



**OFFICE *of* INSPECTOR GENERAL**  
NATIONAL RAILROAD PASSENGER CORPORATION

## **TRAIN OPERATIONS:**

**Rightsizing Workforce and Using It More Flexibly Could  
Reduce Costs at Preventative Maintenance Facilities**

**OIG-A-2019-012 | September 03, 2019**

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## Memorandum

**To:** Scot L. Naparstek  
Executive Vice President / Chief Operations Officer

**From:** Jim Morrison   
Assistant Inspector General, Audits

**Date:** September 03, 2019

**Subject:** *Train Operations: Rightsizing Workforce and Using It More Flexibly Could Reduce Costs at Preventative Maintenance Facilities (OIG-A-2019-012)*

In fiscal year (FY) 2018, Amtrak's (the company) Mechanical department spent approximately \$371 million to operate its preventative maintenance facilities, including more than \$265 million (71 percent) on labor.<sup>1</sup> In two prior reports,<sup>2</sup> we identified ways the department could reduce these costs by addressing inefficiencies in its staffing practices. This report focuses on the extent to which the department efficiently staffs its 12 preventative maintenance facilities. This body of work will help to inform the department's efforts to prepare for maintaining the company's next generation of equipment it is procuring, including Acela trainsets, diesel locomotives, and passenger cars. During our audit work, we also identified a safety issue at these facilities that we incorporated into our review.

To assess efficiency in staffing, we conducted a series of site visits to preventative maintenance facilities and took a number of other steps. We also developed a model to estimate the workload at two of these facilities and calculated the workforce they needed to meet this workload. To assess the safety risk, we analyzed the company's maintenance work data and discussed the risk with a senior official in the System Safety department. For more details, see Appendix A.

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<sup>1</sup> This amount includes salaries, straight time wages, overtime wages, and benefits.

<sup>2</sup> *Train Operations: Opportunities to Reduce the Cost of Rebuilding and Manufacturing Components at Maintenance Facilities* (OIG-A-2018-006), April 16, 2018; *Train Operations: Opportunities to Reduce the Cost of Servicing and Inspecting Trainsets* (OIG-A-2019-002), November 7, 2018. The cost reduction recommendations made in these reports support the company's efforts to reduce its operating losses and the Chief Mechanical Officer's efforts to reduce spending in the department.

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**SUMMARY OF RESULTS**

The company has taken positive steps to manage the Mechanical department's workforce and reduce costs, such as outsourcing some work and reducing headcount at its back shops. Nevertheless, it has not systematically managed its workforce at its preventative maintenance facilities, and therefore it incurs unnecessary costs. This occurs for two reasons:

- **No systematic workforce analysis:** The Mechanical department does not have a process to systematically analyze the workload at each of its 12 preventative maintenance facilities and ensure it has the most efficient staffing for this workload. For example, we analyzed the workload at two smaller facilities and estimated that the department could save as much as \$2.1 million—about 10 percent of annual labor costs at these locations—by better aligning staffing to the workload. Department managers validated our approach and agreed that the department could achieve workforce savings across the remaining facilities.
- **Limited staffing flexibility:** The department has limited flexibility to cross-train its union workforce. Under the company's current labor agreements, employees working in one craft—such as machinists, electricians, or carmen—generally cannot fill staffing shortfalls in another craft, even if they are trained and qualified to do so. This limitation creates inefficiencies that lead to additional costs.

Better staffing analyses and more flexibility would also help the company adjust its preventative maintenance workforce as it buys new locomotives and passenger cars. The company anticipates that the newer fleet will require less maintenance—and therefore fewer staff—than the aging fleet it is replacing.

Our audit also identified a potential safety issue for Mechanical department employees. We identified preventative maintenance employees working 16 hours or more in a day around heavy equipment, sometimes for multiple consecutive days, at all 12 preventative maintenance facilities. We found that the Mechanical department, unlike the Engineering department, has not analyzed injury and work schedule data to assess whether this poses a safety risk and requires any mitigating actions, such as limits on work hours.

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To more efficiently staff and improve safety at its preventative maintenance facilities, we recommend that the Executive Vice President / Chief Operations Officer ensure the Mechanical department, in conjunction with other relevant departments:

- implement a process to analyze the workforce at each preventative maintenance facility to ensure it aligns with the workload
- identify opportunities to increase staffing flexibility
- analyze injury and work schedule data and assess whether to take additional risk-mitigation steps

In commenting on a draft of this report, the Executive Vice President / Chief Operations Officer agreed with our recommendations and highlighted efforts the company has initiated or plans to take—including working with internal partners, such as the Finance department—to develop an accurate modeling program to forecast workforce needs. Additionally, management, in coordination with the Labor Relations department, will work with the unions to increase labor flexibility, while recognizing that any additional flexibility must be negotiated within the framework of the unions' collective bargaining agreements. Management also concurred with our recommendation to address the fatigue-related safety risks we identified and is assessing safety incident data to identify risks. These actions, if fully implemented, will address the intent of the recommendations.

**BACKGROUND**

Preventative maintenance includes work performed at regular intervals on the company's rolling stock equipment, such as locomotives and passenger cars, to comply with Federal Railroad Administration (FRA) regulations, equipment manufacturers' guidelines, and company policy. Employees at preventative maintenance facilities also perform minor repairs as well as service and inspection activities for inbound and outbound trains.

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The Mechanical department has 12 preventative maintenance facilities, which vary in size and scope of operations. In FY 2018, the department staffed these facilities with 2,600 workers (see Figure 1).<sup>3</sup>

**Figure 1. Mechanical Department's 12 Preventative Maintenance Facilities**



Source: Amtrak Office of Inspector General (OIG) analysis of Amtrak data

## **NO SYSTEMATIC ANALYSIS AND LIMITED STAFFING FLEXIBILITY CAN LEAD TO EXCESS STAFF**

We identified two key factors that can lead to excess staff at the Mechanical department's preventative maintenance facilities.

### **No Systematic Workforce Analysis**

The Mechanical department does not have a process to periodically and systematically analyze the workload at each preventative maintenance facility and ensure that staffing aligns to that workload. Instead of analyzing the workload, the Mechanical

<sup>3</sup> We excluded high-speed rail and reimbursable commuter operations from our review because they have different maintenance requirements or are funded by a reimbursable contract with a state partner. Some maintenance for these services, however, does occur at the preventative maintenance facilities.

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department—working with Finance and other departments—primarily bases staffing at these facilities on historical levels, contrary to best practices for workforce planning:

- The Mechanical and Finance department officials who develop facility budgets told us they use current staffing levels as the starting point to determine each facility's headcount for the following year.
- Senior officials in both the Mechanical and Finance departments then agree on the number of employees needed based on company-level budget targets, but not on each facility's workload. This is consistent with our findings in two recent reports that identified inefficient staffing practices at the company's back shops and its outlying service and inspection sites.<sup>4</sup>

To demonstrate the value of a systematic analysis, we developed a model to estimate the workload for two preventative maintenance facilities—New Orleans, Louisiana, and Hialeah, Florida<sup>5</sup>—and found that staffing did not align with the workloads at either facility. Specifically, we analyzed factors such as the volume of work performed at each facility, planned task times for each type of work, and average daily hours an employee would be available to work on equipment, and then compared the results to the actual number of employees on hand at each facility. As a result, we estimated that the company could be paying as much as \$2.1 million in excess labor costs—close to 10 percent of annual labor costs at these two facilities.

The Mechanical department has recognized similar benefits from assessing staffing compared to workload for some of its other activities. For example, in April 2019, in response to a recommendation in our prior report,<sup>6</sup> department officials told us they implemented a process to analyze staffing in a section of the company's three back shops. Based on this analysis, the department determined that staffing did not align

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<sup>4</sup> For example, in our November 2018 report on the Mechanical department's service and inspection facilities (OIG-A-2019-002), we found that staffing levels at those facilities were not based on workload, but more on a historical preference to have a full complement of staff on hand to respond to any unforeseen mechanical difficulty.

<sup>5</sup> We chose these two facilities because the workload at these smaller facilities was limited enough to allow us to analyze their operations. Additionally, we had visited both and were familiar with the operations. We also discussed a framework for a larger facility (Chicago, Illinois) with senior officials, who agreed that this type of model would also be workable and useful for that location. For more information about how we selected facilities for site visits, see Appendix A.

<sup>6</sup> *Train Operations: Opportunities to Reduce the Cost of Rebuilding and Manufacturing Components at Maintenance Facilities* (OIG-A-2018-006), April 16, 2018.

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with the workload, and it reduced the headcount by 51 employees across the three back shops and outsourced some of its activities. More recently, individual managers at three preventative maintenance facilities have attempted to improve staffing efficiency. These efforts, however, were limited to their facilities and did not include a full analysis of workloads or consider whether their staffing levels were appropriately aligned to their workload.

The Chief Mechanical Officer stated that the company has not performed a systematic workload analysis across all its preventative maintenance facilities in part because some components of the workload remain largely stable from year to year, such as the number of pieces of equipment that require maintenance. Based on our analysis and results at the two facilities, however, the Chief Mechanical Officer acknowledged that without conducting a similar analysis across all facilities, the department cannot be assured that it has the most efficient staffing for its workload. In addition, he stated that although the Mechanical department reduced the headcount at its preventative maintenance facilities through attrition by 5 percent from FY 2014 through FY 2018 (from 2,728 to 2,600), some locations most likely still have excess staff that a workload analysis could help identify.

Furthermore, other senior officials in the Mechanical and Finance departments agreed with the methodology and framework of our model and stated that they are considering how to apply our model to the other 10 facilities to help ensure that their staffing levels align to their workloads. The officials did recognize, however, that current work rules in place under existing labor agreements can affect how the department allocates and uses staff at the preventative maintenance facilities, and we discuss some of these rules in the following section of this report. While our model incorporated some of these work rules, such as addressing absenteeism and leaves of absence, the model was not intended to account for all rules and how the department implements them at each unique facility. Accordingly, the officials stated that our model offers a good baseline to begin assessing workload versus workforce needs that the department could enhance to factor in these work rules as applicable.

**Limited Staffing Flexibility**

According to facility managers and senior Mechanical department officials, some of the company's preventative maintenance facilities also have excess staff because the company's current labor agreements include work rules that limit the Mechanical department's flexible use of its staff. Specifically, these agreements include "scope of

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work” provisions that limit employees in particular crafts—such as machinists, electricians, or carmen—from doing anything more than “incidental” work in another craft, regardless of whether they are trained and qualified to do so.<sup>7</sup> For example, an electrician may have permission to remove a cabinet to access and perform work on an electrical component because the work is incidental to his or her primary electrical work. The electrician may not, however, be permitted to spend the majority of his or her shift disassembling the interior of a train car to work on an electrical component because disassembly belongs to another craft. As a result of these provisions, Mechanical and Labor Relations officials told us the department retains more staff than it otherwise needs to ensure adequate coverage in each craft when employees are absent or on leave, contrary to best practices for workforce planning. Though they could not estimate an exact number, Mechanical department officials at all levels told us they believe that the costs of these additional staff could be significant.

To increase efficiency and reduce costs, several other railroads cross-train their employees to perform a variety of maintenance activities. Senior company officials agree that this type of flexibility would be useful and have worked with the unions, when possible, to achieve this result in a number of situations. For example, in 2017, the company entered into an agreement with six states to maintain their Siemens Charger locomotives. At the states’ request, the company negotiated addendums to its agreements with three labor unions to convert 51 electricians, machinists, and pipefitters into “work team specialists.” This allowed the company to train these staff to do all the maintenance on these locomotives regardless of craft. The company and the unions have also agreed to similar agreements for employees who maintain the company’s Acela trainsets.

Senior Mechanical department staff and facility managers agreed that teamwork agreements are the most efficient staffing model. They noted that with more interchangeable staff, the company would not need to keep as many excess staff on hand to provide coverage in each craft. Mechanical and Labor department officials told us converting employees subject to these scope of work provisions to cross-functional staff could take time and temporarily increase some costs because the company would need to train employees on their additional duties. The officials also noted that achieving such flexibilities through union negotiations presents challenges that are not

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<sup>7</sup> The labor agreement defines work as “incidental” when it involves removing and replacing or disconnecting and connecting parts and appliances such as wires, piping, covers, and shielding, and includes simple tasks that do not require special training or special tools.

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necessarily in the company's control. The officials said that it will be important for the department to consider the costs of attaining increased staffing flexibilities along with the longer-term cost savings they can achieve for the company.

The company's need to analyze its staffing levels and look for ways to increase flexibility will likely grow. For example, the company is buying new Charger locomotives<sup>8</sup> and passenger cars. The company expects this new equipment to require less maintenance—and therefore fewer staff—than the aging fleet they are replacing, which would exacerbate the overstaffing.

Our prior work has shown, however, that the company has not always fully planned for the maintenance impacts of equipment purchases. For example, in September 2016, we reported that the company did not anticipate that its new ACS-64 locomotives would require less maintenance and therefore fewer maintenance staff than the fleet they replaced.<sup>9</sup> Further, when the department realized it had excess locomotive maintenance staff, it did not reduce the headcount. Instead, it shifted some of these employees from direct maintenance activities to indirect labor activities, such as janitorial services. Because the department did not assess the impact of the reduced maintenance workload on staffing levels, it missed an opportunity to reduce labor costs. If the company does not assess needed staffing levels when it buys new equipment and identify opportunities to increase staffing flexibility, the company could again miss an opportunity to reduce labor costs.

**MECHANICAL EMPLOYEES WORKING EXTENDED HOURS COULD POSE SAFETY CONCERNS**

During our analysis, we identified a potential safety issue for Mechanical department employees. We identified preventative maintenance employees working 16 hours or more in a day, sometimes for multiple consecutive days, at all 12 preventative maintenance facilities. Job requirements for these employees involve working in and around heavy equipment, and studies show that working extended hours in such conditions poses an increased risk of fatigue-related accidents and injuries.

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<sup>8</sup> In December 2018, the company agreed to purchase 75 Siemens Charger locomotives like the ones the company already maintains for six states using teamwork agreements.

<sup>9</sup> *Acquisition and Procurement: Opportunities Exist to Improve Management of Technical Support Services Contracts* (OIG-A-2016-013), September 30, 2016.

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The Engineering department faced a similar situation with its staff working long hours and took steps to address the safety risks. In 2014, the System Safety department analyzed the potential impact of fatigue on the Engineering workforce and found a strong correlation between higher levels of fatigue and safety incidents. In response, in 2015, the Engineering department worked with the System Safety staff to develop a policy that restricts the number of hours per day its employees can work.<sup>10</sup>

Although the FRA already limits the work hours of rail employees involved in operating or directing the movement of passenger trains, these regulations do not apply to most employees in the Engineering and Mechanical departments.<sup>11</sup> The FRA is, however, considering expanding these restrictions, and recently asked the company and nine other passenger railroads to provide data about safety incidents among maintenance-of-way workers.<sup>12</sup> Based on this data, in March 2019, the FRA published its study, which identified fatigue as a risk for such safety incidents,<sup>13</sup> and at the time of our review, was considering proposing restrictions on work hours for maintenance-of-way employees.

The Mechanical department has safety practices in place to help protect its employees, including requiring them to wear protective equipment—such as hard hats and steel-toed boots. Both Mechanical and System Safety department officials agreed, however, that working long hours could increase the risk of fatigue-induced incidents. Yet, according to a senior official in the System Safety department, this department has not yet worked with the Mechanical department to analyze injury and work schedule data as it relates to fatigue, as it did for the Engineering department.

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<sup>10</sup> Amtrak Engineering department, “Working in Excess of 14 hours (Letter of Instruction 2015.3),” August 21, 2015. The company lost an arbitration decision related to this policy and is currently considering additional actions to mitigate this identified safety risk.

<sup>11</sup> FRA regulations establish the criteria for designating employees in certain safety-sensitive positions as “hours of service” employees, which limits the number of hours they can work. See 49 C.F.R. 228, Appendix A.

<sup>12</sup> The company’s maintenance-of-way workers fall under the Engineering department. While they are subject to the Engineering department’s current policy restricting the number of work hours per day, they are not subject to FRA’s hours of service restrictions.

<sup>13</sup> Department of Transportation/FRA, *Data Analysis for Maintenance-of-Way Worker Fatigue* (DOT/FRA/ORD-19/02), March 2019.

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**CONCLUSIONS**

The Mechanical department has taken positive steps to better manage its workforce and reduce costs, such as outsourcing some work and reducing headcount at its back shops. Nonetheless, the company does not ensure that its workforce is aligned with its workload at its preventative maintenance facilities and, as a result, may incur unnecessary costs. Better aligning its workforce to its workload at the two facilities we analyzed could result in as much as \$2.1 million in funds that the company could put to better use annually. Using a similar process to assess the size of its workforce in relation to its workload across all its preventative maintenance facilities, as well as the ability to use staff more flexibly, the department will likely have other opportunities to reduce labor costs. Additionally, analyzing injury and work schedule data could help the Mechanical department determine the appropriate policy to implement to mitigate the potential safety issues we identified.

**RECOMMENDATIONS**

To provide for more efficient staffing across the company's preventative maintenance facilities and reduce the risk of fatigue-related safety incidents, we recommend that the Executive Vice President / Chief Operations Officer ensure that the Mechanical department takes the following actions:

1. Work with the Finance department, and others, as appropriate, to implement a process to periodically and systematically analyze the workforce at each preventative maintenance facility to ensure that it aligns with the associated workload.
2. Continue to work with the Labor Relations department to identify opportunities to increase staffing flexibility among agreement employees, especially as the company develops maintenance strategies for the new equipment it is purchasing.
3. Work with the System Safety department to analyze injury and work schedule data and assess whether the results show the need to take steps to reduce risks. This could include implementing a policy limiting the hours that Mechanical department employees can work in a day.

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**MANAGEMENT COMMENTS AND OIG ANALYSIS**

In commenting on a draft of this report, the company's Executive Vice President / Chief Operations Officer agreed with our recommendations, stated the company will take actions to implement them, and included timely target dates for completion.

The company's planned actions are summarized below:

- **Recommendation 1:** Management agreed with our recommendation to implement a process to analyze the workforce at each preventative maintenance facility to ensure that it aligns with the associated workload. Management stated it will work with internal company partners, such as the Finance and Operations Research departments, to develop a process to forecast the necessary headcount. The company plans to use this baseline during their annual planning and budgeting process and will have the ability to adjust it, as needed, throughout the fiscal year. The Mechanical department will also work with others within the company to ensure that the appropriate business and work rules are incorporated into the process for each preventative maintenance site. The target completion date for these actions is July 2020.
- **Recommendation 2:** Management agreed with our recommendation to work with the company's Labor Relations department to identify opportunities to increase staffing flexibility. The Mechanical department, with the support of the Labor Relations department, will continue discussions with union representatives regarding the implementation of team agreements to provide additional labor flexibility within the context of the terms of the unions' labor agreements. The target completion date for these actions is March 2021.
- **Recommendation 3:** Management agreed to work with the company's System Safety department to assess whether it needs to take additional steps to reduce safety risks. Management stated that it is assessing safety incident data to identify the extent to which fatigue may have been a factor in these incidents. The target completion date for this action is October 2019.

For management's complete response, see Appendix B.

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## **APPENDIX A**

### **Objective, Scope, and Methodology**

Our objective for this audit was to assess the extent to which the Mechanical department efficiently staffs its preventative maintenance facilities. This is our third audit assessing the operating efficiency of the Mechanical department.

Our work focused on activities conducted at the company's 12 preventative maintenance facilities. We performed our work from November 2018 through August 2019, conducting site visits to New Orleans, Louisiana; Hialeah, Florida; Sanford, Florida; Chicago, Illinois; Los Angeles, California; and Washington, D.C. We selected these sites to ensure a mix of facility size, volume of work, type of work, and geographic location. These six sites represent 64 percent of FY 2018 expenditures for preventative maintenance facilities.

To understand the range of activities at the company's preventative maintenance facilities, we reviewed Mechanical department documents, interviewed company officials, and visited the six locations listed above. We also interviewed a company Labor Relations official to better understand the actions the company could take based on its collective bargaining agreements.

To compare workload requirements with staffing levels, we used work order data from the company's Work Management System (WMS) and headcount data provided by local budget and planning managers.

To estimate the FY 2018 workload in New Orleans and Hialeah, we took the following actions:

- calculated the number of daily inspections and quarterly preventative maintenance inspections that the company performed in FY 2018
- obtained information regarding the type of equipment in each trainset that the company inspected and cleaned daily
- obtained the planned preventative maintenance hours for each type of equipment
- estimated the additional hours that would be worked to correct any necessary repairs identified during daily or quarterly inspections

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- multiplied the inspection quantities by the sum of the inspection and repair hours

To determine the average agreement employee staffing levels in FY 2018, we obtained the number of full-time equivalent employees from local budget and planning managers. We then obtained an estimate, from a Finance department official, of the average number of hours an agreement employee would be available to work on a piece of equipment in a typical year. To estimate the average number of productive hours an agreement employee would be available to work on a piece of equipment on any given day, we used 5.5 hours to 6.5 hours per day, based on discussions with company officials. We then compared the estimated FY 2018 workloads to the estimated annual number of productive hours that agreement staff on hand would be available to work on equipment.

To estimate the range of excess costs incurred, we multiplied the range of potential excess staff by the FY 2018 average wages and benefits of Mechanical department agreement employees. The excess costs were only calculated for the two facilities we modeled and cannot be projected out to the other 10 preventative maintenance facilities. In the report, we identified the high-end of that range.

To determine the extent to which Mechanical department staff at preventative maintenance facilities worked 16 or more hours in a day, we totaled the number of hours worked each day by every agreement employee at each preventative maintenance facility.

We conducted this performance audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## **Internal Controls**

We reviewed management oversight of the preventative maintenance work process. We interviewed key Mechanical department officials at various preventative maintenance facilities, as well as Finance department personnel. Additionally, we reviewed financial reports prepared for the preventative maintenance facilities.

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We discussed these controls with various managers to understand how they apply to the preventative maintenance workload. We did not conduct an independent review of the company's overall system of controls.

## **Computer-Processed Data**

The company uses the SAP software solution, an integrated, enterprise reporting package that interfaces with other company systems, such as WMS. The company uses WMS to initiate, track, and finalize work orders on various company assets.

Company budget and planning managers generated standard reports for FY 2018 from the SAP Business Planning and Consolidation module. We used these reports to determine the total spending and headcount at the preventative maintenance facilities. We validated the total spending in a sample of cost centers through a Finance department official who recreated reports to verify totals.

Information technology staff from the Mechanical department generated FY 2018 reports of work order data from WMS. We validated these data by extracting work order information from WMS for the same period and ensuring that the total number of hours matched, or that the difference was immaterial for our purpose.

Based on these analyses, we determined that the data were reliable for the purposes of our audit.

## **Prior Reports**

The following reports were relevant to our work:

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- *Train Operations: Opportunities to Reduce the Cost of Servicing and Inspecting Trainsets* (OIG-A-2019-002), November 7, 2018
- *Train Operations: Opportunities to Reduce the Cost of Rebuilding and Manufacturing Components at Maintenance Facilities* (OIG-A-2018-006), April 16, 2018
- *Acquisition and Procurement: Opportunities Exist to Improve Management of Technical Support Services Contracts* (OIG-A-2016-013), September 30, 2016

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## APPENDIX B

### Management Comments

NATIONAL RAILROAD PASSENGER CORPORATION

# Memo



Date	August 27, 2019	From	Scot Naparstek, EVP COO 
To	Eileen Larence, Acting Assistant Inspector General, Audits	Departments	Operations
		cc	Eleanor Acheson, EVP General Counsel Stephen Gardner, Sr. EVP Carol Hanna, VP Controller Roger Harris, EVP Kenneth Hylander, EVP Charlie King, CMO Dennis Newman, EVP Mark Richards, Sr Director Amtrak Risk & Controls DJ Stadtler, EVP Tracie Winbigler, EVP CFO Christian Zacariassen, EVP CIO
Subject	Management Response to <i>Asset Management: Train Operations: Rightsizing Workforce and Using It More Flexibly Could Reduce Costs at Preventative Maintenance Facilities</i> (Draft Audit Report for Project No. 004-2019)		

This memorandum provides Amtrak's response to the draft audit report entitled, "*Train Operations: Rightsizing Workforce and Using It More Flexibly Could Reduce Costs at Preventative Maintenance Facilities*". Management appreciates the opportunity to respond to the OIG recommendations. As indicated in our responses, we agree with each of the OIG recommendations and will initiate actions to address each in a timely manner.

**Recommendations:**

To provide for more efficient staffing across the company's preventative maintenance facilities and reduce the risk of fatigue-related safety incidents, we recommend that the Executive Vice President / Chief Operating Officer ensure that the Mechanical department takes the following actions:

1. Work with the Finance department, and others, as appropriate, to implement a process to periodically and systematically analyze the workforce at each preventative maintenance facility to ensure that it aligns with the associated workload.

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Management Response/Action Plan: Management agrees with this recommendation. Working with internal partners such as Finance and Operations Research, the use of an accurate modeling program to forecast headcount will provide a static baseline during the Annual Operating Plan (AOP) development with the ability to adjust throughout the fiscal year. However, prior experiences within Operations has demonstrated that having inadequate work rules built into forecasting or optimization models has proven to produce less efficient and more costly operations. Therefore, Mechanical will partner with the appropriate internal functions to adjust the model for accurate business and work rules per PM site, as well as ensure that there is adequate skills available per shift at each facility. Manning at PM facilities, as well as Service Centers, must have the flexibility to efficiently adjust for workload fluctuations between shifts and have the ability to ramp-up or ramp-down quickly in cases of backload of PMs or supply chain interruptions. Amtrak Mechanical will continue to work with Amtrak Commercial, Marketing and Transportation departments to right-size Mechanical forces to match equipment delivery with customer demands. Additional service requirements and existing requests for service changes require Mechanical to continually adjust staffing or work hour demands based on outages and equipment changes to be efficient and responsive to customer service needs.

Responsible Amtrak Official(s): Charles King, CMO

Target Completion Date: Jul 2020, In conjunction with 2021 AOP development.

2. Continue to work with the Labor Relations department to identify opportunities to increase staffing flexibility among agreement employees, especially as the company develops new maintenance strategies for the new equipment the company is purchasing.

Management Response/Action Plan: Management agrees with the recommendation. The Mechanical Department, with the close coordination and support of Amtrak Labor Relations, has provided the Mechanical Union representatives with a concept of a System-wide or location specific Team Agreement which could potentially allow the staffing flexibility as recommended in this finding. These negotiations are currently ongoing. However, it must also be understood that the work rules that govern the degrees of staffing flexibility amongst the agreement workforce are dictated by the terms of current collective bargaining agreements. The labor organizations place high value on these work rules and changes to these work rules have proven to be difficult to obtain in Mechanical as well as other represented parts of the organization. Management intends to continue to work with the labor organizations for productive changes to work rules with mutually agreeable adjustments to terms of labor agreements. The cost of obtaining work rule changes will need to be thoroughly vetted by Mechanical, Labor Relations, Finance and the ELT in order to ensure that there is a valid and supported business case.

Amtrak currently has a Team Agreement in place with the Mechanical High-Speed Rail (HSR) Acela work force. The agreement employees receive additional monthly bonus compensation against a set of measures for Acela reliability and performance. Negotiations with Unions have already begun to extend/renew this agreement for the Acela replacement equipment.

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Responsible Amtrak Official(s): Charles King, CMO and Aaron Buck, Sr. Director LR

Target Completion Date: March 2021

3. Work with the System Safety department to analyze injury and work schedule data and assess whether the results show the need to take steps to reduce risks. This could include implementing a policy limiting the hours that Mechanical department employees can work in a day.

Management Response/Action Plan: Management agrees with this recommendation and will coordinate with the Safety Department to provide a summary of all reportable safety incidents for the past two years showing rest time prior the incident and hours into the shift at the time of the incident. Hours that employees can work per day are stipulated in the Collective Bargaining Agreements and covered extensively in the Department of Transportation Hours of Service regulations.

Additionally, as was cited by the OIG the policy limiting hours of work per day in Amtrak Engineering referenced in the OIG report was grieved by the bargaining units and a third-party arbitrator upheld the grievance and struck down the policy. This arbitration loss creates a constraint that will make it difficult to enact a similar policy within Mechanical.

Responsible Amtrak Official(s): Charles King, CMO and John DeFrancesco, Dir Mech Safety

Target Completion Date: 01 Oct 2019

*Amtrak Office of Inspector General*  
**Train Operations: Rightsizing Workforce and Using It More Flexibly Could Reduce Costs  
at Preventative Maintenance Facilities**  
OIG-A-2019-012, September 03, 2019

## **APPENDIX C**

### **Abbreviations**

FRA	Federal Railroad Administration
FY	fiscal year
OIG	Amtrak Office of Inspector General
the company	Amtrak
WMS	Work Management System

*Amtrak Office of Inspector General*  
**Train Operations: Rightsizing Workforce and Using It More Flexibly Could Reduce Costs  
at Preventative Maintenance Facilities**  
OIG-A-2019-012, September 03, 2019

## **APPENDIX D**

### **OIG Team Members**

Eileen Larence, Deputy Assistant Inspector General, Audits

J.J. Marzullo, Senior Director, Audits

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Felix Kungu, Audit Manager

Cindi Anderson, Senior Auditor, Lead

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# OIG MISSION AND CONTACT INFORMATION

## Mission

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The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management, and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

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or

800-468-5469

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