

The Washington Metrorail Safety Commission

Safety Audit

of the Washington Metropolitan
Area Transit Authority

Audit of Fitness for Duty Programs



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Prepared under the authority of the Washington Metrorail Safety Commission

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Executive Summary



The Washington Metrorail Safety Commission (WMSC) performed this safety audit of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail's fitness for duty practices based on in-depth interviews and reviews of documents and data conducted in 2021. The scope of this audit included Metrorail's fitness for duty responsibilities and programs such as fatigue and alertness management, medical and physical requirements, and medication, drug and alcohol programs, along with the associated policy and procedure development, implementation and compliance, management structure, planning and governance, and associated training as each relates to rules, procedures, regulations and best practices.

Each aspect of an effective fitness for duty program helps manage and mitigate the risks posed by impairment from fatigue, lack of alertness, medical or physical issues, licit and illicit drugs, and alcohol. Under a Safety Management System (SMS) approach as outlined in WMATA's Public Transportation Agency Safety Plan (PTASP), these issues need to be addressed consistently, comprehensively and cooperatively from the highest levels of management through frontline workers.

The WMSC identified several positive practices and a number of areas that require improvement for Metrorail to establish an effective fitness for duty program. As a result, the WMSC is issuing 11 findings requiring Metrorail to develop corrective action plans (CAPs) and 4 recommendations that Metrorail is required to address.

These findings identify safety deficiencies in Metrorail's fitness for duty programs, including issues identified in previous audits and reviews that Metrorail has not yet addressed, which pose safety risks to customers and others who rely on or work in the Metrorail system.

For example, Metrorail cannot reasonably ensure that its employees and contractors who are conducting safety sensitive duties are free from impairment that could cause incapacitation. Such impairment has contributed to accidents in other rail systems.

Metrorail is not conducting physical examinations required by its policies for safety sensitive employees, and Metrorail does not track when these physicals are due to occur. This creates a risk that safety sensitive employees are operating trains with undiagnosed or untreated conditions such as diabetes, hypertension and obstructive sleep apnea that, when not properly managed, increase the risk of loss of consciousness. These conditions are treatable, but Metrorail is not following its written procedures and policies that require regular monitoring to significantly mitigate this risk through the physical exam process and WMATA's fatigue management policy.

Metrorail has not implemented many aspects of its fatigue management policy, and ignores the policy's minimum daily release (rest) period requirements. In any event, Metrorail does not have adequate access to, documentation of, or compilation of data to assess compliance with its hours of service requirements. Metrorail also generally

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These conditions are treatable, but Metrorail is not following its written procedures and policies.



Numerous follow-up and random drug and alcohol tests are not completed with no documentation available about why.

does not collect and maintain other fitness for duty data in a manner (such as a searchable electronic database) that allows for identification, tracking and trending of issues as required to fully implement an SMS approach that would effectively allocate resources to address safety hazards and mitigate risks.

Related to drug and alcohol testing, although it is good that WMATA conducts testing under its own authority beyond the minimum requirements of the U.S. Department of Transportation (DOT), WMATA does not have written criteria for this post-incident testing conducted under its own authority and does not consistently implement post-event testing.

Numerous follow-up and random drug and alcohol tests are not completed with no documentation available about why the tests were not completed, and supervisors are not receiving reasonable suspicion training required by Metrorail policy and federal regulations. WMATA does not have procedures to confirm that employees are consistently removed from service for positive drug and alcohol test results in a timely manner as required by federal regulations.

Metrorail is also not providing medical oversight of contractors and does not include any requirement in contracts that the contractors meet WMATA medical, fatigue or hours of service standards.

The WMSC conducted this audit at this time as a risk-based oversight response to safety issues identified during inspections, investigations and other work that pose risks to employees, customers and others. The audit timing provided WMATA with essentially the greatest possible spacing between the WMSC's required audit (entrance conference February 17, 2021) and the separate triennial FTA audit of Metrorail's drug and alcohol program that specifically examines Metrorail compliance with federal regulations (conducted November 18-22, 2019, report issued November 22, 2019).

WMATA initially withheld some information required for this audit from the WMSC, made misleading statements regarding the WMSC's work and the timing of the 2019 FTA drug and alcohol audit, and initially did not provide information related to Metro Transit Police Department (MTPD) officers. WMATA's own documentation states MTPD plays a crucial role in customer and employee safety, emergency preparedness and response. Federal regulations, the WMSC Compact and WMSC Program Standard require WMATA to provide this testing information to the WMSC. The WMSC continues to endeavor to work collaboratively with WMATA to ensure that Metrorail understands and complies with safety requirements.

WMATA is required to propose CAPs for each finding and respond to each recommendation no later than 30 days after the issuance of this report.



Background and Scope

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Metrorail workers, local first responders on the right of way, and customers on board trains, in stations and in other Metrorail facilities all rely on Metrorail personnel being physically and mentally fit for duty to operate and maintain the Metrorail system safely. Proper fitness for duty programs provide an important layer of safety that identifies and monitors treatment of medical conditions and provides protections against other hazards such as fatigue that would otherwise pose a risk of incapacitating, for example, a train operator at the controls of a moving train.

The scope of this audit includes Metrorail's fitness for duty responsibilities and programs including fatigue and alertness management, medical and physical requirements, and medication, drug and alcohol programs. This audit addresses policy and procedure development, implementation and compliance, management structure, planning and governance, and associated training as each relates to rules, procedures, regulations and best practices.

Among other areas, the audit focuses on System Safety Program Plan (SSPP) elements:

- implementation activities and responsibilities
- safety data collection and analysis
- accident investigation
- emergency management program
- rules compliance
- training and certification for employees and contractors
- compliance with local, state and federal requirements
- drug and alcohol program

For the most recent information, the audit also focuses on aspects of WMATA's first Public Transit Agency Safety Plan (PTASP), titled the WMATA Transit Agency Safety Plan, which replaced the SSPP on December 31, 2020. The elements of the PTASP covered in this audit include:

- organizational SMS accountabilities and responsibilities
- functional area common SMS responsibilities
- functional area specific SMS responsibilities
- SMS documentation

Proper fitness for duty programs provide an important layer of safety.



- systematic, integrated data monitoring and recording of safety performance
- real-time assessment with timely information as to safety management and performance
- internal reviews
- departmental controls
- compliance and sufficiency monitoring
- document assurance activities
- event reporting/investigations
- competencies and training
- employee safety training
- safety rules and procedures training
- training recordkeeping and compliance with training requirements
- contractor safety
- safety communications
- drug and alcohol compliance

Due to the timing of the PTASP's approval and the required phased approach for effective implementation, aspects of the PTASP had not yet been implemented at the time of this audit.

In the context of the WMSC's oversight of WMATA, there are several types of positions or employees referred to as "safety sensitive." The WMSC Compact definition of a safety sensitive position is: "any position held by a WMATA employee or contractor designated in the Public Transportation Agency Safety Plan for the WMATA Rail System and approved by the Commission as directly or indirectly affecting the safety of the passengers or employees of the WMATA Rail System."

Separately, for the specific purpose of determining the employees who are covered by the aspects of WMATA's drug and alcohol testing program that are required by the U.S. Department of Transportation (DOT), the Federal Transit Administration (FTA) defines safety-sensitive positions as revenue vehicle operators (including when not in revenue service), anyone who maintains (including repairs, overhauls and rebuilds) revenue vehicles, operators of non-revenue vehicles when required to be operated by a holder of a Commercial Driver's License, anyone controlling dispatch or movement of a revenue service vehicle, and employees carrying a firearm for security purposes. Each of these personnel perform in safety roles at WMATA. Metrorail tests other

The scope of this audit includes Metrorail's fitness for duty responsibilities and programs including fatigue and alertness management, medical and physical requirements, and medication, drug and alcohol programs.



The WMSC conducted this audit at this time as a risk-based oversight response to specific safety issues and concerns.

employees (or tests covered employees in circumstances not required by DOT) based on WMATA's own authority, which is not limited by this FTA definition, and includes those who maintain (including repairs, overhauls and rebuilds) all equipment used to transport people (escalators/elevators) and those who monitor and perform station services, such as assisting passengers in the use of station services and equipment (station managers). Both WMATA's DOT and non-DOT policies and associated responsibilities are incorporated into its PTASP.

The WMSC's audits are required by 49 CFR 674.31 and the WMSC Compact to cover all aspects of the PTASP to examine whether Metrorail is following its own written commitments, rules and procedures and whether those procedures are effective and in alignment with requirements and best practices.

Separately, the FTA performs targeted reviews of transit systems' compliance with DOT drug and alcohol requirements on a triennial basis. As described below, the most recent FTA Drug and Alcohol Compliance Audit of WMATA was conducted and issued in November 2019.

As further described below, the WMSC conducted this audit at this time both as a risk-based oversight response to specific safety issues and concerns identified during inspections, investigations and other safety oversight work, and to provide WMATA with essentially the greatest possible spacing between the WMSC's required audits and the separate FTA audit. This avoids undue burden and ensures that WMATA, FTA and the WMSC achieve the greatest possible safety benefit from the WMSC's independent work.

Open Corrective Action Plans

Two notable open Corrective Action Plans in this area are C0008-A and C0008-B related to WMATA's hours of service and fatigue policy.

The WMSC issued a finding that required Metrorail to develop these corrective action plans in fall 2019 to supersede FTA-TSR-18-002-a, b and c. As further described below, FTA-TSR-18-002 was issued on January 19, 2018 based on safety findings identified by a Tri-State Oversight Committee (TOC) audit. This finding related to WMATA not consistently implementing its hours of service requirements, not conducting training on those requirements, and not conducting audits of its compliance with hours of service requirements.

Under the WMSC finding being addressed through C0008-A and C0008-B, Metrorail is required to develop and implement an effective hours of service policy as part of an overall fatigue management program. Metrorail's original projected completion date for these CAPs was October 2020 and September 2022, respectively; however, the revised fatigue management policy that became effective in August 2020 and



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submitted to the WMSC does not meet the requirements to close C0008-A. The WMSC communicated this to WMATA through the regular CAP review process, including in January 2021. The update to WMATA's fatigue and hours of service policy that became effective in August 2020 provided lesser safety benefits than the original policy, such as no longer including the requirement for one day off per week that had been part of the prior policy. The WMSC has previously communicated this continued deficiency to WMATA, and has reiterated the requirement to establish an effective hours of service policy, including in discussions with WMATA's Chief Safety Officer.

The August 2020 policy, which superseded prior policies, includes broad applicability for overall fatigue programs, with specific job classifications covered by hours of service guidelines. These classifications include 75 safety sensitive job titles such as rail controllers, train operators and maintenance personnel.

The hours of service guidelines include a 10 hour daily off duty period for covered jobs (same as 2015 policy) in an effort to provide an opportunity for sufficient rest, but the new policy states that these limits are for scheduled shifts rather than for time actually worked. The policy also includes a 12-hour workday guideline for ROCC controllers and interlocking operators, and a 14-hour guideline for other jobs except in emergencies such as a blizzard, during which a 16-hour day may be allowed and a release period can be shortened to 8 hours if a hotel is provided. The revised policy does not include any special provisions for night work or any alterations of restrictions based on seat time. The new policy no longer covers safety-sensitive emergency responders such as the Metro Transit Police Department (MTPD).

Prior to the changes instituted due to the public health emergency that instituted alternate day schedules for several months, train operators and other employees were frequently working six or seven days in a row.

This policy does not meet the requirements for an effective safety-based fatigue policy.

As previously discussed with WMATA, the WMSC provides the following additional guidance regarding the minimum requirements for an effective policy:

- The policy must include effective measures to mitigate the risk of sleep debt, such as ensuring that employees do not work more than a set number of consecutive days. Working an excessive number of consecutive days increases mental fatigue and increases the risk that employees will need to complete other non-work tasks such as food shopping and handling family issues during time that they need to be sleeping. The American Public Transportation Association (APTA) Rail Transit Standard for Train Operator Hours of Service, for example, states that train operators should not work more than six consecutive days.

- The policy must include caps on tour of duty duration. Metrorail's prior policy stated that a work tour would not exceed 14 hours for train operators and controllers. However, the August 2020 policy states that employees should not be scheduled for more than 14 hours for train operators and 12 hours for controllers. If employees are scheduled to the maximum limits of what Metrorail has determined is safe, they will be forced to go beyond that safety-based limit in cases including when their relief does not arrive precisely on time.

Metrorail's new policy does eliminate the extensive exceptions from the prior policy, which appears to be a positive step, but also allows for waivers to maintain on time performance and for suspension in an emergency.

As background, Metrorail created its first basic fatigue management policy in 2013 setting a general goal of utilizing data to determine fatigue management options. This followed a 2011 joint WMATA-TOC study described in more detail below.

In 2014, WMATA instituted an hours of service policy that provided more specific limits for work and rest hours, including a statement that employees generally could not work more than six consecutive days unless exceptions were met, such as other qualified personnel being unavailable.

In December 2016, arbitrators found that policy was not enforceable as it related to members of Amalgamated Transit Union Local 689, Metrorail's largest union, because WMATA had implemented the policy unilaterally without negotiations with the employees, and the policy was in conflict with the collective bargaining agreement (CBA) even if WMATA paid employees who would be skipped over for assignments due to the limitation on consecutive days worked. The arbitration board and union acknowledged the safety concerns related to fatigue, but found that such a policy required WMATA negotiations with the employees. The United States District Court for the Eastern District of Virginia confirmed this arbitration decision in a ruling issued January 4, 2018.

WMATA and Local 689 entered into a new collective bargaining agreement in 2019 that was ratified in early 2020, but that agreement does not include any adjustments related to fatigue management. Metrorail also has other collective bargaining agreements with unions representing other groups of workers.

Collaboration among employees and management at all levels to achieve safety goals is precisely what is required under a safety management system (SMS) approach committed to in WMATA's PTASP to make the most effective and lasting safety improvements. This approach requires commitment and good-faith effort from all involved to making operations as safe as practicable.

Collaboration among employees and management at all levels to achieve safety goals is precisely what is required under a safety management system (SMS) approach.





Fully implementing an effective fatigue management policy at Metrorail will require improved communication, collaboration and information sharing.

The signed August 2020 policy is in effect in the interim until improvements to the policy are completed. However, Metrorail has not implemented many aspects of this August 2020 policy that has now been in effect for approximately one year. This creates safety risks. Even many aspects that mirror Metrorail's 2015 fatigue management policy that do not directly relate to the portions of the policy an arbitration panel required Metrorail to negotiate with employees have not yet been implemented and have only rough timelines for implementation. Although the inclusion of these aspects of the policy may be positive, they can only have that positive effect if they are implemented.

For example, according to interviews for this audit:

- The FRMS Steering Committee referenced in Section 5.01 has not convened
- Section 5.04 specifies that individual departments must establish processes for self-reporting fatigue, but no departments have this policy. This is an important safety step that provides a critical opportunity to avoid safety events, and it is included in the APTA Standard
- There is no collection of fatigue data for analysis and action as described by Section 5.05
- WMATA has stopped conducting the fatigue management training outlined in Section 5.06 and provided to the WMSC
- Overall reports on hours of service compliance and trends listed in Section 5.07 are not available

Employees do not have information related to self-reporting fatigue, or specific steps they can or should use to report fatigue, and WMATA is not providing employees with meaningful training on sleep disorder awareness, identification, and warning signs.

Metrorail has not recently conducted fatigue awareness training specified in its policy, does not yet have the refresher training specified in its policy, and is not yet completing routine fatigue reports.

Concerns in these areas were also identified by the TOC dating back to 2016.

Fully implementing an effective fatigue management policy at Metrorail will require improved communication, collaboration and information sharing between OHAW, SAFE and other relevant departments as committed to in the PTASP.

This work must be completed as part of C-0008-A and C-0008-B. Because these CAPs remain open, the WMSC is not issuing a new finding in this area in this audit.

The WMSC also identified issues related to fatigue in its Rail Operations Control Center (ROCC) Audit issued in September 2020. Finding 7 of that audit identified that WMATA does not always follow or clearly define its fatigue risk management procedures for the ROCC, including those limiting the length of controller shifts. This issue related both to proper staffing and proper scheduling. The ROCC Audit identified multiple instances in which controllers worked seven or more consecutive days, and other instances in which controllers worked as many as 29 consecutive days in 2020.

History

On November 3, 2004, a nonrevenue Metrorail train rolled back more than 2,000 feet on the Red Line between Cleveland Park and Woodley Park stations before colliding with a stationary in-service train that was stopped at the Woodley Park Station platform.

The NTSB determined the probable cause of the collision was likely the reduced alertness of an operator who did not apply the brakes, with the lack of rollback protection on the train in manual mode identified as a contributing factor. The NTSB recommended that transit agencies ensure that the time off between daily tours of duty allows train operators to obtain at least 8 hours of uninterrupted sleep, and found that this train operator's alertness was likely reduced due to inadequate sleep.

"The available time train operators have for sleep is limited by various necessities, including commuting, as well as the usual time it takes to prepare for bed, fall asleep, shower, and prepare for work the next day. Other typical needs, such as eating meals or tending to family or personal matters, further impinge on their available rest (sleep) time. In actuality, in order to have an opportunity to sleep for 8 hours, a train operator's off-duty time must be appreciably greater than 8 hours. Further, the Safety Board notes that WMATA's practice of allowing train operators to start a shift after having only 8 hours off duty conflicts with its own scientifically-based fatigue-educational material, which indicates that, on average, adults physiologically require 8 hours of sleep for optimal waking performance and alertness," the NTSB wrote.

The NTSB concluded that without sufficient time off between prolonged tours of duty, train operators do not have the opportunity to receive adequate sleep to be fully alert and to operate safely.

The investigation identified that this did not mean overtime is unsafe, but did mean that the operator's overtime had to be scheduled in such a way that work time is not exceedingly long and that time off is adequate for obtaining sufficient sleep before the start of the next shift.

The NTSB recommended that transit agencies ensure that the time off between daily tours of duty allows train operators to obtain at least 8 hours of uninterrupted sleep.



The NTSB recommended that all U.S. rail transit agencies ensure medical history and physical examination forms elicit specific information about any previous diagnosis of obstructive sleep apnea or other sleep disorders and about specific risk factors for such disorders.

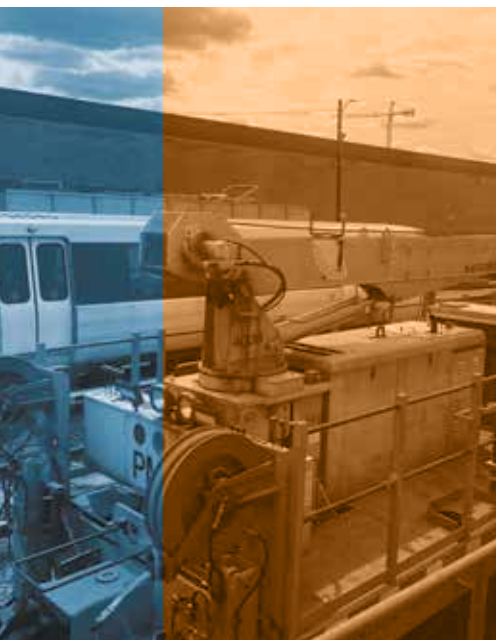
The NTSB investigation into a 2008 collision of two Boston-area Massachusetts Bay Transportation Authority (MBTA) trains determined that an operator likely experienced a micro-sleep episode, which is a brief instance of involuntary sleep that can range from a fraction of a second to more than 30 seconds. The NTSB recommended that all U.S. rail transit agencies ensure medical history and physical examination forms elicit specific information about any previous diagnosis of obstructive sleep apnea or other sleep disorders and about specific risk factors for such disorders. The NTSB also recommended that all U.S. rail transit agencies establish a program to identify operators who are at high risk for sleep disorders and require that such operators be appropriately evaluated and treated.

The NTSB investigation into a December 1, 2013 derailment of a Metro-North Railroad train near Spuyten Duyvil in New York also highlighted the importance of sleep disorders screening and treatment. In that event, the investigation identified that an engineer with undiagnosed severe obstructive sleep apnea who was also adjusting to a new wake/sleep cycle fell asleep, resulting in a train entering a curve at excess speed and derailling. As a result of the derailment, 4 people were killed and at least 61 were injured.

A separate NTSB investigation into a March 24, 2014 Chicago Transit Authority (CTA) collision at O'Hare Station in which a train ran through a bumping post and up a station escalator beyond the end of the track determined probable cause was the failure of the train operator to stop the train at the appropriate signal due to falling asleep as a result of fatigue, which was the result of the challenges of rotating shiftwork, circadian factors, and acute sleep loss resulting from her ineffective off-duty time management. In addition, the NTSB concluded that CTA failed to effectively manage the operator's work schedule to mitigate the risk of fatigue.

Following that event, the Federal Transit Administration's Transit Advisory Committee for Safety (TRACS) published a report with recommendations on fatigue management programs. The report included specific recommendations on management of fatigue, training for personnel, hours of service limits, and training and certification of work schedules. This report, issued July 30, 2015, included recommendations for hours of service requirements, fatigue awareness training for all safety-sensitive personnel, requirements for medical evaluations of sleep disorder risks for each safety-sensitive employee and monitoring of treatment plan compliance, and that agencies collect and track fatigue performance measures to evaluate the success of their fatigue risk management system. The report also recommended additional research related to evaluation of these programs, how the programs can be used in transit settings, and additional data collection and analysis.

As of 2020, the FTA was funding that research analysis of industry best practices and standards and existing scientifically based hours-of-service regulations and





standards established by other U.S. DOT modal administrations, and expected to assess their application in the transit industry. This research includes an analysis of circadian rhythms and human rest and sleep cycles. WMSC review of inward-facing cab-camera footage as part of station overrun investigations and other oversight work has identified several instances where operators have fallen asleep while operating Metrorail trains.

The Transportation Safety Board (TSB) of Canada has identified shift work and its management, specifically the disruption of the normal sleep cycle, insufficient rest periods between shifts, excessively long shifts, and cumulative effects of working extended hours repeatedly as a recurring contributing factor to freight railroad accidents from 1995 to 2015 (Rudin-Brown, C., Harris S., Rosberg, A. "How shift scheduling practices contribute to fatigue amongst freight rail operating employees: Findings from Canadian accident investigations" Accident Analysis and Prevention Vol. 126 (2019) pp 64-69). The TSB investigations also identified ineffective fatigue countermeasures related to scheduling (time on duty, shift predictability, shift variability controlled for required adjustment to new shift's circadian rhythms), fatigue management plans, and training or guidance to employees. These investigations and related research confirm the importance of considering cumulative fatigue, including from sleep debt created by inadequate rest over consecutive sleep-wake periods.

There are other areas of fitness for duty where transportation investigations, recommendations and standards have identified a need for continued vigilance.

A June 2020 study sponsored by the Federal Motor Carrier Safety Administration (FMCSA) of Commercial Driver Safety Risk Factors (Hickman, et. al.) conducted by the Virginia Tech Transportation Institute found that, in general, drivers "receiving treatment for a medical condition were no riskier in terms of safety outcomes than drivers without the medical condition and, in several cases, were less risky than those who did not have the medical condition. When there was an increase in risk in one or more of the safety outcomes, it was usually associated with the driver not receiving treatment or the driver not being clinically diagnosed with the medical condition."

For example, the NTSB investigation into Maryland Transit Administration (MTA) Light Rail collisions at the Baltimore-Washington International (BWI, now BWI-Marshall) Airport Station in 2000 identified the probable cause of one of the two crashes as an operator's severe fatigue resulting from undiagnosed obstructive sleep apnea, and the probable cause of the other crash as the operator's impairment by illicit and/or prescription drugs. Those crashes led to NTSB safety recommendations to U.S. rail transit systems to provide sleep disorder training and to require employees in safety-sensitive positions to inform their supervisors when they are using prescription or over-the-counter medications.



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Other recent NTSB investigations related to employee fitness for duty include a 2019 freight train collision in Carey, Ohio that involved alcohol impairment of an engineer who had not been tested for drugs in the 10 years prior to the collision. The NTSB noted that, “Ten years is an unusually long time period for an employee to not be tested in a random drug-testing system.”

Based on nationwide trends showing increasing positive drug test results at FTA-regulated properties, the Federal Transit Administration in 2019 raised the minimum rate for random drug testing from conducting tests equivalent to 25 percent of covered employees to conducting tests equivalent to at least 50 percent of covered employees each year.

Prior Reviews and Audits

In 2011, the Tri-State Oversight Committee (TOC) and WMATA conducted a Fatigue Risk Management Study. This study was initiated following a discussion involving the TOC, WMATA Board and WMATA staff to examine WMATA’s current policies and practices for safety-sensitive employee hours of service and fatigue management. At the time, APTA had promulgated an hours of service standard for train operators that would begin in 2014. The NTSB had previously issued recommendations related to hours of service and fatigue in the transit industry, and WMATA had experienced the 2004 Woodley Park Station train rollback in which fatigue was a significant factor. The study identified that there were no limits addressing cumulative fatigue from working many consecutive days without a day off, that overtime practices were informal and varied by department, that many departments were not aware of supposedly mandatory fatigue awareness training, and that there were no substantive fatigue management or review policies in place. Metrorail also was not requiring physicals for most safety-sensitive employees, and had just begun requiring those physicals for train operators. Challenges identified included the way overtime was assigned, numerous vacancies, training requirements, severe weather, track work, and specialized employee skills.

Following that TOC-WMATA study, WMATA approved a general fatigue management program that became effective in June 2014, around the time the APTA standard for train operators took effect.

In 2015, WMATA hired a Fatigue Risk Safety Manager who was responsible for implementing the program and leading two governing committees: the Fatigue Risk Management System (FRMS) Operational Committee and the FRMS Executive Committee.

In October 2015, the Federal Transit Administration assumed temporary direct safety oversight of the Metrorail system until the WMSC was created and



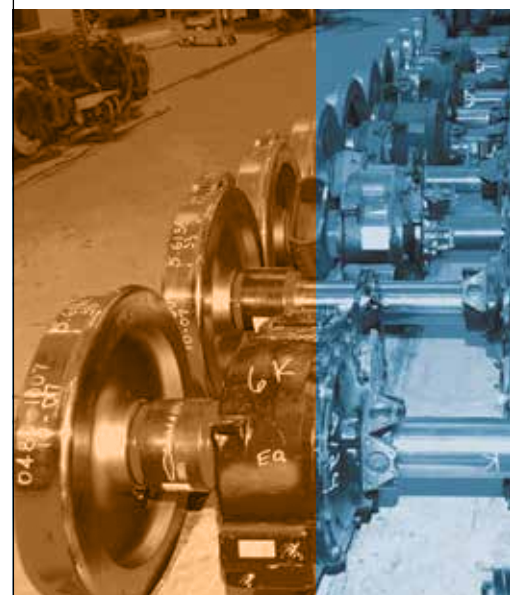
certified. During this period, the FTA specified that the TOC would continue to perform triennial audits while the FTA performed other oversight functions.

In 2016, the TOC conducted a fitness for duty audit that included interviews and document reviews related to medical evaluations, fatigue management, and hours of service for departments including the Metro Transit Police Department (MTPD), Rail Transportation (RTRA), Communications (COMM), Automatic Train Control (ATC) and Car Maintenance (CMNT). At that time, the Medical Services and Compliance Branch was primarily responsible for medical and drug and alcohol programs. That department has since been renamed and realigned to become OHAW.

Among other things, the 2016 TOC Audit found:

- WMATA's Drug and Alcohol policy approval and distribution process had not been documented
- Supervisors were not given clear instructions or written procedures on sending contractors for post-accident testing
- WMATA was working on adding language to contracts to monitor and audit contractor drug and alcohol testing programs
- There were some issues with substance of post-incident testing forms
- Post-event testing decision forms only existed for DOT criteria, not for WMATA's non-DOT criteria
- WMATA's non-DOT criteria was extremely broad with no guidance for supervisors to determine whether testing was appropriate
- WMATA did not conduct full sleep disorder evaluations as part of all medical examinations; Sometimes there was no follow-up on identified problems such as potential sleep apnea
- Additional fatigue training was needed, particularly for supervisors, schedulers and upper-level managers to improve compliance with hours restrictions
- TOC identified concerns about the accuracy of hours of service documentation and the ability to determine based on available data whether hours of service rules were being followed
- Fatigue policies specified in APTA standards had not been implemented
- The medical group was not always notified about newly promoted supervisors
- There was a systemic misinterpretation of the hours of service policy and a lack of specific training. Supervisors, schedulers and upper-level

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in June 2014.**





managers did not know the policy, and did not understand the protections against working seven consecutive days

- WMATA did not have authority-wide FRMS training on how the hours of service policy affects each job
- Multiple departments had not conducted manpower assessments – including MTPD, Plant Maintenance (PLNT) and Systems Maintenance (SMNT) – to determine whether staffing was sufficient to meet hours of service safety requirements
- The Safety Department (SAFE) was not conducting annual hours of service audits as specified in the policy
- WMATA had no policy addressing self-reported fatigue, or what supervisors and depot clerks are supposed to do in response to self reports. This was (and remains) a specific aspect in the APTA Standard, but WMATA's policy only stated that WMATA would consider such a policy in the future
- FRMS committee meeting membership and frequency was not documented

On January 19, 2018, the FTA issued Special Directive 18-2 requiring WMATA to further address specific safety findings identified by the TOC during the TOC's scheduled triennial review process (which included the TOC's 2016 Fitness for Duty Audit) through the FTA's corrective action plan process. Special Directive 18-2 included four required corrective actions related to fitness for duty programs. FTA-TSR-18-001, that WMATA did not consistently implement post-accident drug and alcohol testing, required WMATA to ensure that employees are sent for post-accident drug and alcohol testing in compliance with FTA Drug and Alcohol Testing Program requirements. FTA-TSR-18-002-a, b and c required WMATA to ensure that personnel covered by its hours of service requirements and their supervisors are trained on, and adhere to, these requirements; to ensure that all departments consistently implement hours of service requirements among their covered employees; and to conduct annual hours of service audits on all safety sensitive departments.

Later in 2018, the TOC conducted its next triennial audit of Metrorail's fitness for duty programs as scheduled. Among other things, this audit found:

- WMATA did not track the expiration of employee safety-sensitive medical cards to ensure that cards are renewed prior to expiration through the required physical examination. RTRA did not track expiration dates for safety-sensitive medical cards, and OHAW, recently realigned at the time from medical services, could not provide RTRA with the records of all RTRA employees who had been issued a card in 2016 and 2017

- WMATA was not documenting the reasons reasonable suspicion testing was not promptly administered
- WMATA did not have written criteria for post-incident testing that defined when a post-incident test may occur
- WMATA was not documenting why tests were not completed on the assigned day
- WMATA did not provide all supervisors with reasonable suspicion training in a timely manner as specified in its drug and alcohol policy

In 2019, the Federal Transit Administration conducted its most recent Drug and Alcohol Compliance Audit of WMATA's drug and alcohol testing programs. The audit of WMATA's compliance with federal regulations in this portion of Metrorail's fitness for duty program was conducted from November 18, 2019 to November 22, 2019, and concluded with a final report issued on November 22, 2019.

The FTA audit found that WMATA's drug and alcohol policy did not specify the safety sensitive job functions covered as required by FTA rules, did not provide specific detail related to the allowable timing of follow-up and reasonable-suspicion alcohol testing, did not fully detail the requirements for post-accident testing, did not ask job applicants about prior refusals of DOT pre-employment tests, and included other issues that required correction such as the use of "pre-assignment" DOT testing which is not a DOT testing category. The audit also identified improper use of pre-employment tests, "serious issues with decision-making, documentation, or both" for reasonable suspicion testing, that employees were not directed to immediately proceed to the collection site for random tests, and that WMATA was improperly excusing employees for random testing with no documentation if they were not available on the selected date or happened to be off or sick.

The FTA identified a repeat finding from its 2015 Drug and Alcohol Compliance Audit related to Substance Abuse Professional (SAP) documentation, found gaps in SAP training and knowledge of specific details of DOT requirements, and found that OHAW had no way to identify when employees in follow-up or other programs were on extended leave. An SAP is a person who evaluates employees who have tested positive, and who then recommends individualized education, treatment and follow-up testing.

The FTA audit also identified deficiencies in WMATA contractor program testing and administration as well as a lack of required training for at least some contractors.



QICO Review
(Feb. 2020 data)

800

employees exceeding
the allowable
workday duration.

2,350

exceeding shift
service.

1,613

employees exceeding
release period
limitations.

1,717

employees exceeding
consecutive days
worked restrictions.

A review of WMATA's Rail Station and Train Operations (RSTO) branch conducted in 2020 by WMATA's Quality Assurance, Internal Compliance & Oversight (QICO) that included interviews and kiosk assessments confirmed that this portion of the Office of Rail Transportation (RTRA) was still not conducting fitness for duty evaluations and had no substantive controls for fatigue.

That QICO review, based on the 2015 hours of service policy, identified in February 2020 alone more than 800 instances of employees exceeding the allowable workday duration, 2,350 instances of exceeding shift service, 1,613 instances of exceeding release period limitations and 1,717 instances of exceeding consecutive days worked restrictions.

The review also found that although OAP 201-05, updated in December 2013, provides for train operators to be deemed fit for duty before a clerk issues a run manifest for their shift, depot clerks, supervisors and superintendents were not aware of the OAP. Depot clerks are also not necessarily positioned in a way that would allow for a sufficient assessment of the operator's fitness for duty due to bulletins that may obstruct their view in hallways that may be dark.

QICO determined that RSTO has no way to count and assess these violations and had no documented way to examine what causes the violations or how to reduce the violations to improve safety. Safety investigation reports submitted by RSTO lacked information on sleep history and alertness.

At the time of the internal review, depot clerks were also not up to date on fitness for duty training such as reasonable suspicion and fatigue awareness.

A separate 2020 QICO review of a switch replacement program found a lack of contractor compliance with drug and alcohol requirements that had not been identified by the responsible departments.

In March 2021, WMATA's Office of Inspector General publicly published a summary of the outcome of an investigation into several WMATA employees who used or were in possession of duplicate identification badges from September 2018 through May 2019. The OIG investigation focused on the use of at least 19 duplicate badges recovered from a contractor and WMATA employees because they may have allowed employees to be paid and avoid penalty for arriving late and leaving early from work by having colleagues swipe them in and out of Metrorail's timekeeping system.

The WMSC identified potential safety issues related to this investigation because this practice of using photocopied badges so that others can swipe an employee in or out calls into question the validity of even the limited available data related to hours of service.





The OIG found that in addition to the 19 duplicate badges recovered from supervisory, line level and safety instruction personnel, “[e]vidence suggests this practice is widespread throughout WMATA.”

This provides an ongoing opportunity to, among other things, adjust hours worked to a different day to avoid documentation of hours of service violations.

The OIG’s summary stated that, as a result of the investigation, WMATA added specific language to an internal policy stating that identification badges cannot be shared or transferred.

Current Structure

In its PTASP, Metrorail has assigned the Office of Occupational Health and Wellness (OHAW) as the group primarily responsible for administering a Substance Abuse Testing Program in accordance with Title 49 CFR part 40, *Procedures for Transportation Workplace Drug and Alcohol Testing Programs* and Title 49 CFR part 655, *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*. WMATA Policy/Instruction No. 7.7.3/6 - Drug and Alcohol Policy and Testing Program establishes requirements and responsibilities for administering the required programs. OHAW is responsible for providing safety assurance for this program and monitoring the Drug and Alcohol Testing Program for WMATA’s safety-sensitive Contractors.

Multiple positions on the organization chart that was provided by OHAW for this audit were not yet filled or were not yet fully functioning in the roles that are intended under a reorganization plan.

Decisions related to drug and alcohol testing following an accident or other safety event are generally made by other departments, and OHAW only tests those employees who appear at the collection site. OHAW is not involved in the decision-making process and is not aware of any employees who are not sent for testing. OHAW does oversee and communicate selections for random testing to supervisors; however, as described below, this audit identified that many such random tests are not conducted, with no documented reason for the test being missed.

Initial employee physicals that are conducted for Metrorail are conducted by contracted medical professionals working for a firm called Concentra. WMATA policy provides for a second round of safety-sensitive physicals to be conducted by OHAW professionals functioning as examiners for WMATA. OHAW personnel do not function as primary care doctors.

Metrorail’s PTASP does not provide any documented alternatives to APTA standards related to fitness for duty programs, therefore, the WMSC considered those standards best practices for safety in reference to the areas examined in this audit.





APTA's standards include hours of service and other fitness for duty requirements, including a self-reporting process for fatigue-related impairment.

As described earlier in this report, employees and contractors across many WMATA departments act in safety sensitive positions ("any position held by a WMATA employee or contractor designated in the Public Transportation Agency Safety Plan for the WMATA Rail System and approved by the Commission as directly or indirectly affecting the safety of the passengers or employees of the WMATA Rail System"). These include train operators, rail controllers, maintenance personnel, supervisors, Metro Transit Police Department (MTPD) officers and others. For example, MTPD personnel respond to and manage safety events which is a function of safety and emergency management critical to the safety of passengers, firefighters and emergency medical services personnel, and Metrorail employees and contractors.

Aspects of Metrorail's fitness for duty programs have faced challenges since early 2020 due to the public health emergency, the May 2020 fire at the Jackson Graham Building (WMATA's downtown D.C. headquarters), and additional changes that have led, for example, to shifting the storage location of records and to the temporary relocation of WMATA's drug and alcohol testing facility. OHAW's workload increased substantially due to the COVID-19 public health emergency, without any changes to its other responsibilities.

Metrorail plans to move the testing location to WMATA's new headquarters building near L'Enfant Plaza Station when that building is ready for occupancy.

Audit Work

The WMSC communicated the schedule for this audit in the October 1, 2020 triennial audit schedule update provided to WMATA, which reflected changes – including advancing this audit – due to safety deficiencies and procedural noncompliance that the WMSC had identified through other oversight activities that posed safety risks to riders, workers and others.

This audit timing also provided for the largest reasonable spacing between this audit and the partially related FTA drug and alcohol programs audit that is also conducted every three years (last conducted November 18-22, 2019, report issued November 22, 2019).

Nonetheless, WMATA hindered the WMSC's efforts to proceed with this audit. WMATA also initially withheld some information required for this audit from the WMSC, made misleading statements regarding the WMSC's work and the timing of the 2019 FTA drug and alcohol audit, and initially did not provide information related to MTPD officers who play a crucial role in emergency preparedness and response. WMATA is required by the WMSC Compact, WMSC Program Standard



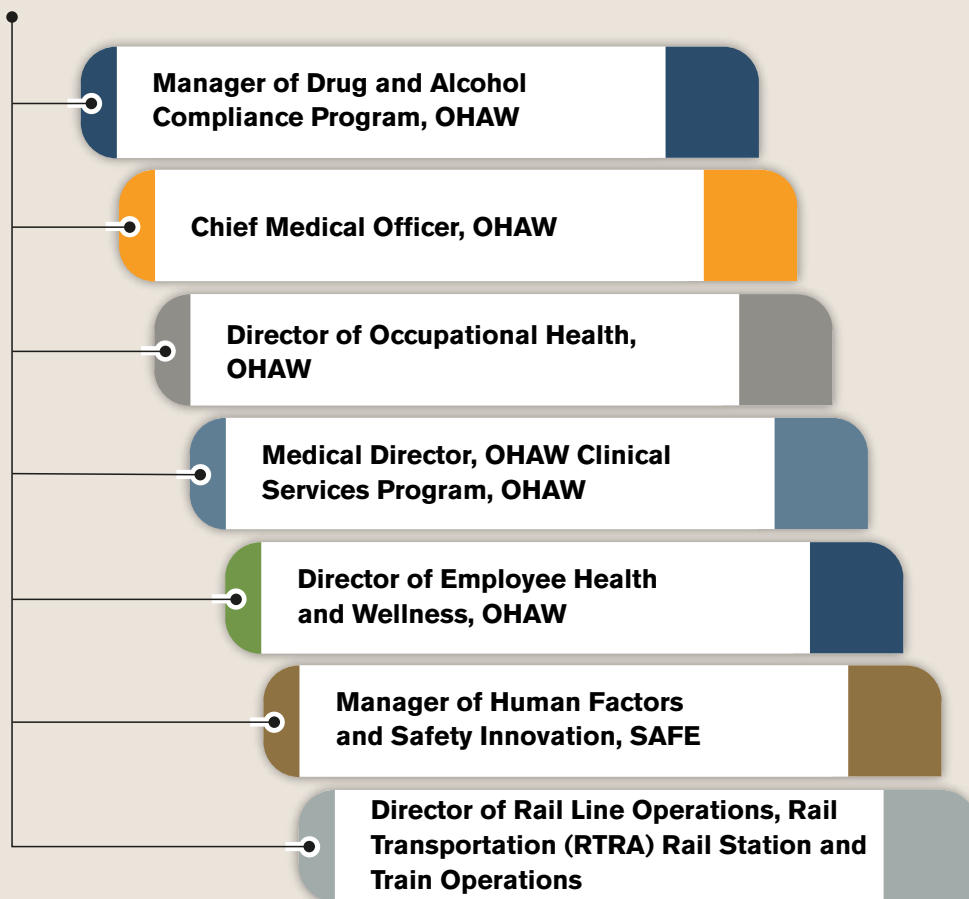
and federal regulation (49 CFR part 655) to provide this information regarding MTPD personnel to the WMSC. The WMSC issued a notice of non-compliance to the Chief Safety Officer, and WMATA then provided this documentation. The WMSC continues to endeavor to work collaboratively with WMATA to ensure that Metrorail meets safety requirements.

The WMSC transmitted the initial document request related to this audit to WMATA on December 14, 2020, received initial documents from WMATA in January 2021, conducted extensive interviews in February 2021 and April 2021, and received follow-up documents and conducted document reviews into May 2021.

An exit conference was held with Metrorail staff on April 9, 2021 to summarize the status of the audit to that point. WMATA confirmed that the remaining documents would be provided the following week. As noted above, those documents were only provided later, after multiple additional opportunities to provide them as required, when the WMSC issued a formal notice of non-compliance.

The WMSC later provided a draft of this report to WMATA for technical review and incorporated any technical corrections as appropriate.

Personnel Interviewed



Documents Reviewed

- Organizational charts for OHAW and SAFE
- OHAW job descriptions
- List of Track and Structures and RTRA supervisors
- List of supervisors of safety-sensitive personnel hired or promoted into that role (January 1 through May 2020)
- List of personnel who completed reasonable suspicion course (January 2018 through January 2021)
- List of MTPD safety-sensitive personnel hired or promoted (January through May 2020)
- List of supervisors of MTPD safety-sensitive personnel who have completed reasonable suspicion training (January through August 2020)
- List of safety sensitive personnel by job classification as of February 2021
- List of BAT collector certifications
- List of RM certifications and expirations
- Hours of service records (January through February 2021)
- Fatigue Management standdown (March 2020)
- OSHA 30 Hour Outreach training for General Industry
- Fatigue management factsheet (December 2019)
- Certified Professional Collector Training Course Curriculum
- Drug & Alcohol New Employee Orientation (Revised September 2019)
- Drug & Alcohol Awareness and Reasonable Suspicion Training for Supervisors (Revised December 2020)
- WMATA Medical Office Return to Duty Guidelines 2020
- What to Expect: DOT Examination (Pre-Employment & Re-certification)
- General Medical Instructions (Revised 7/19)
- Concentra Provider Guide (new hires and current employees)
- Phoenix 6.0 Instructor Equipment Checklist
- DOT Physical Form MCSA-5875 (Expiration Date 11/30/2021)
- Concentra Non-DOT Physical Form (Revised 11/10/2020)
- OHAW Return-to-Duty Evaluation Form (Revised 2/2021)
- Reasonable Suspicion Pre-Test Form (Revised April 28, 2020)
- Reasonable Suspicion Post-Test Form (Revised April 28, 2020)
- Policy/instruction 7.4.4/2 Absenteeism (Approved 1/3/2017)
- Policy/Instruction: 7.7.2/1 Substance Abuse and Employee Assistance Program and Appendix A (Approved 10/9/2020)
- Policy/Instruction: 7.7.3/6 Drug & Alcohol Policy and Testing Program (Approved 5/23/2018)
- Revised draft policy/instruction 7.7.3/6 Drug & Alcohol Testing Program Policy
- Policy/Instruction: 10.6 Fatigue Risk Management Policy (Superseded by 10.6/1)
- Policy/Instruction: 10.6/1 Fatigue Risk Management Policy (Approved 8/27/2020)



Documents Reviewed

- Policy/Instruction: 10.7/1 Hours of Service Limitations for Prevention of Fatigue and Appendix A (Rescinded 8/27/2020)
- 54600-01 WI-01, Rev 0, Return to Duty (August 12, 2020)
- 54600-01 SOP-01, Rev 0, OHAW Procedure (November 23, 2020)
- Instructions for Referral for Medical/EAP Evaluation Form
- Occupational Health and Wellness Drug and Alcohol Compliance Program Post accident/post incident determination referral form (Revised March 2020)
- Request/Consent for Drug and Alcohol Test History for Applicant for DOT/FTA Safety Sensitive Position Form (Revised April 2020)
- Work status notice form (Version 3.1)
- Breath alcohol test (BAT) form
- 2019 Management Information System (MIS) Data submitted to U.S. DOT
- FTA Drug and Alcohol Compliance Auditing Program Final Audit Report (November 2019)
- List of all testing scheduled and completed (January through December 2020)
- List of post-accident testing (January through December 2020)
- List of post-accident, reasonable suspicion, and follow-up tests conducted (January through June 2020)
- List of drug test panel specifications for U.S. DOT and WMATA authority
- Incident Fatigue Risk Analyses (1/15/2018, 2/10/2018, 6/4/2019, 6/25/2019, 8/22/2019, 10/7/2019, 1/21/2020, 7/7/2020, 10/20/2020)
- Testing records for all post-accident, reasonable suspicion, and follow-up tests (January through June 2020)
- Random testing records (September through October 2020)
- Testing records of MTPD personnel selected for random testing (September 2020)
- Testing records of MTPD personnel for all post-accident, reasonable suspicion, and follow-up tests (January through February 2020)
- Master List for random testing notifications (September 2020)
- Collective Bargaining Agreement (CBA), WMATA and Fraternal Order of Police/Metro Transit Police Labor Committee, Inc. (effective through September 30, 2024)
- CBA, WMATA and the Office and Professional Employees International Union Local No. 2, AFL-CIO (effective through June 30, 2021)
- Substance Abuse Policy and Employee Assistance Program, Local 2, OPEIU (January 1995)
- CBA, WMATA and Local 639 Teamsters, Law Enforcement Division (effective through September 30, 2021)
- CBA, WMATA and Local Union 689 of Amalgamated Transit Union AFL-CIO (effective through June 30, 2024)
- Substance Abuse Policy and Employee Assistance Program, Local 689, ATU and Local 922, IBT (1994)
- CBA, WMATA and Automotive Local 922 (November 30, 2020)



What the **WMSC** Found



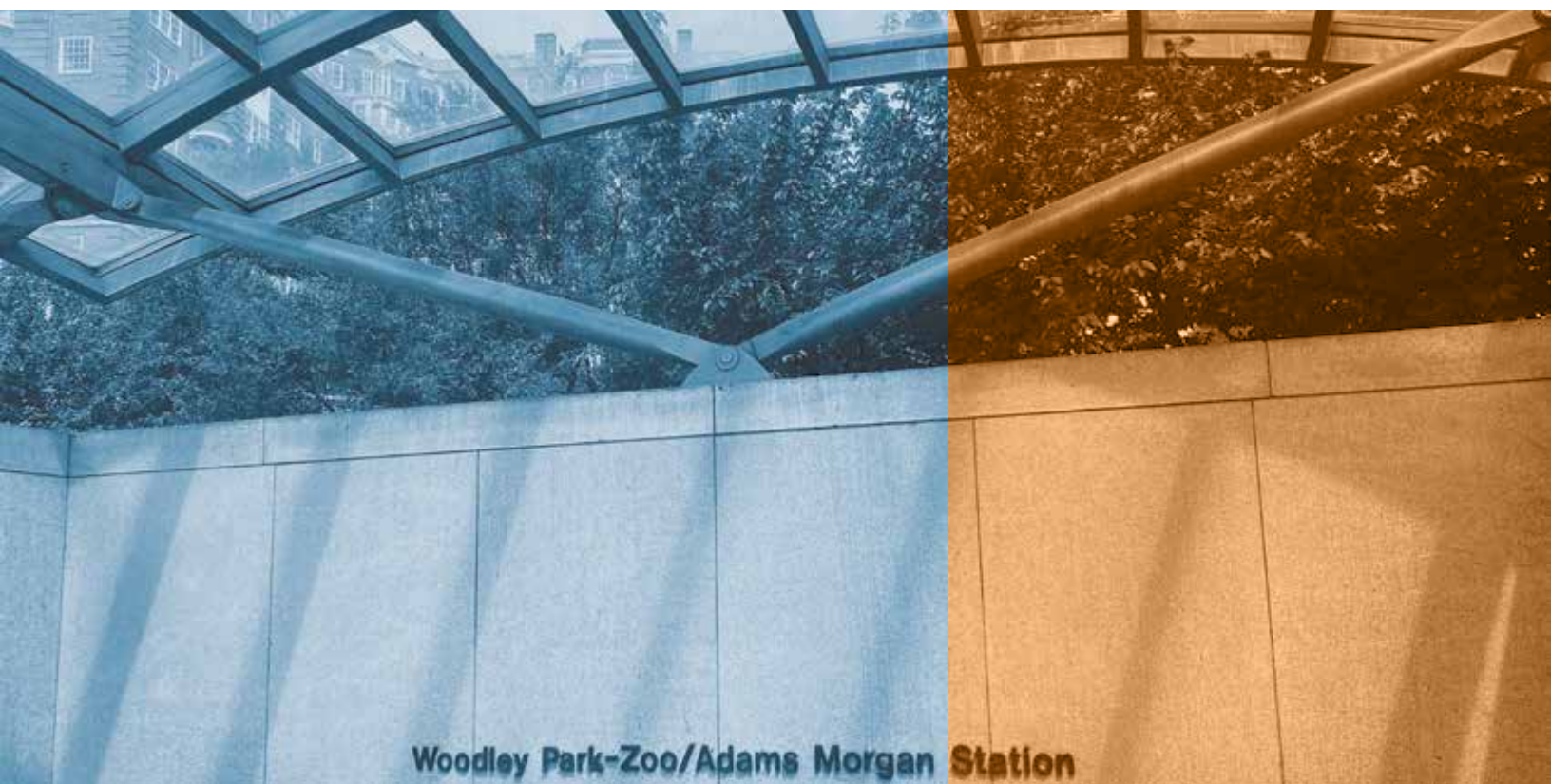
What the **WMSC** Found

Positive Practices

The WMSC identified a number of positive practices related to Metrorail's fitness for duty programs while conducting this audit including:

- A new procedure for OHAW provides the framework for office operations
- OHAW reviews contractor Drug and Alcohol programs
- Metrorail is gradually improving testing of people who could have contributed to events like Interlocking Operators and Rail Controllers since WMSC has continued to raise this issue
- Overall random drug and alcohol testing is distributed throughout the day and throughout the week
- Most departments appear to be reasonably randomized in random testing notification times to employees. However, Car Maintenance appears to provide the notification at the start or end of a shift
- Some initial steps have been taken to develop and gather basic wellness information that could help address preventable fitness for duty challenges. However, this is not complete since this does not account for similar data available in a separate plan for many represented workers

Metrorail is gradually improving testing of people who could have contributed to events since the WMSC has continued to raise this issue.



OHAW acknowledged that there are many Metrorail employees who go without the required physicals for many years, and that many Metrorail employees are not aware of this requirement.



Findings and Minimum Corrective Actions

Safety sensitive physicals are not conducted as required by Metrorail policy, and Metrorail does not document or track when these physicals are due for all existing employees.

WMATA policies require physical examinations at minimum every two years, and OHAW staff sometimes shorten the renewal period if medical issues necessitate more frequent monitoring. WMATA has not clearly communicated these safety sensitive physical requirements to Metrorail employees, does not monitor whether those physicals are completed, and does not take steps to ensure the physicals are completed.

OHAW does not track who needs a physical and does not have a schedule for who is supposed to return for a physical. Interviews determined that departments are responsible for tracking their own employees' medical card expiration dates. However, the WMSC requested medical card tracking for five departments and was informed that none of those departments track this information.

OHAW acknowledged that there are many Metrorail employees who go without the required physicals for many years, and that many Metrorail employees are not aware of this requirement.

This creates a risk that a safety sensitive employee is operating a train or conducting other critical functions with undiagnosed or untreated conditions such as diabetes, hypertension and sleep apnea that, when not properly managed, increase the risk of loss of consciousness. These conditions are treatable, but Metrorail is not following its written procedures and policies that require regular monitoring, in part through the physical exam process, that would help to significantly mitigate this risk.

The cards provided to those employees who do get physicals do not provide information regarding how to renew the cards when they expire. It appears based on interviews that only employees who take it upon themselves to get these physicals end up renewing their cards.

For example, in response to the draft of this audit report, Metrorail stated that "members within the MTPD do not currently take physicals." However, OHAW Clinical Services SOP 1 section 6.16.3.1 requires physicals on a designated annual or bi-annual basis "for all safety sensitive positions". This includes MTPD personnel.

The TOC identified in 2018 that WMATA did not track the expiration of safety-sensitive medical cards and did not have complete records of who had been issued cards.



2

Departments do not keep accessible records that would be required to determine whether they are complying with hours of service requirements.



Minimum Corrective Action: Metrorail must communicate, track and conduct physicals as required by its policies. After physicals are conducted, Metrorail must document and track electronically when the next physical is due, and must ensure that only personnel who meet these requirements are working in positions covered by the physical requirements.

Metrorail ignores the minimum daily release period (rest period) requirements in its Fatigue Risk Management Policy.

Departments such as RTRA do not attempt to follow Metrorail's in-effect Fatigue Risk Management Policy (Policy/Instruction 10.6/1), and other departments do not keep accessible records that would be required to determine whether they are complying with hours of service requirements.

The policy requires 10 hours off duty between shifts as stated in the APTA Train Operator hours of service standard; however, RTRA management said that they only schedule based on eight hours between shifts. This was further documented in the WMSC's review of train operator hours of service records for this audit, which also identified instances in which even the eight-hour rest period was not met. When asked about the apparent violations, RTRA referred to the eight hours as the minimum specified in WMATA's collective bargaining agreement with Local 689. However, WMATA controls the schedules that are available for employees. If WMATA believes the CBA is limiting in this area, it should negotiate changes.

As noted above, a QICO review of WMATA's Rail Station and Train Operations (RSTO) branch that included interviews and kiosk assessments in 2020 confirmed that the department had no substantive controls for fatigue. That review, based on the 2015 hours of service policy, identified more than 800 instances of employees exceeding the allowable workday duration, 2,350 instances of exceeding shift service, 1,613 instances of exceeding release period limitations and 1,717 instances of exceeding consecutive days worked restrictions. QICO determined that RSTO has no way to count and assess these violations and had no documented way to examine what causes the violations or how to reduce the violations to improve safety.

Metrorail has open CAPs C0008-A and C0008-B related to the need to develop an effective hours of service policy, but the existing policy that is in effect must be followed while Metrorail develops, negotiates and implements more robust policies that cover necessary areas supported by fatigue research including such important safety measures as a guaranteed day off each week. These safety measures are linked to schedules and working hours that provide enough opportunity for employees to sleep.



Minimum Corrective Action: Metrorail must comply with its fatigue management policies. OHAW, SAFE and other departments must share information related to fatigue policy implementation and trends in order to improve safety.

There is not adequate access to, documentation of, or compilation of data for WMATA to assess compliance with its hours of service requirements.

Metrorail has only fragmented data related to specific hours worked for many personnel, which makes it difficult, and in some cases impossible, to regularly monitor hours of service and fatigue-related hazards.

Although RTRA provided train operator work periods to the WMSC, other departments did not have the clock in and clock out times needed to determine compliance with rest periods and shift limitations.

Hours worked for other workers covered by WMATA's hours of service requirements in Policy/Instruction 10.6/1, Fatigue Risk Management Policy are generally available only as planned schedules and total hours, rather than the specific times actually worked, which limits the ability to review important safety aspects such as time off between shifts.

WMATA's latest effort to roll out a revised clock in/clock out system was underway at the time of this audit, which may provide some additional information.

The OIG investigation into timecard irregularities due to sharing of duplicate badges noted above suggests that some existing data may or may not be completely accurate, and the WMSC reviewed recordings of a manager directing an individual in the ROCC to put hours from one day on a different day on their timesheet in order to avoid documenting an hours of service violation.

The TOC identified concerns about the accuracy of hours of service documentation in its 2016 audit.

Minimum Corrective Action: Metrorail must capture and maintain in a useable form all data necessary to assess hours of service compliance, must ensure that the data is accurate, and must utilize this data to identify and implement safety improvements.



4

This creates a risk that a safety sensitive employee is operating a train or conducting other critical functions with undiagnosed or untreated conditions such as diabetes, hypertension and sleep apnea that, when not properly managed, increase the risk of loss of consciousness.

5

WMATA does not conduct safety sensitive physicals at the time of or soon after hire as required by its policies.

OHAW reported that Metrorail requires all safety-sensitive personnel to complete a medical evaluation with a third-party vendor before hire, but does not consider this to be the examination that WMATA requires to actually perform in a safety-sensitive position. OHAW personnel explained that OHAW expects departments to send personnel to OHAW for an additional, official examination soon after hire, but there is no communication, enforcement, or tracking of this initial screening.

Many personnel may never receive this official medical evaluation, and therefore they never receive a safety sensitive medical card for expiration tracking. Without this physical, an employee may never enter into any OHAW or department-based system for recurring physicals. It was unclear why the third-party and OHAW medical examinations are not consolidated into one at the time of hire and completed while OHAW still has a “touch point” with the employee.

Minimum Corrective Action: Metrorail must implement a process that ensures that new employees are not permitted to act in a safety sensitive position until all required medical evaluations are completed and their safety sensitive medical card has been issued.

Not all safety sensitive employee positions have fully documented and up to date physical and medical requirements.

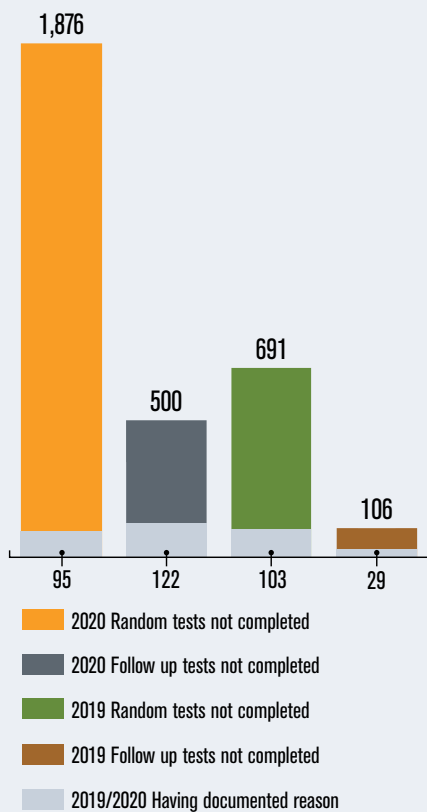
Job descriptions, such as Station Manager, are very old and others are not up to date to reflect current physical and medical requirements. Others have been updated to include specific items such as lifting requirements or visual acuity.

APTA standard RT-OP-S-018-12, Fitness for Duty (FFD) Program Requirements, revised in 2019, specifies that the transit agency shall identify minimum physical and medical requirements related to job responsibilities. These should correspond to the medical standards OHAW has set forth in its biennial medical examination program.

OHAW personnel stated that they are not consulted on job descriptions and the related medical and physical requirements, and that departments create those independently without the input of Metrorail’s medical experts.

6

OHAW Drug and Alcohol Testing



Minimum Corrective Action: Metrorail must update its job descriptions to be full and complete, including all current medical and physical requirements to carry out the job. Metrorail must develop and implement a process for this and all future updates that ensures medical experts in departments such as OHAW are consulted each time job descriptions for positions covered by WMATA's fitness for duty and related requirements are reviewed and updated.

Many follow up and random drug and alcohol tests required by Metrorail policies and federal regulations were not completed with no documented reason why the tests were missed.

OHAW's drug and alcohol testing spreadsheets demonstrated that 1,876 random tests were not completed in 2020; only 95 of those cases had a documented reason for the missed test such as a long-term vacation or backlog from COVID-19-related issues. Similarly, 500 follow-up tests were not completed in 2020, with only 122 of those having a documented reason. In 2019, 691 random tests were not completed, with just 103 of those having a documented reason why the test was missed. Also in 2019, 106 follow-up tests were missed, and just 29 of those had documented reasons.

Even in the limited cases in which a reason is documented for not conducting random testing in 2020, some do not appear to be valid. For example, one employee was listed as testing not being conducted because they had transferred to the ROCC to become a controller, but that is still a safety sensitive position, and they were active in on-the-job training at the time of selection. The FTA Implementation Guidelines for Drug and Alcohol Regulations in Mass Transit require Metrorail to attempt to test through the end of the selection period, which Metrorail has set as a monthly cycle, and to document why any test is not completed.

There are some circumstances, such as an employee out on long-term leave, in which federal regulations allow for documentation to justify a test not being completed, however WMATA must document reasons for these missed tests to confirm that there was an effort to test.

Given the lack of documentation, it is not clear whether these tests are missed due to notification issues, late arrivals, paperwork issues or other problems.

The 2018 TOC Audit identified similar documentation concerns.

The 2019 FTA Audit identified that Metrorail was inappropriately not attempting to complete testing of employees selected for random testing if they were not available on the selected date or because they happened to be off or sick.



7

Minimum Corrective Action: Metrorail must document and implement a step-by-step process to fully document the reason(s) why any test is not completed and must document when a delayed test has been conducted. Metrorail must assess any trends in tests that are not completed and address the root causes of those issues in order to improve compliance.

WMATA does not have written criteria for post-incident testing and does not consistently implement post-event testing.

WMATA carries out an important safety precaution by conducting post-incident testing under its own authority, in addition to the post-accident testing required by federal regulation. However, Metrorail does not have written criteria governing when those post-incident tests must be conducted, leaving it up to supervisor discretion and thus the potential for inconsistency.

Interviews for this audit demonstrated that this type of testing is frequently used for its intended purpose of capturing necessary information related to investigations that do not require testing under federal regulations, but also that these tests are sometimes used for other purposes such as testing an employee who had a negative interaction with a coworker.

Policy/Instruction 7.7.3/6 states that post-incident testing may be performed, but it does not state when it must be performed.

Clear definitions and thresholds for post-incident testing, provided alongside related training, thresholds and complete documentation of post-accident testing would also provide additional controls to ensure that all post-event testing (both post-incident under WMATA authority and post-accident when required by federal regulations) is completed appropriately.

In the sample of 2020 post-accident tests audited, several accidents that appear to meet FTA-required testing criteria (in parentheses) in 49 CFR 655.4 and specified in WMATA policy based on investigation reports were not included as DOT post-accident tests in records provided for this audit including:

- Jan. 4: Yard collision with stationary train (removal of vehicle from operation)
- Jan. 19: Yard collision/hard coupling (removal of vehicle from operation)
- Feb. 14: Hi-Rail vehicle derailment (removal of vehicle from operation)

In response to the draft of this audit report, Metrorail provided Office of Rail Transportation (RTRA) incident reports that stated that at least some individuals involved in these events were removed from service for testing. However, as noted



Clear definitions and thresholds for post-incident testing, provided alongside related training, thresholds and complete documentation of post-accident testing would also provide additional controls to ensure that all post-event testing is completed appropriately.



above, there were no such testing records in OHAW's documentation reviewed for this audit, and no records of the tests were provided.

The lack of written criteria and specific guidance for post-incident testing was identified for WMATA to address in both the 2016 and 2018 TOC fitness for duty audits.

For both post-accident and post-incident testing, OHAW is only aware of those employees who show up for testing, and is not consulted when decisions are made not to test. Therefore, OHAW personnel were not aware of instances in which testing should have occurred that did not, even in the cases in which the WMSC had communicated those deficiencies to WMATA or SAFE had included the deficiencies in final investigation reports.

OHAW does not have access to real-time safety event information, so there is no opportunity for OHAW to check on whether supervisors make the correct determination on testing.

The WMSC has identified tests not properly conducted in a number of instances including investigation W-0065 into a serious contractor injury in a vent shaft on the National Mall on September 9, 2020 where the contractors were not tested.

OHAW stated it was very rare to test contractors, even though WMATA's policy states that contractors are to be tested at the WMATA testing site for post-accident and post-incident testing.

Among other events, in December 2020, a ROCC manager opted against policy not to send a controller involved in a misrouted train at East Falls Church for testing because of staffing challenges. That event was the second on that shift, so a controller involved in the other event had already been sent for testing. This is not a valid reason not to test an individual who may have contributed to a safety event. On December 29, 2020, a Rail Transportation supervisor improperly entered the operating cab of the last train of the evening, contributing to an improper door operation. Both the train operator and the supervisor operated doors, leading to doors opening on both sides of the train. The supervisor and train operator did not report the doors opening on the wrong side at Capitol Heights Station. While the supervisor contributed to this safety event, the supervisor was not tested following the event.

In another example, on June 14, 2021, an operator of a train that the ROCC had reason to believe had moved without speed commands from Addison Road Station was not taken to the testing site. The operator was told to wait on the platform for a supervisor, but that was not coordinated with the Terminal Supervisor, and the operator left Metrorail property unescorted and did not report to the testing site.



Minimum Corrective Action: Metrorail must document and disseminate the criteria for post-incident testing, which may include incorporating these new criteria into decision checklists provided to managers or supervisors to determine whether post-accident or post-incident testing is required. Metrorail must ensure that all departments, employees and contractors understand that required testing must be completed, and that any requirements are included in Metrorail contracts. Metrorail must share safety event information with appropriate departments and must provide real-time accident information to OHAW staff or designate someone within SAFE to ensure the appropriate type of post-accident/incident test is completed.

Supervisors are not receiving reasonable suspicion training as required by Metrorail policy and federal regulation.

Reasonable suspicion training is required for supervisors to properly identify when an employee might be using or under the influence of prohibited substances.

According to documentation provided by WMATA as part of this audit, no supervisors in any department received this training from the onset of the public health emergency through the time this audit began. This training is permitted to be conducted remotely and is not required to be conducted in person. After this was pointed out in WMSC audit interviews, and after the draft of this audit report was transmitted to WMATA, Metrorail stated that it restarted some training beginning in late February 2021.

Documents provided during this audit demonstrate that new Metro Transit Police Department supervisors of safety sensitive personnel did not complete reasonable suspicion training in 2020 as required. Some other MTPD supervisors did complete a computer-based course in 2020.

RTRA employees were not listed in Enterprise Learning Management (ELM) system reasonable suspicion training records provided during this audit for 2018, 2019 or 2020, and interviews identified that there are supervisors who have not received the required training. After the draft of this audit report was transmitted to WMATA, Metrorail provided separate records that listed RTRA employees who had received or been scheduled for reasonable suspicion training in 2018, 2019 and 2020.

Without training, supervisors may improperly refer personnel for testing, or fail to refer personnel for testing when they exhibit the defined signs of using or being under the influence of prohibited substances.

Utility supervisors – frontline employees who sometimes fill in as supervisors – in multiple departments also were not completing this training even prior to the public health emergency.

There is no one with clear responsibility for ensuring that all required personnel complete this training.

The TOC identified in 2018 that Metrorail was not providing all supervisors with reasonable suspicion training in a timely manner.

Minimum Corrective Action: Metrorail must ensure that all personnel acting in a supervisory role receive reasonable suspicion training as soon as possible. Metrorail must designate a responsible individual for ensuring this is completed on an ongoing basis.

WMATA does not provide adequate, clear, understandable information to employees regarding what over-the-counter medications must be disclosed.

Metrorail policy requires its safety-sensitive employees to disclose all prescription medication as well as over-the-counter medication that would impair the employee's job performance or motor skills, but leaves it to the employee's discretion to determine what over-the-counter medication might impair their abilities. There is no information provided that would make it clear to an employee what medications would fall into this category or that provides any guidance on how to make that determination.

This medication information is intended to be used so that Metrorail can determine whether employees may be impaired or whether they may need additional medical monitoring.

The 2018 TOC fitness for duty audit identified a need to systematically track notifications of medication use by employees to ensure all notifications that are submitted are reviewed and that employees are notified about a decision regarding their use.

The FTA Prescription and Over-the-Counter Medications Tool Kit provides guidance on an effective path to addressing this issue. As an example, other entities, such as Metro-North Railroad in response to NTSB recommendation R-14-063, have developed related over-the-counter and prescription drug awareness pamphlets for distribution to all employees.

Minimum Corrective Action: Metrorail must provide clear information to employees to ensure that all relevant over-the-counter medication is reported.



WMATA does not have procedures to confirm that employees are consistently removed from service for positive drug and alcohol test results in a timely manner as required by federal regulations.

OHAW procedures provided for this audit require OHAW to notify the employee's supervisor of the positive test in a timely manner. However, no documentation was provided in response to the WMSC's request for "all policies, procedures, and other reference documents related to the drug and alcohol program, fatigue/alertness management program, medical or physical requirements, or any other aspect of fitness for duty" related to specific requirements of an employee's supervisor(s) at the point the supervisor is notified of a positive test. The WMSC separately obtained a 2017 WMATA Drug and Alcohol Procedures Manual that implemented a now-superseded Drug and Alcohol Policy that assigned responsibility for drug and alcohol to the head of each business unit and stated that a supervisor would remove an employee who tests positive from safety sensitive functions and provide employee assistance program information to the employee. Based on the documents provided for this audit and related interviews, it appears no such similar policy or document is in effect related to the current drug and alcohol policy.

Federal regulations (49 CFR 40.23) require that "As an employer who receives a verified positive drug test result, you must immediately remove the employee involved from performing safety-sensitive functions. You must take this action upon receiving the initial report of the verified positive test result."

Documents provided as part of this audit demonstrate at least one instance in which an employee was tested on February 25, 2020, but the employee was not removed from service for the positive test until April 6, 2020.

Test results should be completed and confirmed in several days, not several weeks.

Although MSRPH Rule 1.26 requires employees awaiting test results for post-accident or post-incident testing not to perform safety sensitive duties until the results are returned; for random tests, employees return to work while results are pending. This makes the timely confirmation of random test results critical to the safety of the Metrorail system.

Because Metrorail opts not to inform employees of negative test results from random tests, and only communicates positive tests, employees would not have any way of knowing whether test results were completed or remained pending.

Minimum Corrective Action: Metrorail must set a maximum timeframe to verify and document positive tests, and to document removal from service, that provides for the safety of employees, contractors, customers and first responders.

OHAW maintains primarily paper records, which impedes the collection, tracking and trending of data.

WMATA does not have a documented procedure for and training to carry out fitness for duty checks prior to or during shifts on a regular basis for all covered employees as specified in the APTA Fitness for Duty Standard.

Metrorail does not require or conduct eyes-on or other fitness for duty assessments prior to or during employee shifts on a regular basis for all employees covered by the fitness for duty program.

According to interviews, Metrorail personnel are not familiar with the one existing Operations Administrative Procedure (OAP) that does provide for some aspects of these checks for train operators only. OAP 201-05 relates to checks when train operators begin their shifts, however the depot clerks that are involved have no documented training on fitness for duty. There are no similar procedures outlining such checks for other Metrorail personnel.

QICO's RSTO review also found that although OAP 201-05, updated in December 2013, provides for train operators to be deemed fit for duty before a clerk issues a run manifest for their shift, depot clerks, supervisors and superintendents were not aware of the OAP. Depot clerks are also not necessarily positioned in a way to observe operators. Paper bulletins may obstruct the clerks' view in hallways that are sometimes dark. RTRA issued an operations personnel notice on February 5, 2021 stating that no signage should be placed on the depot clerk's office window.

The APTA fitness for duty standard states that a rail transit agency shall establish a program that describes the process for ensuring that covered employees are assessed for fitness for duty prior to and/or during their shift on a regular basis.

While these assessments may not always identify all fitness for duty issues that exist, they add an additional layer of protection for identifiable risks when properly implemented.

After this was identified during this audit process, Metrorail took steps toward updating the procedures in the OAP by moving to incorporate them into SOP 400-02, Issuing Work Assignments to Train Operators.

Minimum Corrective Action: Metrorail must establish, implement and document a program that ensures covered employees are assessed for fitness for duty prior to and/or during their shift on a regular basis.





Individuals interviewed for this audit acknowledged the rudimentary nature of these records given the size, complexity and resources available to WMATA as one of the largest rail transit systems in the United States.

RECOMMENDATIONS

1 Metrorail does not collect fitness for duty data in a manner that allows for identification, tracking and trending of issues.

OHAW maintains primarily paper records, which impedes the collection, tracking and trending of data, including any trends in drug and alcohol testing results and the identification of expired certifications, and contributes to WMATA's failure to identify and complete required medical examinations and other fitness for duty checks.

Multiple people interviewed for this audit identified the lack of centralized electronic records systems as a risk that limits tracking and trending of data, and that poses a risk of records loss in events such as the May 2020 fire at the Jackson Graham Building. Individuals interviewed for this audit acknowledged the rudimentary nature of these records given the size, complexity and resources available to WMATA as one of the largest rail transit systems in the United States.

In addition, Metrorail does not have a comprehensive, documented sleep disorders identification, treatment and monitoring program that reaches all safety sensitive employees.

To the extent WMATA has begun to develop limited sleep disorder and fatigue programs, the two have operated entirely separately from each other, which has contributed to a lack of available information regarding sleep disorder identification, tracking and treatment compliance monitoring.

Data on sleep disorder management and fatigue-related fitness for duty is not readily available in a usable format.

In addition, that data only captures those employees who OHAW is aware have a sleep disorder. There is no coordinated screening program, and, given the lack of regular physicals (Finding 1), there is no way to know how many personnel are at elevated risk of sleep disorders, have been diagnosed with sleep disorders, or are complying with treatment plans.

An effective sleep disorders program would lead to more employees being tracked and treated, and could reduce the need to hold employees out of service for issues that are not identified and addressed in a systematic way.

Other medical issues, such as hypertension and diabetes, carry similar risks but are not being assessed and addressed in a systemic way.

The limited data availability, combined with the lack of communication and information sharing between OHAW, SAFE and other WMATA departments, exacerbates the risks that safety issues will be missed.

The current workflows also mean that WMATA does not have a systemic approach to identifying and addressing trends or risks determined by post-event or random drug and alcohol testing. Even aggregated information is not provided to the Safety Department.

Metrorail misses a key benefit of post-event and other drug and alcohol testing by not performing regular analysis of trends that would indicate systemic safety issues that could be addressed through awareness campaigns, increased surveillance testing, or other means. Such analysis could help support the proactive, preventive safety goals of Metrorail's SMS, particularly if SAFE and OHAW begin to cooperate and share data related to testing results or other aspects of fitness for duty such as fatigue management.

Data accuracy is also unclear. For example, an employee whose return to duty paperwork shows they were in the follow up testing program does not appear on the master testing list provided to the WMSC for completed or not completed tests. In some other cases, OHAW personnel stated they have not been able to find a paper chart and relied solely on an employee's statements.

The limited data availability, combined with the lack of communication and information sharing between OHAW, SAFE and other WMATA departments, exacerbates the risks that safety issues will be missed.

Fatigue information, for example, is not properly captured in areas such as the safety measurement system, and OHAW and SAFE have not gathered and shared basic information related to wellness and fatigue or sleep disorder treatment compliance.

OHAW described very early steps taken later in 2020 to discuss the general scope and requirements of a centralized records system with the IT department, however the potential implementation date at the time of this audit was several years away.

Possible Corrective Action: Metrorail should implement and utilize a comprehensive electronic recordkeeping system (which may be a commercially available electronic medical records system) that includes the tracking and trending of individual and aggregated fitness for duty data. This trend data should be shared with all appropriate departments and be acted upon to improve safety. WMATA should develop, fully implement, document and sustain an effective Metrorail-wide sleep disorder and medical disorder awareness, identification, treatment and compliance monitoring program.



Metrorail is utilizing contractors in a number of safety-sensitive positions for which a medical, fatigue or other fitness for duty issue could directly lead to injury or damage.

② Metrorail is not providing medical oversight of contractors and does not include any requirement in contracts that contractors meet WMATA medical, fatigue or hours of service standards.

Metrorail does not require contractors to meet WMATA medical standards, and does not conduct any oversight of contractor medical fitness for duty programs.

WMATA incorporates drug and alcohol requirements into contracts and OHAW conducts some oversight of those programs (required corrective actions related to testing and a lack of required training in contractor programs were identified by the 2019 FTA Drug and Alcohol Audit), but there are no similar safety measures as it relates to medical and other fitness for duty programs. Federal regulations require Metrorail to oversee contractor compliance with DOT drug and alcohol requirements. APTA's Fitness for Duty Standard further states that fitness for duty standards, not just minimum federal drug and alcohol requirements, should be used by any covered individual or organization that influences how the rail system is operated, including consultants and contractors.

Metrorail also does not incorporate fatigue risk management or hours of service restrictions in contracts. During safety event investigations, the WMSC identified contractors working seven or more consecutive days or working many consecutive lengthy shifts for prolonged periods, which increases the likelihood of an accident, incident or other safety event.

Metrorail is utilizing contractors in a number of safety-sensitive positions for which a medical, fatigue or other fitness for duty issue could directly lead to injury or damage. For example, Metrorail utilizes contractors as Advance Mobile Flaggers (AMFs) who are responsible for notifying train operators that a work crew is on the roadway ahead. In early May 2021, an initial WMSC investigation into a Roadway Worker Protection (RWP) violation identified that a contractor AMF was sleeping at the time of the event. The contractor had worked a lengthy overnight shift for a construction project, and then proceeded to a different shift as an AMF.

Metrorail also utilizes contractors to operate hi-rail maintenance vehicles and to conduct a variety of construction or maintenance work across the system. Those contractors have been involved in a number of safety events including injuries and derailments.

Possible Corrective Action: Metrorail should require contractors performing in safety sensitive functions to meet its medical fitness for duty standards. Metrorail must ensure contractors' compliance with this requirement.

③ WMATA does not have a policy in place to test employees or contractors involved in a safety event who are hospitalized but conscious and providing consent.

The validity of drug and alcohol test results declines as time passes from an event as the body metabolizes the substance, so conducting a test within minutes or hours of an event provides the most accurate information to help identify future safety improvements. However, Metrorail does not have a policy, agreement with hospitals, mobile testing function, or any other measure in place to attempt to collect samples or otherwise have samples collected for personnel who may be taken to a hospital following a safety event.

Testing of individuals who are hospitalized is done at other transit agencies, but OHAW expressed concerns about not being in control of the process if the collection is done outside of their testing site.

The lack of testing at hospitals can lead to or contribute to tests not being conducted.


For example, Metrorail did not ensure testing was conducted related to investigation W-0065 into a September 9, 2020 contractor injury in Vent Shaft FF2 on the National Mall. A contractor fell approximately eight feet to the bottom of a drainage pumping station pit, resulting in a broken leg and broken nose due to a lack of WMATA oversight of contractors, lack of work planning to identify safety risks and the need for fall protection, and communication challenges created by ongoing fan operation.

The contractor who was injured was taken to the hospital, and Metrorail did not test that contractor as required under WMATA's policies.

Metrorail also failed to conduct drug and alcohol testing on the other contractor who was serving as a foreman for the work.

This recommendation relates to instances where an employee or contractor provides consent because a refusal to consent to testing is considered a non-negative test, which has the same implications as a positive test.





Possible Corrective Action: Metrorail should assess the feasibility of conducting testing for personnel who are hospitalized and implement any steps that are identified as feasible.

4 Metrorail does not confirm the accuracy of new hires' self-reported list of prior DOT-covered employers.

The current process to obtain new hires' prior DOT-covered employer testing information has a loophole that may result in omitted information.

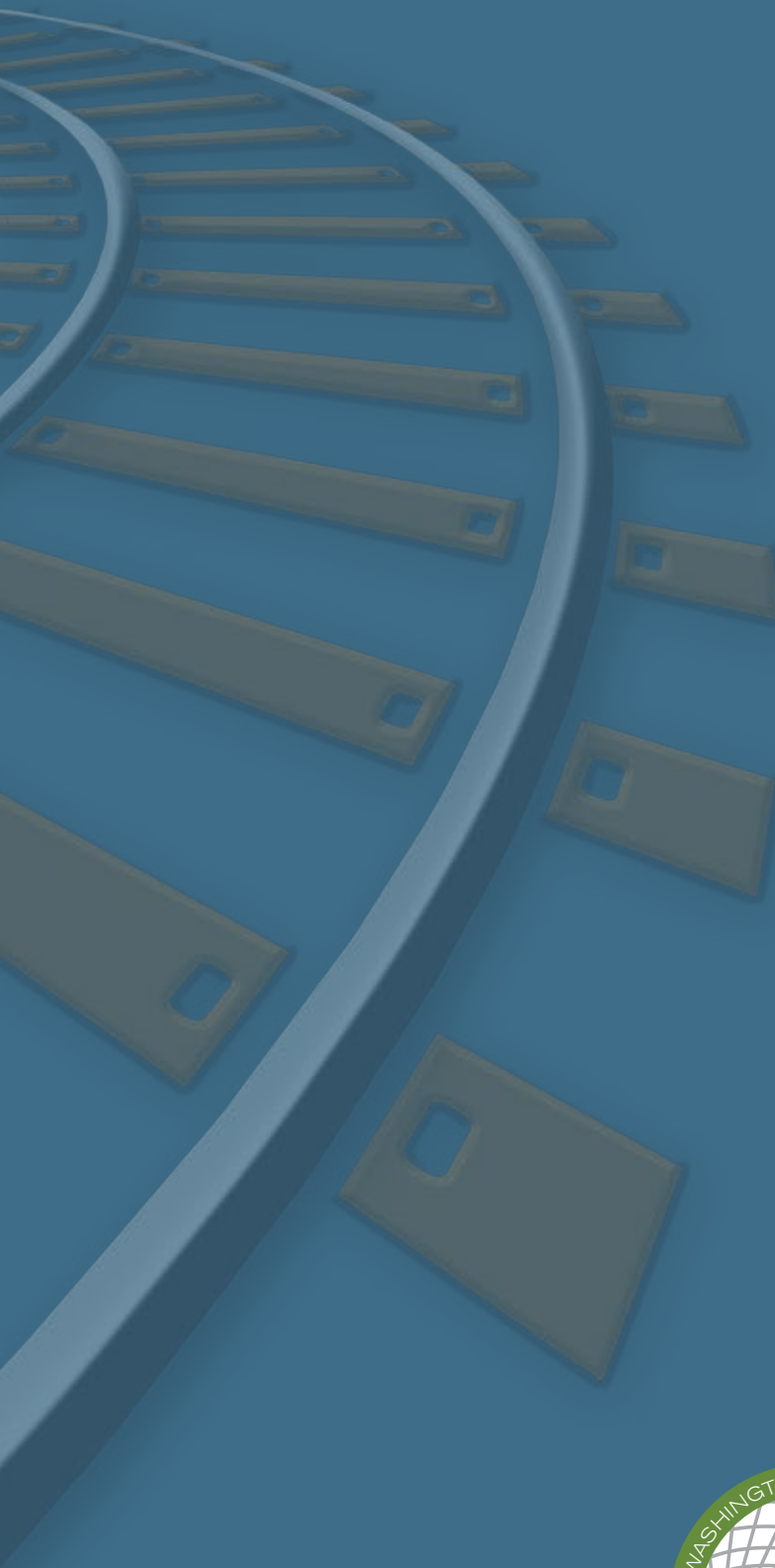
Under 49 CFR 40.25, WMATA must attempt to confirm with a new hire's prior DOT-covered employer(s) that the employee did not test positive for drugs or alcohol in the prior three years, or if tested positive, that the employee successfully completed a treatment program. When hired, Talent Acquisition gives the applicant a prior employer information form and an associated waiver allowing disclosure of records from the prior employer(s) to complete and submit to OHAW. However, OHAW does not have the employee's employment application or background check information to verify that all prior DOT-covered employers were reported to WMATA appropriately. There is no coordinated check between OHAW and Talent Acquisition to ensure that all prior DOT-covered employers are included on the form submitted to OHAW.

The 2019 FTA drug and alcohol audit of WMATA identified separate issues related to these forms that were in use at the time of that audit.

Possible Corrective Action: WMATA should develop, implement and document a new hire process or procedure to check the prior DOT-covered employer forms provided to OHAW against other resume and background information, to ensure that all DOT-covered employers are accounted for.

Next Steps

WMATA is required to propose CAPs for each finding and respond to each recommendation no later than 30 days after the issuance of this report. Each proposed CAP must include specific and achievable planned actions to remediate the deficiency, the person responsible for implementation, and the estimated date of completion. Each proposed CAP must be approved by the WMSC prior to WMATA implementation. For each recommendation, WMATA must either propose a CAP or submit a hazard analysis and associated documentation as required by the WMSC Program Standard.



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