NA
% New Ties Laid in Replacement to Total Ties Maintained Track	NA	NA	NA
Rail Laid in Replacement			
New–Tons	NA	NA	NA
Estimated Tons of Rail in Maintained Track	NA	NA	NA
New Rail Tons Laid in Replacement as % of Estimated Tons of Rail in Maintained Track	NA	NA	NA
Rail-Miles of Rail Replaced	806	714	NA
% Rail-Miles of Rail Replaced	1.42	1.59	NA
Miles of Track Surfaced	4,619	4,715	NA
% of Total Track Surfaced	16.3	21.1	NA

	1998		
	CSXT	NS	RR

Average Weight of Rail (Pounds Per Yard)	NA	NA	NA
Cubic Yards of Ballast Placed	1,016,929	1,952,814	NA
Miles of Track Operated as a Percent of RR Total	NA	NA	100.0
Total Ties in Maintained Track as a Percent of RR Total	NA	NA	100.0
Miles of Track surfaced as a Percent of RR Total	NA	NA	100.0
Cubic Yards of Ballast Placed as a Percent of RR Total	NA	NA	100.0

TABLE 2 (Continued)
SUMMARY OF TRACK STATISTICS
(Information from STB Form R-1 Annual Report, and AAR Green Book)
CSXT Versus NS Versus The Class I Railroad Industry (RR)
1995-1998

	1997		
	CSXT	NS	RR
Miles of Track Operated (excluding trackage rights)	28,540	22,427	172,564
Total Ties in Maintained Track	85,248,980	69,747,970	524,454,182
Gross Ton-Miles Per Mile of Maintained Track	12,549,000	12,091,000	16,167,000
Ties Laid in Replacement:			
New	1,976,985	1,811,738	11,379,006
Total	1,990,275	2,093,202	11,862,186
Switch & Bridge (Board Feet)	5,303,515	8,896,661	30,594,197
Average Number of Ties Per Mile of Maintained Track	2,987	3,110	3,039
Average New Ties Laid in Replacement Per Mile of Track	69	81	66
% New Ties Laid in Replacement to Total Ties Maintained Track	2.32	2.60	2.17
Rail Laid in Replacement New–Tons	63,265	57,796	481,064
Estimated Tons of Rail in Maintained Track	6,278,800	4,972,968	37,660,367
New Rail Tons Laid in Replacement as % of Estimated Tons of Rail in Maintained Track	1.01	1.16	1.28
Rail-Miles of Rail Replaced	768	656	5,697
% Rail-Miles of Rail Replaced	1.35	1.46	1.65
Miles of Track Surfaced	5,355	4,703	33,938
% of Total Track Surfaced	18.8	21.0	19.7

	1997		
	CSXT	NS	RR
Average Weight of Rail (Pounds Per Yard)	125	126	124
Cubic Yards of Ballast Placed	1,100,213	2,024,116	13,793,455
Miles of Track Operated as a Percent of RR Total	16.54	13.0	100.0
Total Ties in Maintained Track as a Percent of RR Total	16.25	13.3	100.0
Miles of Track surfaced as a Percent of RR Total	15.78	13.86	100.0
Cubic Yards of Ballast Placed as a Percent of RR Total	7.98	14.67	100.0

TABLE 2 (Continued)
SUMMARY OF TRACK STATISTICS
(Information from STB Form R-1 Annual Report, and AAR Green Book)
CSXT Versus NS Versus The Class I Railroad Industry (RR)
1995-1998

	1996		
	CSXT	NS	RR
Miles of Track Operated (excluding trackage rights)	28,957	22,369	176,978
Total Ties in Maintained Track	86,494,559	69,567,590	537,919,756
Gross Ton-Miles Per Mile of Maintained Track	12,012,000	11,749,000	15,237,000
Ties Laid in Replacement			
New	1,897,263	1,811,426	12,822,466
Total	2,009,785	2,037,689	13,447,798
Switch & Bridge (Board Feet)	5,187,361	6,451,529	40,829,785
Average Number of Ties Per Mile of Maintained Track	2,987	3,110	3,039
Average New Ties Laid in Replacement Per Mile of Track	66	81	72
% New Ties Laid in Replacement to Total Ties Maintained Track	2.19	2.60	2.38
Rail Laid in Replacement: New–Tons	47,419	59,469	454,426
Estimated tons of Rail in Maintained Track	6,319,576	4,960,549	38,312,197
New rail Tons Laid in Replacement as % of Estimated Tons of Rail in Maintained Track	0.75	1.2	1.19
Rail-Miles of Rail Replaced	678	631	7,145
% Rail-Miles of Rail Replaced	1.17	1.41	2.02
Miles of Track Surfaced	5,170	4,690	38,246
% of Total Track Surfaced	17.9	21.0	21.6

	1996		
	CSXT	NS	RR
Average Weight of Rail (Pounds Per Yard)	124	126	123
Cubic Yards of Ballast Placed	1,305,329	2,168,297	16,020,764
Miles of Track Operated as a Percent of RR Total	16.36	12.64	100.0
Total Ties in Maintained Track as a Percent of RR Total	16.08	12.93	100.0
Miles of Track surfaced as a Percent of RR Total	13.52	12.26	100.0
Cubic Yards of Ballast Placed as a Percent of RR Total	8.15	13.53	100.0

TABLE 2 (Continued)
SUMMARY OF TRACK STATISTICS
(Information from STB Form R-1 Annual Report, and AAR Green Book)
CSXT Versus NS Versus The Class I Railroad Industry (RR)
1995-1998

	1995		
	CSXT	NS	RR
Miles of Track Operated (excluding trackage rights)	29,113	22,514	180,419
Total Ties in Maintained Track	86,960,531	70,018,540	548,346,181
Gross Ton-Miles Per Mile of Maintained Track	11,874,000	11,389,000	14,694,000
Ties Laid in Replacement			
New	1,902,346	1,816,975	11,260,110
Total	2,069,748	1,998,551	12,081,297
Switch & Bridge (Board Feet)	6,670,105	11,608,100	40,000,454
Average Number of Ties Per Mile of Maintained Track	2,987	3,110	3,039
Average New Ties Laid in Replacement Per Mile of Track	65	81	62
% New Ties Laid in Replacement to Total Ties Maintained Track	2.19	2.59	2.05
Rail Laid in Replacement:			
New–Tons	39,987	72,479	408,477
Estimated Tons of rail in Maintained Track	6,353,621	4,953,080	38,739,568
New Rail Tons Laid in Replacement as % of Estimated Tons of Rail in Maintained Track	0.63	1.46	1.05
Rail-Miles of Rail Replaced	705	718	5,739.34
% Rail-Miles of Rail Replaced	1.21	1.59	1.59
Miles of Track Surfaced	6,051	4,668	35,567
% of Total Track Surfaced	20.8	20.7	19.7

	1995		
	CSXT	NS	RR
Average Weight of Rail (Pounds Per Yard)	124	125	122
Cubic Yards of Ballast Placed	1,427,794	2,120,400	14,582,416
Miles of Track Operated as a Percent of RR Total	16.14	12.48	100.0
Total Ties in Maintained Track as a Percent of RR Total	15.86	12.77	100.0
Miles of Track surfaced as a Percent of RR Total	17.01	13.12	100.0
Cubic Yards of Ballast Placed as a Percent of RR Total	9.79	14.54	100.0



TABLE 3
TRACK COMPONENT REPLACEMENT ANALYSIS
1997

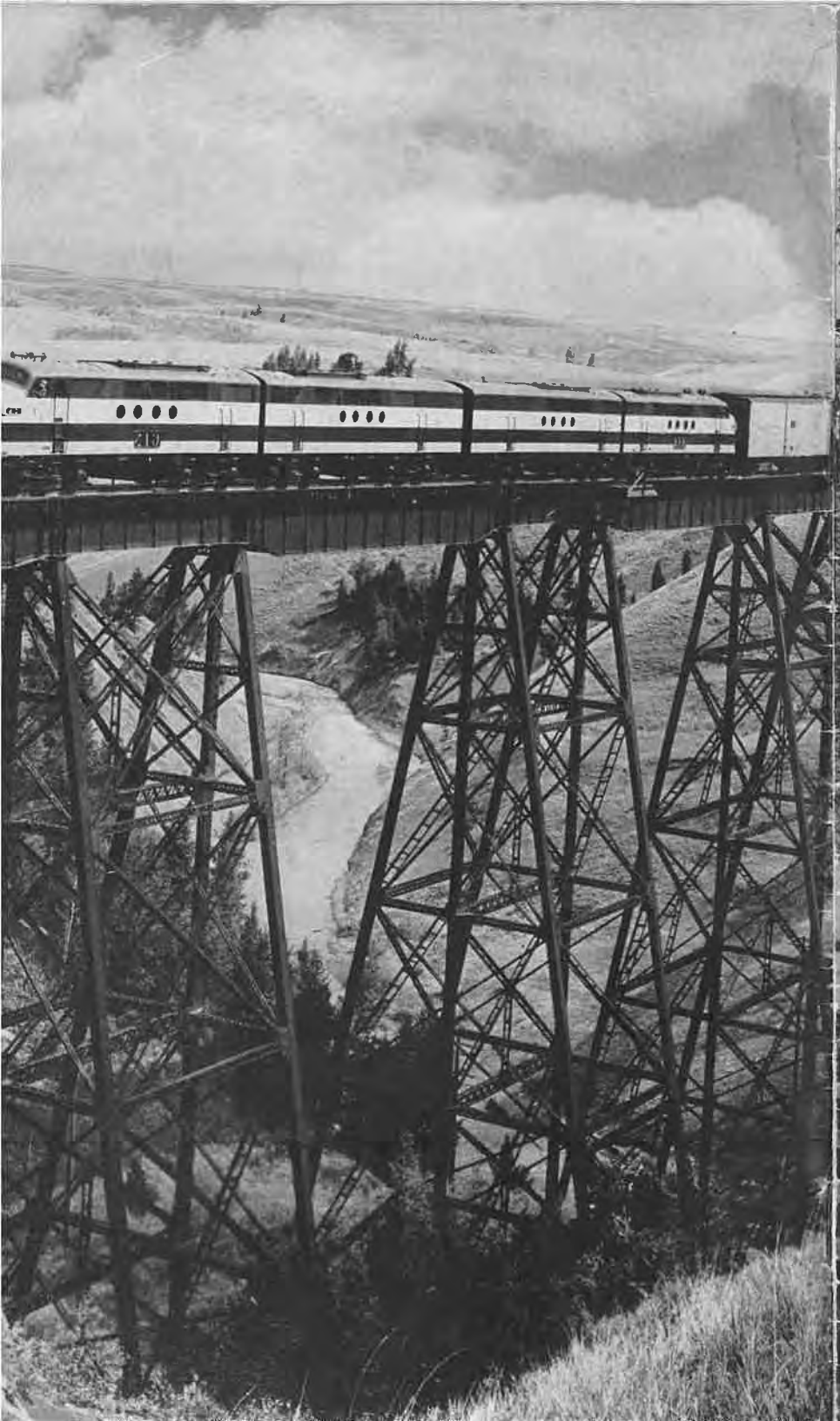
	CSXT	NS	RR
ASSUMING A 40-YEAR TIE LIFE: ADDITIONAL NEW TIES LAID IN REPLACEMENT NEEDED TO BRING AVERAGE ANNUAL NEW TIES LAID IN REPLACEMENT UP TO 2.5 %	154,240	- 68,039	1,732,348
ASSUMING A 60-YEAR RAIL LIFE: ADDITIONAL RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT NEEDED TO BRING RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	188	94.6	68
ASSUMING A 60-YEAR RAIL LIFE: TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	42,297	25,682	150,375
TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO RR NEW RAIL TONS LAID IN REPLACEMENT AS A % OF ESTIMATED TONS OF RAIL IN MAINTAINED TRACK	17,326	5,934	0
ADDITIONAL MILES OF TRACK SURFACED NEEDED TO BRING PERCENT UP TO: PERCENT MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	310	- 335	0
ADDITIONAL CUBIC YARDS OF BALLAST NEEDED TO BRING PERCENT UP TO: PERCENT MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	1,415,318	- 265,479	0

TABLE 3 (Continued)
TRACK COMPONENT REPLACEMENT ANALYSIS
1996

	CSXT	NS	RR
ASSUMING A 40-YEAR TIE LIFE: ADDITIONAL NEW TIES LAID IN REPLACEMENT NEEDED TO BRING AVERAGE ANNUAL NEW TIES LAID IN REPLACEMENT UP TO 2.5 %	271,898	- 74,088	641,566
ASSUMING A 60-YEAR RAIL LIFE: ADDITIONAL RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT NEEDED TO BRING RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	294	118	- 1,255
ASSUMING A 60-YEAR RAIL LIFE: TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	59,105	23,769	188,537
TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO RR NEW RAIL TONS LAID IN REPLACEMENT AS A % OF ESTIMATED TONS OF RAIL IN MAINTAINED TRACK	28,119	- 443	0
ADDITIONAL MILES OF TRACK SURFACED NEEDED TO BRING PERCENT UP TO: PERCENT MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	1,300	153	0
ADDITIONAL CUBIC YARDS OF BALLAST NEEDED TO BRING PERCENT UP TO: MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	1,405,028	- 164,002	0

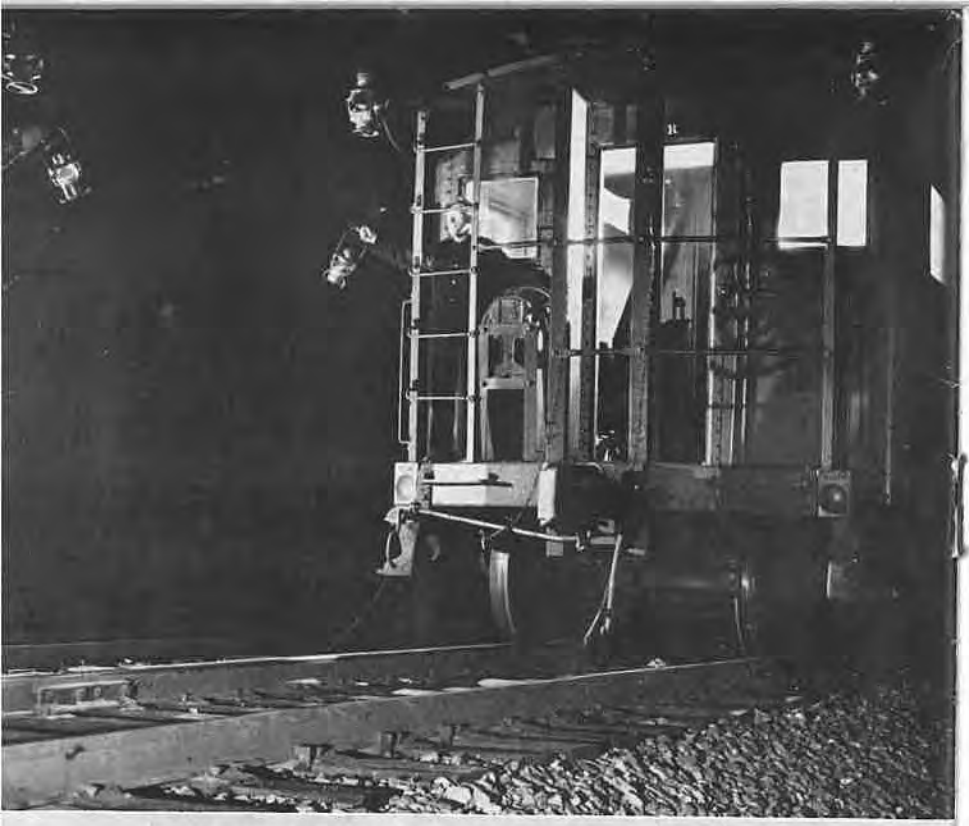
TABLE 3 (Continued)
TRACK COMPONENT REPLACEMENT ANALYSIS
1995

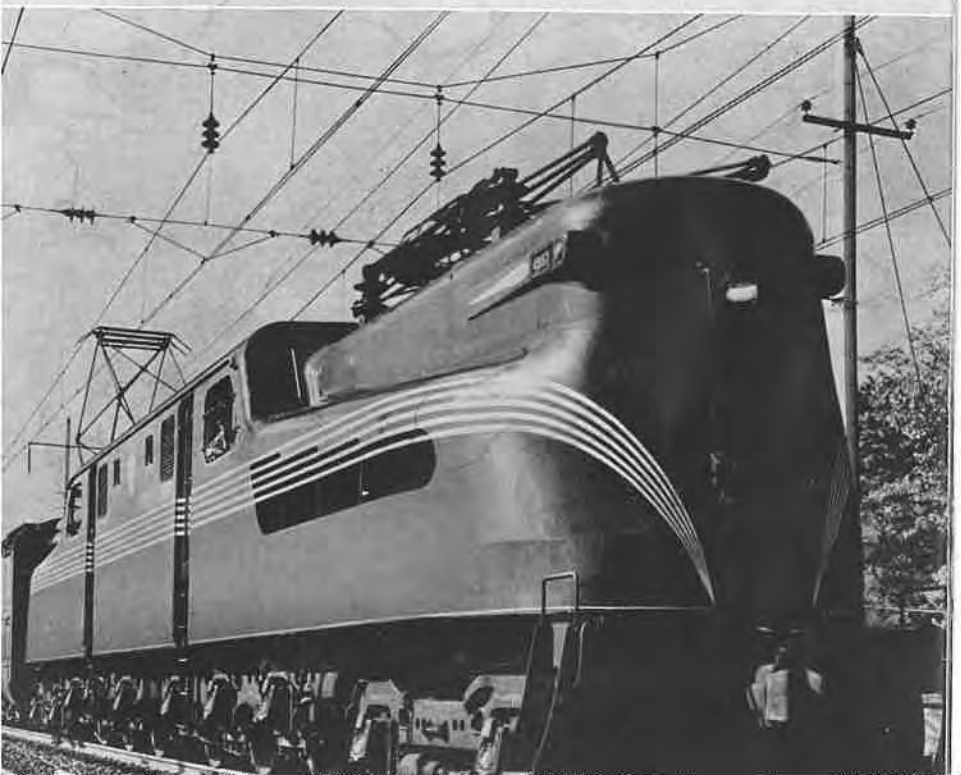
	CSXT	NS	RR
ASSUMING A 40-YEAR TIE LIFE: ADDITIONAL NEW TIES LAID IN REPLACEMENT NEEDED TO BRING AVERAGE ANNUAL NEW TIES LAID IN REPLACEMENT UP TO 2.5 %	278,633	- 68,216	2,203,635
ASSUMING A 60-YEAR RAIL LIFE: ADDITIONAL RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT NEEDED TO BRING RAIL-MILES OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	272	35	292
ASSUMING A 60-YEAR RAIL LIFE: TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO 1.67%	67,241	10,411	242,524
TONS OF ADDITIONAL NEW RAIL NEEDED TO BRING TONS OF NEW RAIL LAID IN REPLACEMENT UP TO RR NEW RAIL TONS LAID IN REPLACEMENT AS A % OF ESTIMATED TONS OF RAIL IN MAINTAINED TRACK	27,010	- 20,689	0
ADDITIONAL MILES OF TRACK SURFACED NEEDED TO BRING PERCENT UP TO: PERCENT MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	- 370	- 262	0
ADDITIONAL CUBIC YARDS OF BALLAST NEEDED TO BRING PERCENT UP TO: MILES OF TRACK OPERATED AS A PERCENT OF RR TOTAL	1,103,992	- 343,366	0



THE HUMAN SIDE OF RAILROADING

ASSOCIATION OF AMERICAN RAILROADS





The Human Side of Railroading

by

Carlton J. Corliss



ASSOCIATION OF AMERICAN RAILROADS
WASHINGTON, D. C.
JANUARY, 1954

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Railroaders

Probably there are no finer, nor more faithful and useful men in the country than the railroad workers. They live in the towns and cities of the country, where they own homes, belong to business and civic organizations, support the schools and churches and engage in the social life of their communities as prized and respected members.

—Gulfport (Miss.) Herald

The Human Side of Railroading

When we think and speak of railroads, many of us envision railway tracks with which we are familiar, railway yards and stations, bridges, shops, roundhouses, locomotives, cars, and trains.

All these things which go to make the railway plant are extremely important, of course, but they are inanimate and lifeless by themselves. What imparts life and energy to the railroads is the great army of men and women which comprises the railway organization.

Tracks, buildings, locomotives and cars are of man's making, built to enable him to perform the gigantic tasks of transportation. The American railway system—by far the most extensive network of railroads in the world—represents one of the greatest achievements in the history of mankind. Thousands of the most ingenious minds of the modern age and millions of workers have contributed to the creation, development and operation of this vast transportation system.

The Railway Family

Nearly one and a half million men and women are required to operate the railroads of the United States, including the Railway Express Agency and The Pullman Company. Together with their families, they constitute a group of about 4,500,000 persons—more than the entire population of North Dakota, South Dakota, Montana, Idaho, Colorado, and Utah. They live in every city and nearly every important town in America. They are neighbors of ours. Some of them may belong to our church; some of their children probably attend our school.

This "Railway Family" represents the human side of railroading. Dad, Brother or Sister may be the wage earner. But Mother and other members of the family, by looking after the wants of those who work on the railroads, are performing an essential part in keeping the trains running. They are all true railroaders. They live by and for the railroad which gives them their livelihood. Their habits are governed by the railroad clock.

Railroads never close down. They run twenty-four hours a day, every day in the year. While most of us are asleep, thousands of passenger, express, mail and freight trains are speeding through the night, to and from the busy terminals, performing their great and essential tasks of moving the nation's commerce and carrying passengers safely and comfortably upon their myriad errands.

Therefore, night workers as well as day workers are required to man these trains, to operate stations, signals and telegraph instruments, to protect tracks and crossings, to turn switches, and to keep locomotives and cars in condition. Thus, at all hours of the

day and night, workers are coming on and going off duty, without a moment's interruption in train operations.

When we visit a large railway terminal and see the trains hurrying in and out, and the tireless switch-engines shifting cars and making up trains, we wonder how it is possible for the railroads to operate without confusion. And when we reflect that this is but one of many terminals in the United States and that many thousands of trains are on the rails day and night, every day of the year, we are impressed not only by the magnitude but also by the intricate and complex character of railway operations.

If we look behind the scenes we shall have a better understanding of "how the railroad works." We shall come to realize that the secret of modern railway efficiency lies in the teamwork of the great army of intelligent, skillful and dependable railroad workers.

The Railway Organization

In order to understand how a railroad is operated, a brief outline of the railway organization is necessary. First, it should be understood that there are in the United States several hundred separate and distinct railway properties, ranging in size from roads only a few miles in length, run by a few men and operating only a few locomotives and cars, up to huge systems manned by large numbers of workers, operating thousands of miles of tracks and thousands of locomotives and cars. Obviously, the organizations required to operate these railroads differ.

Generally speaking, however, the railway organization is divided into the following departments—Executive, Operating, Transportation, Engineering and Maintenance, Mechanical, Traffic, Law, Treasury, Accounting, and Purchasing and Stores. On many railroads the Transportation, Engineering and Maintenance, and Mechanical departments are branches of the Operating Department.

Executive Department, headed by the President, includes as a rule the several Vice Presidents and other corporate officers, as well as the President's staff of personal assistants. The President is the responsible head of the railway organization. He is accountable to the Board of Directors and to the stockholders for the property and its efficient operation.

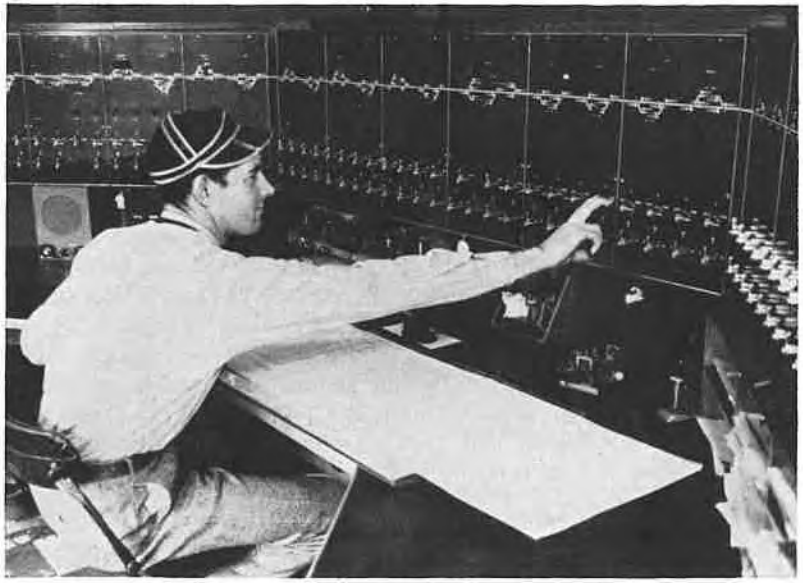
Operating Department. With respect to the number of persons employed, this is the largest department in the railway organization. It operates trains, yards, freight and passenger stations, and usually has supervision over the maintenance of the railway plant.

On the larger railroads, the head of this department is usually a Vice President. Under him may be a General Manager, General

Superintendents in charge of divisions, and officers heading up the Transportation, Mechanical and Engineering departments.

Transportation: The transportation functions are concerned directly with the receipt, movement and delivery of freight, and with the transportation of passengers, mail, and express, and come under a Chief Transportation Officer, or General Superintendent of Transportation. The transportation staff, as subdivided into divisions for operational purposes, is headed by a division superintendent and a trainmaster, the latter having immediate supervision over all trains on the division as well as supervision over terminal activities. His subordinates include assistant trainmaster; yardmasters, who have charge of switching and terminal work; a chief dispatcher and dispatchers who direct train movements; stationmasters and agents, and the engine and train crews.

Mechanical: The staff is usually headed by a Chief Mechanical Officer or a Superintendent of Motive Power under whom are master mechanics in charge of locomotive repair shops, and foremen in charge of roundhouses, as well as car-building plants and car-repair plants. The Mechanical Department functions are primarily the inspection, servicing and maintenance of the rolling stock—locomotives and cars—and the operation of shops, roundhouses and other mechanical facilities for the construction, repair and servicing of equipment.



Centralized Traffic Control of Train Operations

Engineering: Usually headed by a Chief Engineer, the Engineering Department is responsible for the construction and maintenance of roadway, tracks, signals, bridges, tunnels, yards, station and shop buildings, coaling and water stations, and other facilities. Under the Chief Engineer are the Engineer of Construction, the Engineer of Maintenance of Way, and other general engineering officers. For maintenance purposes, the roadway is divided into divisions, districts, and sections, with roadmasters in charge of divisions, road supervisors in charge of districts, and section foremen in charge of sections.

Traffic Department, usually headed by a Vice President or a Chief Traffic Officer, is the "sales department" of the railroad, having charge of the procurement of freight and passenger business. The department is usually divided into two sections, one dealing with freight matters and the other dealing with passenger matters. Many railroads maintain traffic or commercial offices in the larger cities, both on and off their lines, and seek freight and passenger traffic through local representatives, known variously as general commercial agents, freight traffic agents, passenger agents, and so on. Other important functions of the Traffic Department are the formulation of proposals for freight rates and passenger fares, the publication and distribution of tariffs or rate schedules, the presentation of testimony on rates before rate regulating bodies, the classification of freight through joint bureaus and committees, the planning, in conjunction with operating officers, of freight and passenger schedules, and the preparation and publication of timetables and advertising material.

The promotion of agricultural and industrial development is still another important function of the Traffic Department on many railroads. On a few railroads this function is performed by a separate department, the head of which reports to the President.

Law Department, usually headed by a Vice President and General Counsel or a General Counsel, is responsible for the proper handling of all matters where special knowledge of the law is required, such as the drafting of briefs, contracts, mortgages, deeds, and other legal documents. Members of the Law Department represent the railroad before courts, state railway commissions, the Interstate Commerce Commission, and legislative committees. The head of the department usually has general supervision over personal injury claims, property damage claims, and tax matters. The major positions in this department are essentially filled by persons versed in the law.

Accounting Department, usually headed by a Vice President, Comptroller, or General Auditor, performs the vast accounting work required in connection with railroad operations. It portrays in figures the operations of the railroad and its financial posi-



Directing Car Movements in the Freight Yard

tion. The auditing of departmental and station accounts, bills, vouchers, and payrolls, the compilation of statistics, and the preparation of statistical and financial reports are among the duties of this department.

Treasury Department, headed by the Treasurer of the company, receives and disburses money, checks, and vouchers, issues or approves checks, attends to the banking, issues pay-checks, and performs numerous other duties having to do with the financial affairs of the railroad.

Purchasing and Stores Department, usually under a Vice President or General Purchasing Agent, is charged with the responsibility of keeping the railroad supplied with materials of all kinds. The Purchasing Agent, the General Storekeeper and their staffs attend to the proper storage and distribution of supplies, keep the inventories, place orders, fill requisitions, issue vouchers, and perform numerous other duties incident to buying, storing, and distributing fuel, materials, and supplies required for the efficient operation of the railroad.

Some railroads have a ***Personnel Department.*** Activities of the Personnel Department may include the preparation of job analyses or job descriptions, interviewing and guiding applicants for employment, keeping a roster of vacancies available, conducting negotiations on wages and working conditions with representatives of labor organizations, and handling matters in connection with contracts resulting from these negotiations.

Many railway organizations include a ***Public Relations Department,*** the major functions of which are to keep the public informed concerning railway affairs insofar as they affect the public interest. The facts about railway performance, progress and problems are presented in a variety of ways, including advertisements in newspapers and magazines, booklets, pamphlets, bulletins, news stories, public addresses before business and professional groups and schools, as well as by radio and television. Requests for information about railroads are usually handled by the Public Relations Department.

In addition to the departments heretofore mentioned, some railroads have other departments, the names of which describe their functions, such as the **Real Estate and Tax Department,** the **Insurance Department,** and the **Police (or Protective) Department.** With few exceptions, however, these are branches of one of the principal departments mentioned above.

Each major department of the railroad requires special training for its officers and employees. In some departments, such as Law and Engineering, those who reach the higher positions are in most cases college-trained men. In other departments college training is not so necessary, except for certain positions requiring technical knowledge, such as electrical, civil, mechanical, and chemical engineering.

Government Regulation

The Interstate Commerce Commission of the Federal Government and the various State regulatory commissions exercise some measure of control over railway operations. Rates which a railroad charges for the transportation of freight or passengers must be filed with the Interstate Commerce Commission and state regulatory commissions, and are subject to their approval. Such rates must be published and strictly observed. A railroad may not build a new line or abandon an old one without permission of the Interstate Commerce Commission. A railroad must also have the Commission's approval before it can sell securities or borrow money.

The Railroad Retirement Board of the United States Government supervises the retirement and pensioning of railway employees, as well as the collection and disbursement of unemployment insurance and sickness benefit funds. The benefits of the railroad retirement system are greater than those of the general social security system, under which other commercial and industrial organizations operate, but the cost to the railroads and their employees is much heavier. Under the railroad retirement system, the tax on wages (up to $3,600 per year) is 12½ per cent, of which 6¼ per cent is paid by the employee, and 6¼ per cent by the employer. Added to the

foregoing is a federal unemployment compensation tax—paid by the railway company—amounting to ½ of 1 per cent on wages up to $3,600 a year.

Railway Labor Unions

Around 80 to 85 per cent of all railway workers are represented by labor organizations. There are more than twenty such unions or brotherhoods in the railway industry. Members of these unions negotiate with the railroads through chosen representatives. In the course of many years of negotiations, an extensive and complicated system of rules and regulations governing wage schedules and working conditions has been developed.



A Signal Maintainer on the Job

The Railway Payroll

Railroads are among the largest employers of labor in America. By far the most important item in their operating budget is their payroll. In 1952, out of every dollar of operating revenue taken in by Class I railroads (roads with annual revenues of more than $1,000,000 each) 47.8 cents were paid out in wages, and 2.8 cents were paid out in payroll taxes for the support of railroad retirement and unemployment compensation systems for the benefit of employees—a total of 50.6 cents for both purposes.

Average hourly earnings of railway employees have been moving upward in recent years. Today the wage level of American railway labor is the highest it has ever been.

Here is how average straight time hourly earnings and annual earnings of railroad employees have gone up:

Year	*Straight Time Hourly Earnings*	*Earnings per Year*
1940	77.5 cents	$1,913
1945	97.2 cents	2,718

Year	*Straight Time Hourly Earnings*	*Earnings per Year*
1949	150.6 cents	$3,709
1950	165.4 cents*	3,785*
1951	184.1 cents*	4,182*
1952	193.6 cents*	4,352*

* Includes retroactive wage increases.

Many Occupations

Railway employees are divided by the Interstate Commerce Commission into 128 classifications, embracing practically every type of worker and professional man. Although, as pointed out, law, engineering, and the technical positions require university training or its equivalent, large numbers of railway workers have achieved advancement and success without having had the educational advantages offered by our institutions of higher learning.

Early in 1951 an analysis was made of the careers of 76 railway presidents—men who had risen from the ranks and reached the pinnacle of success in the railway world. It was found that 52 of them received formal education beyond high school training, and that 24 received no formal education after either elementary or high school training. The college trained man doubtless stands a better chance of getting to the top than the man who does not possess a college training. But the record shows that the door of opportunity in the railway field is not closed to the man without college training if he has the right qualities of leadership.



Sorting Waybills in a Railway Office



Every Train Service Employee is a Good Will Representative of His Railroad

Opportunities in the Railway Field

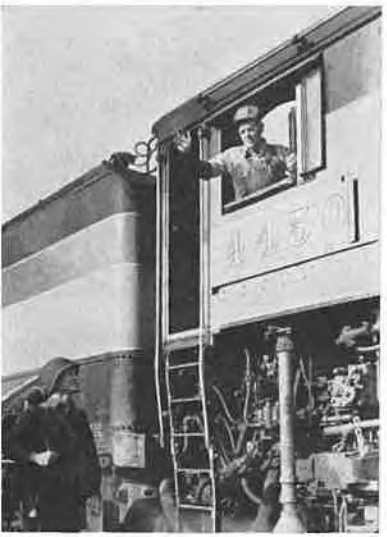
What are the opportunities for young men and women in the railway field? What qualifications are necessary to obtain employment and advancement? These are questions which thousands of young men and women coming out of high schools and colleges are asking today.

The answer is that there are many opportunities in the railway business, as in any other business, for alert, intelligent, and ambitious young men and women who are willing to start in minor positions and apply themselves diligently to the task of mastering the jobs to which they are assigned.

Thousands of young men and women enter the railway field each year. They are selected because they possess the qualities mentioned and because they have the education and training which enable them to perform the duties to which they are assigned. Of these thousands, many drop out or lose interest in their work or become impatient because advancement does not come as rapidly as expected. It would be the same regardless of the type of business they entered. On the other hand, many young railroaders become interested in their work and perform their duties so well that they earn the commendation of their supervisors and receive favorable consideration for advancement when vacancies occur.

Some years ago the president of one of the large railway systems —who began his career as an engineering apprentice at $60 a month—wrote an article entitled "What I Look for in Young Men." Here are some of the things he said:

"Because of the great importance of the human element in modern business, the young man embarking upon his career must first make certain of selecting the vocation for which he is best suited. One of the chief reasons why many men fail of success in the business world is that they are misfits—round pegs in square holes. When that happens, not only they but their employers and society in general are losers.



Friendliness is a Railroad Tradition

"If a young man goes into railroad work, his reason for doing so should be, first of all, because he believes it is the career with the most appeal for him and for which he is best qualified. Similar considerations should guide him in selecting any other field of endeavor.

"One important reason why it is essential for a young man to have a real liking for his work is that no one can put his best into work which has no attraction for him. The day's work then degenerates into drudgery, and thus another clock watcher is born.

"The man who looks forward to each day as a fresh adventure, bringing new obstacles to be hurdled and new problems to be solved, finds a zest in his work, and so absorbed does he become in his day's tasks that closing time may pass almost unnoticed.

"It is easy to do what one likes to do. A man who enjoys his work achieves more success than do less happy workers. With each victory comes increased zest for the attainments of still greater objectives. Pleasant work is stimulating, while uninteresting work is fatiguing. Thus it is that the men who are in their proper fields of endeavor find their work growing constantly more engrossing as the years go by.

"The next qualification to be looked for in a young man is education sufficient to enable him to perform his work satisfactorily. That may be grammer school, high school or college training, but, whatever is needed, he must have it if he is to achieve even a successful start. Morever, he must be willing to study and improve his mind. The field of knowledge in all branches of learning is constantly expanding, and unless a man keeps on studying and learning he is soon uneducated. As a matter of fact, the days spent in school should be considered largely as a period of preparation for education, for they serve principally to discipline and train the mind. Business education begins after graduation."

Seeking Employment

What are some of the steps which should be taken by a young man or woman to obtain employment on the railroads? The first step might well be a detailed study of the railway organization. Some time might profitably be spent with a copy of the *Official Guide of the Railways*, or the *Pocket List of Railroad Officials*, studying the size, departmental organizations and personnel of the various railroads. From either of those volumes one should select the names and addresses of the railway officers heading the particular department, division or branch of railway service in which he or she wishes to obtain employment. The next step would be to apply to such officers or their assistants in person, if convenient, or by letter, or both.

One should not be easily discouraged in this campaign of personal salesmanship. Railroads, like other businesses, have only a limited number of openings for beginners, and, in normal times, the number of applicants is greater than the number of vacancies to be filled. Inevitably, some must be disappointed.

Opportunities for young men in the railroad field are varied.



Safe and Dependable Train Operations are the Result of Teamwork Throughout the Railway Organization



Lineman Repairing Communication Lines

For instance, the youth just out of school, who possesses a strong physique and a mechanical turn of mind and who is not afraid of hard work, might find employment in the mechanical branch as an apprentice or helper in shop work. In the Maintenance of Way Department the beginner's job is usually that of track apprentice. In train and engine service, it is usually as a fireman or brakeman "on the extra board," which means taking runs for which a regular man is not available. In signalling, a beginner starts as a helper in signal construction or maintenance work. A young man who enters a railway office usually starts as office boy, messenger boy, or possibly a junior clerk. In addition to these, there are other jobs for beginners in storehouses, freight warehouses, and elsewhere.

There are opportunities for technically-trained young men in the field of railway engineering and electronics. The railroads have hundreds of research projects under way. Improved use of fuels, greater power, greater strength of metals, greater safety, greater ease of operation—these are just a few of the developments in locomotives alone. Scientific research is carried on both in the laboratory and out on the road, resulting in steady improvements in all kinds of equipment. Roadway workers now have track laying machines, powered spike hammers, ballast tampers, and ballast cleaning machines to help them. Many railway research projects are aimed at improving the methods used in office work. Every new method and every new machine is closely studied by the railroad. Whenever the methods or machines prove useful they are put to work. Care is exercised in obtaining qualified, dependable personnel in all departments of railroading.

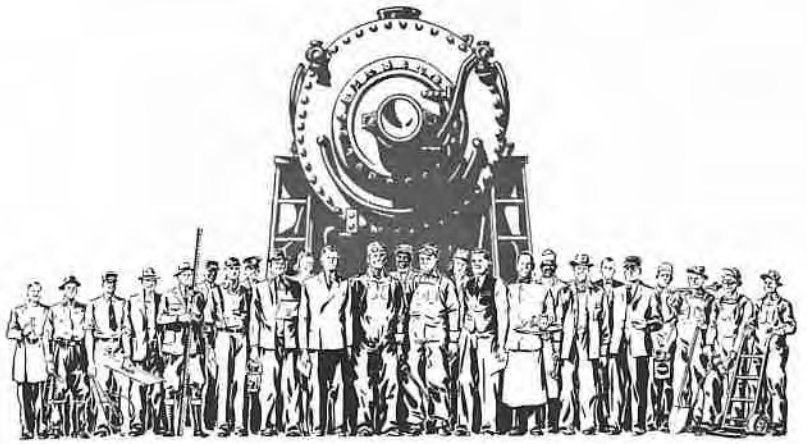
Employment opportunities for young women in the railroad industry are limited largely to those who can qualify as secretaries, stenographers, typists, accountants, ticket sellers, comptometer operators, telephone operators, telegraph operators, punch-card machine operators, teletypists, or clerks. However, there are exceptions, and in recent years many women have risen to official positions in specialized fields, such as commercial agents, attorneys, treasurers, and magazine editors. Altogether there are about 65,000 women in railway service.

Thousands of ambitious young men who, lacking college training, have taken minor positions in railway service, have found time to continue their school work in night classes or by correspondence, thus preparing themselves to qualify for promotion to positions requiring special training, such as law, engineering, or accounting. Thousands of other young men have completed their college work before entering these specialized branches of railroading.

Nowadays, too, an increasing number of railroads conduct training courses of various kinds, whereby their employees can become more efficient and better qualified for advancement. Many railroads have also arranged for the instruction of their employees through correspondence courses at reduced rates.

Those who advance to the higher positions in the railway organization owe their success to diligent effort and close application to duty. There is no royal road to success in the railway field. Nearly all must begin at the bottom. Some advance slowly, some rapidly, depending upon their ability, qualifications and enthusiasm for their work.

But whatever the degree of success one may attain, railroading represents one of the great fields of honorable and important public service in America, a service to which hundreds of thousands of men and women are devoting their lives because they like it above any other kind of work.



Partial List of Railway Occupations

There are hundreds of railway occupations, a few of which are listed below. The occupations named embrace more than four-fifths of all railway employees:

Accountant
Advertising agent
Agricultural agent
Apprentice
Architect
Assistant engineer
Attorney
Auditor
Baggage agent
Baggageman
Blacksmith
Block operator
Boilermaker
Bookkeeper
Brakeman
Bricklayer
Bridge engineer
Bridge tender
Bridgeman
Building engineer
Buyer
Call boy
Car accountant
Car checker
Car distributor
Car repairer
Carpenter
Cashier
Chainman
Checker
Chef
Chemist
Chief clerk
Chief dispatcher
Chief engineer
Civil engineer
Claim adjuster
Claim agent
Clerk
Coal handler
Commercial agent
Commissary clerk
Comptroller
Conductor
Cook
Coppersmith
Craneman
Crossing watchman
Dispatcher
Division engineer
Draftsman
Drawbridge operator
Editor, Employee Magazine
Electrical engineer
Electrical worker
Electrician
Executive officer
Expressman
Flagman
Foreman
Freight agent
Freight handler
Gang foreman
Gateman
General freight agent
General manager
General passenger agent
Hoisting engineer
Hostess
Hostler
Industrial agent
Inspector
Instrumentman
Investigator
Ironworker
Janitor
Laborer
Land agent
Leverman
Lineman
Locomotive engineer
Locomotive fireman
Machine operator
Machinist
Mail handler
Mason
Master mechanic
Mechanical engineer
Messenger
Molder
Motorman
Nurse-stewardess
Office boy
Oiler
Painter
Passenger agent
Pattern maker
Paymaster
Plasterer
Plumber
Policeman
Porter
President
Public relations representative
Pumper
Purchasing agent
Rate clerk
Riveter
Roadmaster
Rodman
Rules examiner
Safety inspector
Sandman
Secretary
Sectionman
Sheet metal worker
Shop apprentice
Shop foreman
Signal maintainer
Signalman
Station agent
Station attendant
Stationmaster
Stationary engineer
Stationary fireman
Stationer
Statistician
Stenographer
Steward
Stewardess
Storekeeper
Superintendent
Supervisor
Surgeon
Switchboard operator
Switchman
Switchtender
Tax agent
Telegrapher
Telephoner
Teletype operator
Ticket agent
Ticket seller
Timekeeper
Tinner
Towerman
Track apprentice
Track foreman
Track repairman
Track walker
Traffic agent
Train announcer
Train auditor
Train director
Trainmaster
Train maid
Trainman
Transitman
Traveling engineer
Treasurer
Trucker
Typist
Upholsterer
Vice president
Waiter
Watchman
Water tender
Welder
Yard clerk
Yard foreman
Yardmaster



