

Office: 202-384-1520 • Website: www.wmsc.gov

Washington Metrorail Safety Commission Metrorail's noncompliance with its train operator certification requirements February 28, 2024

Overview:

- Metrorail has train operator certification requirements to ensure operators have the knowledge and skills needed to safely operate trains (in normal situations and in emergencies).
- Following safety concerns identified during safety event investigations that demonstrated personnel not carrying out safety requirements that certification is designed to validate, creating risks of collision and other safety issues, the WMSC reviewed Metrorail records and gathered information through investigative interviews. This review shows Metrorail is assigning personnel to operate trains who have not met these safety requirements. This does not meet Metrorail's own safety requirements.
- The WMSC communicated these concerns to Metrorail management multiple times during 2023, and again in 2024.
- Metrorail has now begun to develop concepts for future, long-term improvement. However, Metrorail has not addressed its use of operators who were not properly certified in accordance with Metrorail's safety requirements.
- Further action is required to ensure Metrorail follows its operator certification processes, and to ensure that Metrorail only uses personnel who have demonstrated their ability to operate trains safely and properly.
- This order requires Metrorail to
 - \circ identify employees within 30 days who have not been properly certified;
 - \circ conduct proper certifications of those employees within 90 days; and,
 - develop corrective action plans to ensure that, moving forward, certification is consistently conducted in accordance with its safety requirements.

Summary of work

The WMSC identified through safety event investigations that Metrorail has continued to deviate from the train operator certification procedures and requirements that Metrorail has designed to ensure that train operators have the required safety and operational skills to safely operate trains. This led the WMSC to review certification records for other train operators. This review included all new train operator certification records for those operators certified from January 1, 2022 through September 2023, and a review of Metrorail's records for train operators who were recertified in December 2022 and



January 2023 (this recertification process includes all personnel in positions that require train operator certification such as train operators, rail supervisors, railcar maintenance road mechanics, and interlocking operators). The WMSC also reviewed current 2023 train operator certification records for railcar maintenance road mechanics, who are required by Metrorail to maintain this certification due to their responsibilities, which include operating trains. Our review found deficiencies and omissions in the train operator certification process.

This review of Metrorail's certification activities follows up on safety issues related to train operator certification that the WMSC identified and communicated to Metrorail in 2021 and 2022. Metrorail committed to specific improvements in spring 2022 to bring operators up to date on certification as required by Metrorail safety processes. The WMSC then conducted this follow-up review in 2023 of Metrorail's conduct of certification exams, continued to communicate issues to Metrorail as operator certification exam issues were identified during safety event investigations and during this review, and completed this review in December 2023.

Metrorail has now begun to develop plans for future, long-term improvement, but has not addressed its use of operators who were not properly certified in accordance with Metrorail's safety requirements.

Metrorail is not consistently and reliably following the safety training requirements of its Public Transportation Agency Safety Plan (PTASP) and Performance Standardization Program that Metrorail has developed to provide for the safety of Metrorail riders and personnel. Consequently, Metrorail cannot validate that personnel who are operating trains can safely carry out their duties. The WMSC communicated these deficiencies to Metrorail on multiple occasions in 2023, and in 2024. However, Metrorail has allowed personnel who were not properly certified to continue to operate trains.

Overall, Metrorail requires more than 350 train operators each weekday, as well as other personnel who must be properly certified as train operators such as rail supervisors, interlocking operators, and car maintenance road mechanics.

Metrorail's Performance Standardization Program is incorporated by reference in its Agency Safety Plan (Section 5.1.1, Employee Safety Training of PTASP version 3.0 effective Dec. 31, 2022-Dec. 30, 2023, and in effect during this review). Metrorail's Agency Safety Plan explains that after training has been completed, written and practical testing (certification) is intended to validate operational readiness and knowledge of operating and safety rules and procedures. The Agency Safety Plan requires all train operators to be recertified every two years with written and practical testing as specified in the Performance Standardization Program. Metrorail's current Performance Standardization Program Manual: Train Operations is the Sixth Revision, dated June 2020. Prior to 2020, the revision table states the manual was revised in 2011 (Fifth Revision) and in 1994 (Fourth Revision). The written exams are



closed book exams covering Metrorail safety rules, operator instruction manuals, and other governing documents. All personnel are required to score at least 75% on each exam.

Metrorail's Agency Safety Plan further requires that each train operator who fails the certification examination be given special retraining on a specific timeline.

The WMSC's review identified many examples of Metrorail not following its procedures for certification in its Agency Safety Plan and the associated Performance Standardization Program Manual. As described below, Metrorail is designating train operators as certified despite their certification documents indicating that those individuals had not attempted or successfully completed required tasks that are specifically included in Metrorail's Performance Standardization Program. Among other things, these tasks include specific certification requirements to address deficiencies identified during the investigation of accidents, such as the 2015 fatal smoke accident near L'Enfant Plaza Station. For example, in response to that accident and the recommendations that arose from the NTSB Investigation into that accident, Metrorail informed the National Transportation Safety Board in 2023 that it had added an environmental system¹ shutoff demonstration to its certification requirements. That demonstration is now listed as part of the train operator practical certification exam requirements; however, the records the WMSC reviewed show that this task demonstration is not being implemented for all certifying train operators, as Metrorail's own program requires.

The WMSC's review of train operator certification records demonstrates that Metrorail is not ensuring that its operators have the skills that Metrorail requires of them and that the operators need to respond to an emergency. Therefore, the WMSC is issuing the below order and associated findings.

Background

The WMSC identified and communicated to Metrorail certification deficiencies for rail operations personnel (including train operators) at an exit conference for the Rail Operations Audit in fall 2021. Among the findings listed in the final report for that audit issued on April 7, 2022 was that Metrorail is not meeting its operational refresher training and recertification requirements. This included personnel who were operating trains despite not meeting Metrorail's train operator certification requirements and not meeting Metrorail's refresher training requirements. Near the conclusion of that audit in 2022, the WMSC learned and communicated to Metrorail leadership that Metrorail had stopped conducting train operator certifications entirely and that Metrorail was utilizing operators without current certifications under Metrorail rules. Metrorail committed in spring 2022 to addressing these issues for 257 employees and properly conducting its certification exams so that all active personnel would have current

¹ Metrorail sometimes refers to the environmental system as the "EV system," but the term "environmental system" is used in this document.



certifications. However, the WMSC's current review has shown that Metrorail continues to perform its train operator certification activities inconsistently and not in accordance with its safety requirements.

Certification follows training

Certification is an activity Metrorail requires after training is complete. Training is a separate activity and was not included in this review.² This review focused on certification activities, including activities required by Metrorail following a failed certification attempt.

The certification activities are conducted by Rail Transportation Quality Assurance/Quality Control, a different organizational unit from the Technical Training Development/Rail Operations Quality Training unit that conducts the train operator initial and refresher training. This subsequent certification process includes written and practical certification exams and verification that each individual possesses the necessary materials for their role such as the rules and procedures and safety gear. Metrorail requires retraining after a failed certification exam. During safety event investigations, Metrorail's Rail Quality Assurance personnel and certification personnel stated that this required retraining after a failed certification exam.

Safety events during passenger service

During the investigation of a February 9, 2023 improper movement on the Green Line (W-0232) in which a train operator moved a train against the normal flow of traffic without required permission or protection against collision, the WMSC identified that the train operator's certification records showed that the operator had not been required to demonstrate all required elements during certification. This incomplete certification was corroborated with an investigative interview. Metrorail conducted the certification with two trainee operators on board, one at each end of a train. Each trainee operator was only required to demonstrate some (not all) of the tasks required for certification. Some of the items that were not conducted, according to the train operator's interview or records, included the operator not being required to demonstrate the ability to operate the environmental system, which is necessary

² The WMSC had previously identified and communicated to Metrorail in January 2023 that Metrorail was not meeting its own safety training requirements for train operators prior to certifying the operators and placing them into passenger service. Metrorail subsequently provided more than 50 operators who had not completed the required training with the hands-on mainline training with a training instructor, and Metrorail committed to following its safety training requirements in the future. The safety training includes providing trainee operators with at least 8 hours of time with a training instructor while operating a non-passenger train on the mainline, before placing the operator at the controls of a train in passenger service under the supervision of a mentor for lat least an additional 32 hours of experience (this is in addition to Metrorail's training requirements for hands on training on trains in rail yards). The WMSC will continue to follow up with Metrorail on satisfying its training requirements and associated documentation. The focus areas of this review related specifically to the certification process that Metrorail requires after this hands-on training is completed.



to protect the health and safety of riders and personnel in emergencies such as smoke events in tunnels (see below). Other items not conducted included demonstrating the proper use of a route selector box that is necessary in some circumstances to properly route trains. Further, for both trainee operators who were certified while operating at opposite ends of the same train, Metrorail's certification documents list identical completion times, each a round number, for each operator's actions for multiple sub-tasks.

Metrorail's Performance Standardization Manual requires each task to be completed within a specified time for an operator to be certified. As further described below, there are multiple instances in the certification records of identical, round-number times being recorded. For this specific operator, Metrorail not requiring them to demonstrate competence in turnback moves led to the operator being assigned to operate trains in passenger service without the demonstrated ability to do so safely. When required to execute a turnback move due to the area ahead being evacuated for life safety reasons, the operator did not properly execute the movement, leading to a near-miss of a collision between passenger trains.

Other personnel Metrorail designated as certified as new train operators in January 2023 were also involved in safety events. Interviews demonstrated that they were also not directed to attempt all required safety tasks as part of their certification. These include a train operator who was involved in an improper train movement in February 2023 east of Stadium-Armory Station, a train operator who was involved in an improper movement in April 2023 near Ballston Station, a train operator who was involved in a red signal overrun in May 2023 near Pentagon Station, and a train operator who was involved in a red signal overrun in June 2023 near Ballston Station.

Further, records related to the February 9, 2023 improper movement event, and the subsequent review of certification records for all new operators certified from January 2022 to June 1, 2023, demonstrated that operators who fail certification exams are not receiving retraining as required by Metrorail's procedures. The records also show that multiple operators have been certified despite not being scheduled to attempt and not successfully completing their second attempt within the time specified by Metrorail procedures.

The operator involved in the February 9, 2023 improper movement that created the risk of a collision of trains in passenger service had failed their first attempt at certification, which, as described above, did not include direction to demonstrate all of the required tasks. During their first certification attempt, the operator failed to properly complete troubleshooting requirements. Metrorail, without providing retraining specified in its procedures and without requiring the operator to demonstrate all of the required tasks (including those areas the operator was not directed to demonstrate during the initial attempt), certified the operator later that same day after the operator completed replacement troubleshooting scenarios.



After the WMSC identified the certification deficiencies during this investigation, the WMSC and Metrorail investigation teams increased their focus on certification records of train operators involved in other events. The WMSC identified additional instances of Metrorail not following its requirements. These investigations and the subsequent records reviews demonstrate that systemic corrective action is required for Metrorail to meet its safety requirements.

For example, records for an operator involved in a red signal overrun on July 21, 2023 that posed a risk of collision near West Falls Church Station indicated that the operator had not been required to demonstrate competency shutting off the environmental system. This demonstration of competency is a safety requirement that Metrorail put in place due to safety deficiencies identified during the investigation of the 2015 fatal smoke accident near L'Enfant Plaza Station. The WMSC's review of certification records for several other operators who were also involved in safety events similarly showed that they had not been required to demonstrate the ability to carry out this safety task. Shutting down the environmental system in a timely fashion protects passengers and personnel from smoke or other contaminants that would otherwise more quickly enter into the train when passing through or stopped in an area where such hazards exist. Metrorail wrote to the National Transportation Safety Board on March 17, 2023, saying that "As part of the Primary Qualification Exam, Train Operators are evaluated for proficiency in shutting down the EV system," citing Metrorail's Performance Standardization Program Manual. Metrorail also wrote to the National Transportation Safety Board that, "As validation, and per the standard procedures, Rail Transportation Quality Assurance/Quality Control conducted an EV Shutdown audit of all rail divisions on February 16, 2023. The QA/QC Officer analyzed all certifications, recertifications, and In-Service Evaluations (ISE) forms for the month of January 2023 for all relevant staff due for Train Operator recertification. A total of 37 Rail Transportation team members were due for recertification and were examined for compliance and all were found to be compliant." Relying on these Metrorail statements, the National Transportation Safety Board classified Safety Recommendation R-16-019 as "Closed - Acceptable Action" on August 10, 2023. This was an important safety improvement following the January 12, 2015 accident; however, the WMSC has identified that Metrorail is not following the new safety requirement that it established. For example, the WMSC review of January 2023 train operator recertification records (described below) found that these records were not compliant with Metrorail requirements, such as certification records that had no documentation of the time taken to complete an environmental system shutdown.

Further, Metrorail has not adhered to its protocol for certification failure. For example, an operator involved in an improper movement at Federal Center SW Station on April 26, 2023 had not been required to successfully complete required written testing and failed two practical certification exams in May 2022. According to Metrorail's rules, the operator should have been disqualified as a train operator for 12 months due to the two failed attempts as a student. Metrorail's manual specifies that trainee operators may receive a maximum of two attempts at certification, and operators who are recertifying may receive a maximum of three attempts. However, Metrorail recorded the first failed attempt as



incomplete after inadequate performance in the rail yard that included failing to complete practical exercises in the required time to pass the certification exam. Recording this exam as incomplete is contrary to Metrorail procedures that reserve the use of incomplete for those circumstances in which the practical examination cannot be completed due to circumstances such as an emergency, and that further require that the incomplete areas be completed as soon as possible and "an overall practical score shall be assigned to the examination." During a subsequent certification attempt beyond the time period permitted for such an attempt by Metrorail's Performance Standardization Program Manual, the operator did not properly handle radio communications, made changes to Automatic Train Protection safety systems without permission. The operator's records show the train operator did not understand turn back moves, which directly relates to the April 26, 2023 safety event. Records for the third attempt, which Metrorail recorded as a second attempt, show that the operator was certified without attempting even the items that the operator had previously failed. This attempt had no time documented for the turn back move that the operator had failed on the second attempt, and the operator was not required to attempt yard communications (marked N/A), despite having failed that area on the second attempt. The records also showed that the operator did not retake the written exam that they had not met the required score on during the initial attempt. Instead, Metrorail designated the operator as certified based on an exam in 2020, from a prior certification attempt two years earlier.

Metrorail's Performance Standardization Manual does not allow marking practical exams incomplete due to poor performance. However, as described in the example above, exams marked incomplete were then relied upon to provide personnel with additional attempts to certify or recertify contrary to Metrorail safety procedures. To ensure competency, Metrorail requires initial certification to be successfully completed on either the first or second attempt. A second attempt must be completed immediately following no more than two days of refresher training. Recertifying operators are allowed up to three attempts. A third attempt is permitted after up to 14 days after a failure during a second attempt.

A failing score on the final attempt (second attempt for a new operator or third attempt for a recertifying operator) results in being disqualified from train operations for a specific time period. For recertifying operators, the disqualification is for 18 months. For trainees certifying for the first time, the disqualification is for 12 months. The use of "incomplete" designations on exams outside of the emergency circumstances specified in the Performance Standardization Manual is another example of Metrorail personnel not applying WMATA's documented safety requirements. As part of the above safety event investigation, Rail Transportation QA/QC reported 19 incomplete practical examinations within the past year, 10 due to conducting certification on a train that was not released for mainline use, 4 due to a lack of eight-car trains, 4 due to the inability of operators to show proficiency of tasks required for certifying, and 1 due to a request from rail training. Despite QA/QC responses referencing a lack of eight-car trains preventing certification, the Performance Standardization Program Manual specifies that certification be conducted on four-car trains.



In each safety event noted above, the investigation demonstrated that Metrorail had placed the operators into service even though they had not demonstrated required competency with safety tasks.

Additional records review

Because of concerns described above that arose during the Rail Operations Audit and safety event investigations, the WMSC conducted a review of additional certification records. Specifically, we looked at records for new train operators that Metrorail designated as "certified" from January 2022 through September 2023, and records of previously certified train operators who were recertified in December 2022 and January 2023. Both reviews showed that Metrorail did not consistently apply WMATA's documented safety requirements designed for the protection of riders, workers and first responders.

New Operator Classes

Of 27 operators Metrorail designated as certified from class 23-06 (primarily certified in August 2023), records for 14 operators (51.9%) do not meet the requirements of Metrorail's Performance Standardization manual. This includes instances in which required items were not completed, instances in which operators were recorded as passing the certification practical activity despite exceeding the maximum time, and instances of retesting being permitted beyond the time limits set in Metrorail's requirements. For example, an operator who is documented as exceeding the permitted time of 30 seconds to shut off the environmental system, was still recorded as receiving the highest grade, QL1.³ As with the other improper certifications and grades evident during the WMSC's review, this was not identified or addressed by supervisors or management. In multiple instances, operators were not required to demonstrate the required recovery operations. In another instance, clamping a switch was not required to be attempted. Metrorail also certified operators who did not have the required equipment in their possession, including personal protective equipment and the railcar troubleshooting guide. Some of these personnel received QL2 scores or lower in multiple categories, which the Performance Standardization Manual states requires retaking the entire practical exam to demonstrate competency, yet were marked as passing a second attempt without retaking the entire practical exam to demonstrate competency.

The Performance Standardization Manual specifies that for any overall failing score (QL3), the operator must be retested on subcategories in which they received a QL2 or QL3 score and must retake the entire exam if they score less than QL1 in 6 or more subcategories.

³ Metrorail scores train operator certification exams on a scale of QL1 (highest) to QL3 (failing) both in individual tasks/categories and as an overall score. One QL3 score or certain combinations of QL2 scores lead to an overall failing score.



The WMSC review of certification records for 19 members of class 23-07 (primarily certified in September 2023) demonstrated that three of the 19 individuals (15.8%) were certified despite their records not meeting the requirements of the Performance Standardization Manual. This included certifications marked as completed without times recorded to demonstrate completion of tasks within required standards, and train operators marked as passing their second certification attempt without passing all required tasks.

The WMSC communicated these issues to personnel at multiple levels of Metrorail management. This included reviewing specific examples in September 2023 with Metrorail managers directly responsible for training and certification. These managers acknowledged that the examples discussed from the operators certified in June 2023 were not properly completed. Metrorail allowed the operators to remain in service.

Recertification Records

The WMSC reviewed recertification records for train operators who Metrorail recertified in December 2022 and January 2023. Of the 34 certification records, 14 (41.1%) did not meet the requirements of Metrorail's Performance Standardization Manual. Examples of train operators who were certified despite their records not meeting Metrorail's requirements include operators who Metrorail designated as certified despite exceeding the maximum allowed time for specific tasks, operators Metrorail designated as certified despite their records not including any time for a task such as environmental system shutoff, train operators marked as passing a second attempt of the certification practical without completing all required tasks specified in the Performance Standardization Manual, an exam in which completion times for six items (preparation for service, turn back move, uncoupling, coupling, isolation, and recovery) were recorded as completed in exactly the maximum time limit for passing with a QL1 score, and other exams with times that are rounded. These also include personnel certified despite not possessing required documents or equipment (such as a flashlight), and personnel certified despite not meeting minimum written test score requirements (minimum score 75%). Some operator records included more than one of these deficiencies, such as a record that did not document any completion times for environmental system shutoff or recovery train operations, and did not list required details regarding manual switch operation that are necessary to demonstrate the activity was conducted.

The WMSC also identified several instances in which exam areas were improperly marked as QL1, but Metrorail procedures require a lower grade for the times that were recorded. Improperly receiving a QL1 score in an area of the exam prevents the proper overall determination of whether the individual met Metrorail's minimum requirements for certification.

Further, records reviewed showed that personnel responsible for conducting the certification repeatedly recorded identical completion times for different people conducting the same tasks and mis-graded



Office: 202-384-1520 • Website: www.wmsc.gov

those times as QL1 rather than QL2. For example, turnback moves were recorded on recertifications of 8 operators in December 2022 and January 2023 by the same QA certifier as taking exactly 3 minutes, which is more than the 2-minute maximum time specified to receive a grade of QL1. The 3-minute time recorded for this task is the maximum allowable time to receive a QL2 score; any longer would necessitate a QL3 score and a failure of the exam.

Additional issues identified during Revenue Vehicle (Railcar) Audit

Car Maintenance Road Mechanics are among the individuals Metrorail requires to maintain train operator certifications to safely carry out their duties. Road Mechanics respond to the location of trains including those that are passenger/revenue trains experiencing problems on mainline tracks and may be assigned to move a train, including a passenger/revenue train on mainline tracks.

The WMSC is currently conducting an audit of Metrorail's Revenue Vehicles (Railcar) programs that identified potential deficiencies related to Metrorail following this safety requirement. These identified issues led the WMSC audit team to request additional related documentation. Metrorail certification records provided in November 2023 covered certification activities conducted between February 2023 and October 2023 (the dates provided on forms did not match dates provided on a summary sheet Metrorail had for tracking certifications of road mechanics). These records and interviews conducted during this audit demonstrate that Metrorail is certifying Car Maintenance Road Mechanics in train operations despite them not being required to demonstrate all of the tasks required by Metrorail safety procedures. This includes Metrorail not requiring these personnel to demonstrate requirements specified in the Performance Standardization Manual for operation on mainline tracks, proper route selection, and conducting an environmental system shutdown in a timely manner. The records show that these personnel were not required to demonstrate the coupling, uncoupling, and manual switch operation (manually changing the alignment of a rail switch and ensuring it is ready for safe train movement) required by Metrorail's Performance Standardization Manual. Other of these personnel did not complete required interior inspections. The records pertaining to multiple personnel indicated that they performed a turn back move in precisely 2 minutes, exactly the maximum time allotted. Metrorail records show that road mechanics were marked as achieving the highest score, QL-1, on certifications despite not being required to demonstrate these required tasks.

Metrorail confirmed during this audit that these personnel are required to meet the same requirements of the Performance Standardization Manual, and that they are required to be certified using the same process as any other personnel who are authorized to operate trains on mainline (outside of rail yards).

For a road mechanic who was not required to demonstrate shutting off the environmental system, for example, Metrorail also did not require them to demonstrate mainline communications, door operation and station stopping, use of horn, speed adherence/manual operation and manual route selection. The only item recorded as demonstrated in the mainline operation category is a turn back move, which is improperly marked as a QL-1 despite the recorded time exceeding the requirement for this score. Even



if those tasks had been attempted and successfully demonstrated, the certification record is missing required documentation of the time taken to complete troubleshooting tasks, which makes it impossible (for the WMSC or for Metrorail) to determine whether this individual met the requirements of Metrorail's Performance Standardization Manual for those tasks.

Another road mechanic recorded as not completing any mainline operation tasks except a turn back move is recorded as performing that turn back in 3 minutes, which is precisely the maximum time for a QL-2 score. Any longer and the road mechanic would have failed the certification exam (QL-3). The records incorrectly note this as a QL-1 (highest) score. The individual was also recorded at precisely the maximum permitted time for a QL-1 score for isolation (self-recovery) and the testing documentation does not include the time to complete troubleshooting tasks. Each of these inconsistencies makes it impossible (for the WMSC or for Metrorail) to determine whether this individual met the requirements of Metrorail's Performance Standardization Manual for those tasks that Metrorail did have the individual attempt.

The certification records reviewed for the railcar audit also show that Metrorail certified personnel who were not required to attempt the necessary written testing on Metrorail operational rules and procedures, and who did not have in their possession required documents such as the rule book with them at the time of certification. Records of written tests show that written testing was not consistently administered, with the records showing different road mechanics that did take written tests took different types of written exams. Metrorail's Performance Standardization Program Manual requires all personnel attempting to certify as train operators to take two written exams, in addition to the practical certification exam. Road mechanic records show that many did not take the required exams, and others did not achieve the required scores on exams they did take. Frontline employees are required to score 75%, and supervisors are required to score 85% on each test. Road mechanics were designated as certified who scored below 75% on one test and who did not take the other test. The WMSC's records reviews of other train operator certifications found at least one instance of a recertifying operator who was designated as certified despite not meeting the 75% score requirement on a written test.

Further activities

Metrorail technical training and safety department leadership and the assistant chief safety officer met with the WMSC on October 27, 2023. Metrorail described a plan to transition certification responsibilities sometime in 2024 from the current Rail Transportation Quality Assurance/Quality Control personnel to a new group of personnel that will be hired in the Technical Training and Development division of the Department of Safety and Readiness.

A Metrorail internal review that included a review of Metrorail's certification activities has also identified areas of training and certification in which Metrorail is not following its requirements, including that Metrorail is not consistently completing its certification process as required by its Performance Standardization Program Manual. The internal review also identified that the manual is past due for



review, and confirmed that Metrorail's practical exam records lack consistent documentation, quality controls, and documentation of corrective actions.

Metrorail's initial plan described on October 27, 2023 includes moving to a digital form for practical exam evaluations that would automatically identify entries that showed unacceptable performance, such as taking too long to complete a task, and that would allow easier monitoring of data.

The WMSC provided additional follow-up to Metrorail through February 15, 2024. That week, the WMSC reviewed information related to this order with Metrorail's Chief Safety Officer, provided an opportunity for Metrorail to share additional information, and noted that this order was being finalized.

Metrorail's organizational realignment announced in December 2022, and associated changes, target a shift of responsibility for certification activities to a group reporting to the Chief Safety Officer. This shift has not yet occurred. Metrorail has hired a certification manager and is in the process of hiring 3 certification officers. As part of the review of the Performance Standardization Program Manual to address the internal review findings noted above, Metrorail is aiming to both deliver the revisions and transfer responsibility for certification from the Operations group to the Safety and Readiness group by June 30, 2024.

Separately from this review of certification exam practices, the WMSC also identified during review of certification date records submitted to the WMSC by Metrorail under CAP C-0185 that Metrorail had placed a train operator into service when they were not certified. Their certification had expired, and Metrorail had assigned them to work in a yard and carrying passengers without the required current certification. The WMSC communicated this identified issue to Metrorail, and Metrorail subsequently reported removing that person from service until the person was certified. Metrorail later reported identifying 2 additional operators that it had placed into service after they returned to work from an absence despite not having a current certification, and reported that it would subsequently certify those individuals before allowing them to operate a train again. This included certification exams scheduled February 22 and 23, 2024. Metrorail also stated in February 2024 that it would more generally review and improve its return to duty verifications and associated checks and training.

The WMSC appreciates that Metrorail is beginning work that, if fully implemented, is designed to provide improvements in the long term. However, Metrorail's train operator certifications are valid for two years. Therefore, without action to address those operators who have been designated as certified despite not meeting Metrorail's safety requirements, those operators would be permitted to continue operating for up to two years without proper certification of their competency in safety and operational tasks. Further action is required to ensure Metrorail follows its certification processes, and to ensure that Metrorail only utilizes operators who have demonstrated their ability to provide for the safety of themselves, riders, and other personnel.

750 First St. NE • Ste. 900 • Washington, D.C. 20002



Office: 202-384-1520 • Website: www.wmsc.gov

Conclusion

The WMSC's review identified many examples of Metrorail not following its procedures for certification for train operations that are provided for in its Agency Safety Plan and the associated Performance Standardization Program Manual.

Metrorail is not following its own written requirements to check if its operators have the competencies listed in its safety rules and procedures. Therefore, Metrorail cannot demonstrate that it has certified its train operators in accordance with its safety procedures and standards.

However, Metrorail is still designating train operators as certified despite their certification documents indicating that those individuals did not attempt and successfully complete all of the tasks required for certification that are specifically included in Metrorail's Performance Standardization Program. Among other things, these tasks include specific certification requirements to address deficiencies identified during the investigation of accidents, such as the 2015 fatal smoke accident near L'Enfant Plaza Station. The WMSC's review of train operator certification records, including those records for operators who were not certified in accordance with Metrorail's procedures and were involved in safety events, demonstrates that Metrorail's continued failure to ensure that its operators possess the skills Metrorail requires of them and are competent in those skills could cause or contribute to injury or death. Metrorail must take action to address these safety issues.



Order of the Washington Metrorail Safety Commission

On this day, February 28, 2024, the Washington Metrorail Safety Commission ("WMSC") issues the following order regarding Washington Metropolitan Area Transit Authority ("WMATA") Metrorail noncompliance with its train operator certification requirements.

WHEREAS, the WMSC is the designated State Safety Oversight Agency for the WMATA Rail System, as required by 49 U.S.C. § 5329(e)(3)(C);

WHEREAS, the WMSC's powers are established by the Washington Metrorail Safety Commission Interstate Compact (P.L. 115-54; 131 Stat. 1093) ("WMSC Compact"), passed into law by the Commonwealth of Virginia, State of Maryland, and District of Columbia and approved by Congress;

WHEREAS, among the powers granted to the WMSC under the WMSC Compact is the authority to "require, review, approve, oversee, and enforce the adoption and implementation of any Corrective Action Plans that the Commission deems appropriate" WMSC Compact § 30(c);

WHEREAS, among the powers granted to the WMSC under the WMSC Compact is the authority to "Take such other actions as the Commission may deem appropriate consistent with its purpose and powers." WMSC Compact § 31(f); and

WHEREAS, WMSC Bylaws Art. VI.C.1. and VI.C.6.a authorize the Chief Executive Officer to issue directives to WMATA, and to issue directives to create and implement a corrective action plan and to conduct a hazard analysis

IT IS HEREBY ORDERED that WMATA will:

- Within 30 days of the issuance of this order, complete a review of the certification records of each current Metrorail employee designated as having a current train operator certification, identify those employees whose records do not support such a certification (exceeded time, tasks not attempted, etc.), and provide the WMSC with the results of the review. These results must include, at minimum, the job code and title, certification status, and information present or missing for each employee.
- 2. Within 90 days of the issuance of this order, schedule and properly conduct full certification exams for each of those active employees identified as not having the required certification records. These certifications may begin immediately as Metrorail identifies each employee designated as having a current train operator certification whose records do not support such a certification. Metrorail shall not allow any individual not properly certified as a train operator to work in a role requiring such certification after 91 days after the issuance of this order.



Office: 202-384-1520 • Website: www.wmsc.gov

3. Within 30 days of the issuance of this order, develop corrective action plans in accordance with the requirements of WMSC Program Standard Section 9.C, and subsequently implement the plans, to address the following findings:

Finding 1: Metrorail is not performing its train operator certification activities reliably and consistently in accordance with its safety requirements specified in its Agency Safety Plan and the associated Performance Standardization Program Manual. Therefore, Metrorail is not ensuring that its trains are only operated by personnel who have demonstrated the skills required to do so safely.

Minimum Corrective Action: Metrorail must identify improvements to and implement those improvements to training and qualification processes for personnel responsible for train operator certification activities to ensure that these activities are conducted in accordance with Metrorail's safety requirements. Metrorail must develop and implement internal controls to ensure these certification activities are conducted as required by Metrorail safety procedures to provide assurance that future train operator certification activities will be conducted properly. These controls may include audits of vehicle monitoring system or other data, document review and approval of certification records, supervisory observations of the personnel conducting certifications, and data integrity reviews. For any changes to add, remove, or modify requirements from the Performance Standardization Program Manual, Metrorail must provide the hazard analysis supporting each change.

Finding 2: Metrorail is not conducting retraining of personnel who do not pass certification exams as required by its Performance Standardization Program Manual, and is not consistently retesting these personnel as specified in its safety procedures.

Minimum Corrective Action: Metrorail must establish and implement a process that ensures retraining is provided to each train operator or trainee who fails a certification examination as required by Metrorail procedure, and that each operator or trainee is retested within the specified timeframe.

WMSC Policy for Reconsideration: The WMSC's policy for Reconsideration of WMSC Orders or Directives is provided in Section 11.D of the WMSC Program Standard. This policy is established in accordance with Section 46 of the WMSC Compact.

David L. Mayer Chief Executive Officer Washington Metrorail Safety Commission