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Special Study on Washington Metropolitan Area Transit Authority Metrorail System Rule Compliance Program

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Conducted October 2012

Final Report
June 4, 2013

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Background

As part of its ongoing oversight activities, the Tri-State Oversight Committee (TOC) is responsible for monitoring WMATA Metrorail rule compliance programs. Section 13 of WMATA's System Safety Program Plan (SSPP) relates to the transit agency's rule compliance programs, required by 49 Code of Federal Regulations Part 659.

During the June 2010 Triennial Safety and Security Review of WMATA, the TOC assessed implementation of SSPP Section 13. The review resulted in four findings of non-compliance, including the finding that "the WMATA Blackberry rule compliance program lacks a formal written plan, policy, or procedure guiding its implementation." Since the Triennial Review, WMATA has implemented changes that satisfied the closure of all four findings. These corrective actions included development of the Rail Transportation Rules Compliance Check Procedure, issued earlier in 2012. In light of past incidents caused by rule violations, the TOC sought to assess WMATA's implementation and effectiveness of this new procedure. The TOC also intended to answer questions raised by RAIL Quality Check reports submitted monthly to the TOC.

The TOC interviewed Rail Transportation (RTRA) and Safety Department (SAFE) employees responsible for conducting rule compliance checks, shadowed employees as they demonstrated these checks, and reviewed WMATA documents related to the RTRA rule compliance program. Most activities were conducted the week of October 8, 2012, before WMATA conducted its internal audit of the RTRA department. WMATA had an opportunity to provide comments on the draft version of this report, which has since been revised.

Supervisors

RTRA Supervisors are assigned geographic sectors for their daily duties. Within those sectors, they are responsible for conducting quality checks on Station Managers regarding topics such as station and booth condition, completion of their station inspection logs, and appearance. Supervisors are also assigned a number of Train Operators (about 10) to conduct checks on a variety of categories involving operations and general rules, but they are not limited to observing these employees. Supervisors were observed checking various Operators, and noted that they are encouraged to conduct checks anytime they board trains while en route to a destination. All employees are supposed to receive at least five separate checks per month.

Supervisors enter the results of checks into a Blackberry application. They may assess as few or as many categories as they choose; for each one, they must select satisfactory or unsatisfactory.

Unsatisfactory results are not necessarily rule violations. There is a separate field for rule violations, which initiate an instant e-mail notification to certain RTRA and SAFE managers. Supervisors also note in a separate comments field whether employees were counseled on proper practice for any unsatisfactory observations.

The high number of ongoing rule compliance checks is impressive. There were a few identified areas for which the TOC has recommendations to improve the program:

- **Finding of Non-Compliance #1: Records show that most Train Operators are not receiving the monthly minimum number of checks.** Monthly Rail Quality Check reports tally the number of Train Operators seen less than 5 times versus 5 times or more; the majority of Train Operators are in the former category. In addition, the number of overall observations is very disparate among Train Operators; some have more than 100 observations per month, while others have less than 10. This may be partially due to the discovery noted in the second finding, above. However, numerous Train Operators are unassigned to Supervisors. Supervisors stated that some of their assigned employees may be on other shifts due to recent picks or reassignments. This makes it difficult to check these employees. In addition, recent picks or reassignments sometimes result in employees moving to other sectors and not getting reassigned to Supervisors within those sectors. Currently, Information Technology personnel are working to link the People Soft software with Blackberry checks. PeopleSoft contains WMATA's personnel database and is updated continuously, as opposed to other databases that do not change immediately when employees are hired, terminated, or move locations. This would help when it comes pick time and Train Operators move to other sectors, to ensure that employees are appropriately assigned to Supervisors. This would be essential to establishing credibility and integrity of this program as universally applied and effective.
- **Finding of Non-Compliance #2: WMATA does not appear to be conducting analysis or validation of rule compliance program effectiveness as described in its SOP.** Section 4.9 of the Rule Compliance Check Procedure SOP states that effectiveness of the rule compliance program "shall be evaluated through weekly RTRA weekly staff meetings" to determine whether certain violations are increasing or decreasing. However, TOC attendance at a February 2013 RTRA meeting and discussions with WMATA personnel indicated that rule compliance is not a regular topic of discussion. WMATA should comply with Section 4.9 of its SOP in order to analyze trends and determine potential problems areas of compliance that may need reinforcement.
- **Finding of Compliance with Recommendation #1: Reports of extremely high compliance rates may be inaccurate and affected in part by Supervisor visibility.** TOC reviewers analyzed Blackberry Rail Quality Checks summaries from March and October 2012. They showed an approximately 99.5 percent compliance rate for Train

Operators in all divisions (such as two unsatisfactory observations out of 1,591 in Greenbelt in one month; and 12 out of 2,192 at West Falls Church). Supervisors shadowed during the study were visible to employees being assessed, and interaction often occurred before the check began. Train Operators may be more likely to follow proper rules regarding announcements and door operations when they know a superior is watching their performance. Supervisors noted that other Supervisors sometimes wear plainclothes or wait on the mezzanine to avoid being seen by Train Operators before boarding or while conducting station platform checks. The TOC encourages the use of these and other methods to gain a confident record of rule compliance. WMATA might also consider noting and dividing the results of checks according to whether they were announced or unannounced to the employee being assessed.

- **Finding of Compliance with Recommendation #2: The program does not seem to ensure that a spread of safety-critical rule categories is assessed.** Some observed checks involved just one category, while others involved several. It was noted that Supervisors could simply pass by several Train Operators and click ‘satisfactory’ appearance for all of them, using those as many of their checks for the month. The program could be enhanced by requiring not just a minimum number of checks per month, but a number of checks for certain categories. This would ensure that safety-critical rules are being assessed in addition to customer service-related rules. It may also help to conduct a certain number of special emphasis checks per month in conjunction with the Communiqué – a reminder on rules that is distributed with daily Train Operator manifests.

- **Finding of Compliance with Recommendation #3: Many rule compliance checks appear to have occurred during an extremely short time period.** The TOC received manifests containing basic details of rule checks for some Supervisors; details included time boarded and alighted. The majority of checks appeared to last one or two minutes. It was unclear whether these checks were the result of quick checks occurring on station platforms, or quick ride-alongs between only two consecutive stations. The program may benefit by encouraging Supervisors to ride-along for a minimum number of stations or a minimum amount of time, as well as through a variety of stations (not always between two common or convenient destination points) in order to gain a better understanding of how Train Operators respond to changing situations in a consistent manner along the line.

Superintendents

Superintendents are typically responsible for one Assistant Superintendent, under which there are approximately 10 Supervisors, 70 each of Train Operators and Station Managers, and several Terminal Control and Yard Master personnel. Assistant Superintendents initiate discipline for

employees who have committed rule violations, and the package of information required for disciplinary action was explained.

Section 4.4 of the Rules Compliance Check Procedure notes that weekly field visits for Superintendents should be conducted to document station and equipment conditions and monitor uniform compliance. It is not clear whether these must be formally recorded, or whether a field visit to a single station per week would suffice. It is also not mentioned in the procedure whether Assistant Superintendents should be conducting such weekly field visits. TOC offers the following observations to improve the program:

- **Finding of Compliance with Recommendation #4: The Rules Compliance Check Procedure does not clarify specific responsibilities for Superintendents or Assistant Superintendents.** The procedure and its implementation could be improved if the responsibility for weekly field visits explicitly called for inspections of a certain number of stations or employees. Also, it is not clear if these field visits are intended to duplicate Supervisors' station checks to ensure compliance or intended to elicit more visibility of RTRA management in the field.

- **Finding of Compliance with Recommendation #5: The Rules Compliance Check Procedure does not explain how Supervisor compliance with monthly rule check requirements is enforced.** It would seem that the Supervisors' immediate managers would be responsible for requiring their employees to conduct the monthly minimum number of checks upon Train Operators and Station Managers. It may help to note that Superintendents or Assistant Superintendents are responsible for assessing monthly rule compliance check requirements, if it is desired for those managers to do so.

Rail Operations Control Center (ROCC)

Assistant Superintendents are responsible for completing forms called "ROCC Weekly Compliance Form" for roadway worker protection (RWP) elements and a "ROCC Weekly Communication Quality Control Checklist," both of which are used multiple times per week. The ROCC maintains a spreadsheet that logs all checks performed; the compliance status for each category (yes/no) is noted, with a final calculation of compliance rate. Results are reported during the ROCC Local Safety Committee (LSC), which a safety officer attends. Controllers are either counseled on proper procedure or commended as soon as the audit, typically unannounced, is complete. Rule violations and discipline are typically issued only if the Controller's actions contribute to an incident or otherwise cause a problem. However, ROCC managers do point out to Controllers areas of potential improvement that do not rise to the level of a rule violation. A Controller confirmed that managers do call her in occasionally to review recorded audio and to discuss improvements to her performance.

Section 4.5 of the Rules Compliance Check Procedure outlines a discrete number of annual checks for several safety-critical areas involving ROCC personnel.

An Assistant Superintendent demonstrated how he typically performs rule compliance checks. It appears that the checks cover all important areas. However, it also appeared from discussions that Assistant Superintendents conduct these checks at the busiest times for crews to be entering the ROW, in mid-morning and again in the evening. A review of the rule compliance check log showed that checks were appropriately spread throughout the day. It also appeared that the ROCC was on track to meet its annual requirements for communications and RWP checks.

- **Finding of Compliance with Recommendation #6: Although important checks for RWP and communications rules are frequent and thorough, checks on other procedures outside of track maintenance and inspections are not documented.** The required 12 annual checks are not documented for compliance with procedures regarding suspicious/unattended packages, real-time alarms, and sick customers. It may be important to conduct audits at times other than track shutdowns, so as not to be predictable and also to assess communications during unusual or emergency situations that occur on a daily basis.

Quality Assurance / Quality Control (QA/QC)

An Operations Support Manager oversees four full-time RTRA QA staff as well as nine Utility Supervisors who work for him part-time. In addition to the rule compliance check requirements listed in the procedure (12 each in 4 categories), the group conducts various types of audits throughout RTRA as requested by RTRA, SAFE, or the Deputy General Manager of Operations. They are also responsible for Train Operator certification before initial trainees graduate, recertification rides with existing Train Operators, and the In-Service Evaluations provided every other year. It appears that this group, initiated earlier this year, is an excellent, independent resource for RTRA to conduct accurate and focused audits and rule compliance checks. Supervisors noted that QA/QC personnel sometimes assist them with their own checks.

For rule compliance checks, the Operations Support Manager said his group exceeds the requirements, and that he plans to update the Rules Compliance Check Procedure by year's end to reflect those changes. His staff doubled from 2 to 4 personnel in 2012. The TOC cannot definitively say whether QA/QC personnel are meeting the procedure's requirements, because the procedure does not define a timeframe for the requirements or whether a check involves a single observation of one rule or a full audit of multiple personnel on a rule or set of rules. TOC representatives were told that the requirements are monthly for each employee, but a single hour can involve one audit involving 20 observations on door station servicing.

RTRA QA/QC does not use the Blackberry system, which was created specifically for line Supervisors. QA/QC was exclusively using paper forms, but as of August 2012 began inserting

the information into a SharePoint desktop application and not saving the hard copies any longer. It is unclear if the group's results are reported anywhere unless they are part of a special study or audit at a manager's request, and thus will compile a separate report. The QA/QC Supervisors have the ability to pull an Operator out of service, reinstruct them immediately, or speak with them regarding improvements at a later time.

Station servicing checks were observed being performed inconspicuously, usually without yellow vests. During monthly meetings, QA/QC personnel schedule the location, number and types of checks; however senior staff can change audit schedules. The RTRA QA/QC Corrective Action Request and Internal Auditing Procedures are used as guiding documents. Targeted speed checks are performed when complaints are received. QA/QC also reviews final reports of incident investigations, then decides to increase audit activity in the yard, terminal, station or ROW area. New quality checks are developed and/or recommended as a result of incidents that occur in yards, ROW, stations and terminals.

- **Finding of Compliance with Recommendation #7: As a result of growth within the RTRA QA/QC function, the Rules Compliance Check Procedure is not up-to-date with the current requirements and reporting process.** Revisions of monthly goals were already planned at the time of this review, but it may help to also be explicit in whether each check pertains to an audit of multiple employees or a single observation of one employee (The TOC recommends the former). The procedure should also detail the review of rule check results for trends and corrective action, in relation to the new reporting ability on PeopleSoft.

SAFE

Although this study was focused on the implementation of RTRA's procedure, the TOC also discussed SAFE personnel interface with the RTRA program and SAFE's own rule compliance checks. SAFE reviewed and provided feedback on the Rule Compliance Check Procedure, working directly with RTRA. In addition to the procedure, SAFE personnel described a very strong working relationship with RTRA managers, including Superintendents at every operations reporting location. The relationship is such that RTRA managers have reached out to SAFE to provide input into recent rule compliance issues such as red signal violations and wrong-side door openings. In addition to the less formal interface, SAFE generally finds out about rule compliance issues through LSCs, the Safety Hotline (which is now an anonymous reporting system on the WMATA intranet), their own rule compliance checks in the field, and the Safety Measurement System (SMS). Issues related to rule compliance are discussed as needed at the Executive Safety Committee (ESC) meetings, where the RTRA Managing Director is a regular attendee.

The SMS seems to be an effective way for SAFE to find out about rule violations that are not immediately or directly reported to SAFE. ROCC controllers and Maintenance Operations

Control personnel will enter violations such as station overruns into MAXIMO; if they check a box linking the item to a rule violation, then the item is added automatically to SMS, and SAFE personnel are flagged.

SAFE's own rule compliance check program is a work in progress and was slightly reformed earlier in 2012. SAFE recently began requiring five on-board rule compliance checks per officer per week. Also, just before this review, one SAFE manager developed a Monthly Report form to be completed for each Safety Officer; the Officer will report on this form the number of checks performed in various categories and attach the relevant forms. SAFE has its own focused forms in areas of yard safety, ride-ons, RWP, and door operations. SAFE generally does not discipline or reinstruct employees who violate operating rules unless something egregious happens; what happens most often is that SAFE simply provides the information to RTRA for their internal usage in determining everything from employee discipline, to changes to training and instruction programs as needed. TOC appreciates the fact that SAFE conducts its own independent evaluations of rules compliance and supports the strengthening of the program with these observations.

- **Finding of Compliance with Recommendation #8: Forms are focused and detailed, but do not appear to be filled out consistently with all needed information.** The TOC looked at some forms that left sections blank; also, it was not clear whether an "X" denotes satisfactory compliance or that the Officer simply checked that particular rule. Some forms called for 1-5 ratings, but checkmarks were used. The forms would be enhanced if they were standardized and included an "N/A" column, as well as a space to note any corrective action taken and whether the check was announced or hidden to the employee being evaluated.
- **Finding of Compliance with Recommendation #9: It is not clear in the RTRA Rules Compliance Check Procedure how SAFE provides "additional support" as a result of rule violations.** The procedure calls for Supervisors to interface directly with SAFE, but it was not clear how this should work or what support SAFE would provide. Those interviewed within RTRA and SAFE were also not clear what this provision should mean, even though both departments were aware of the others' activities. It may be helpful to clarify this section of the procedure with details.

Conclusion

Overall, the TOC was impressed with the volume of rule compliance evaluations happening at various levels of the organization. Added layers of assessments from groups more independent than direct Supervisors, such as RTRA QA/QC and SAFE personnel, provide strong support to the program. While this study found some areas of non-compliance with the procedure, none are major findings that pose an immediate threat to the safety of the Metrorail system. The TOC provides this report's specific and focused findings and recommendations to ensure full

implementation of the RTRA written procedure and to help strengthen safety-critical rules compliance at WMATA.

The TOC requires that WMATA respond with Corrective Action Plans (CAPs) to each of this report's two Findings of Non-Compliance in accordance with the TOC Program Standard and Procedures. The TOC also strongly encourages WMATA to respond with CAPs to address the nine Findings of Compliance with Recommendation to enhance the safety of its system, though in some cases it may be acceptable to provide rationale for not addressing a recommendation. TOC representatives sincerely thank RTRA and SAFE personnel for their cooperation and openness throughout this special study. The TOC believes that WMATA's responsiveness to this study's observations and recommendations will greatly benefit the safety of passengers and employees on the Metrorail system.

Summary of Findings

This review identified two Findings of Non-Compliance and nine Findings of Compliance with Recommendation, explained throughout this report:

Finding of Non-Compliance #1: Records show that most Train Operators are not receiving the monthly minimum number of checks.

Finding of Non-Compliance #2: WMATA does not appear to be conducting analysis or validation of rule compliance program effectiveness as described in its SOP.

Finding of Compliance with Recommendation #1: Reports of extremely high compliance rates may be inaccurate and affected in part by Supervisor visibility.

Finding of Compliance with Recommendation #2: The program does not seem to ensure that a spread of safety-critical rule categories is assessed.

Finding of Compliance with Recommendation #3: Many rule compliance checks appear to have occurred during an extremely short time period.

Finding of Compliance with Recommendation #4: The Rules Compliance Check Procedure does not clarify specific responsibilities for Superintendents or Assistant Superintendents.

Finding of Compliance with Recommendation #5: The Rules Compliance Check Procedure does not explain how Supervisor compliance with monthly rule check requirements is enforced.

Finding of Compliance with Recommendation #6: Although important checks for RWP and communications rules are frequent and thorough, checks on other procedures outside of track maintenance and inspections are not documented.

Finding of Compliance with Recommendation #7: As a result of growth within the RTRA QA/QC function, the Rules Compliance Check Procedure is not up-to-date with the current requirements and reporting process.

Finding of Compliance with Recommendation #8: Forms are focused and detailed, but do not appear to be filled out consistently with all needed information.

Finding of Compliance with Recommendation #9: It is not clear in the RTRA Rules Compliance Check Procedure how SAFE provides “additional support” as a result of rule violations.