



Washington Metropolitan Area Transit Authority (WMATA)

Safety Directive 17-1 - Traction Power Electrification Investigation Tracker

All CAPs in this Directive were **closed** as of 09/16/22

Corrective Action Plan (CAP) Summary			
Total	Submitted (✓)		Open (●)
	Closed	Under Review <sup>1</sup>	
17	17	0	0

<sup>1</sup> Under Review status includes items that were submitted to FTA for review and closure, and items that were returned by FTA to address additional comments.

Risk Assessment Category and Description with CAP Totals			
I	II	III	IV
Unacceptable	Undesirable - ESC* Decision Required	Acceptable with ESC* Review	Acceptable without ESC* Review
Submitted: 0   Open: 0	Submitted: 10   Open: 0	Submitted: 4   Open: 0	Submitted: 3   Open: 0

\* ESC - Executive Safety Committee

CAP Number	Risk Assessment	Closure Submission Date**	CAP Status	Actionable Item Status
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\*\*Date WMATA requests closure. Actual closure date is subject to FTA review and acceptance of the closure.

Traction Power System	<div><div></div></div> <div>0%50%100%</div>	100%
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FTA-17-1-1	II	February 2019	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must conduct an assessment to determine the management responsibility for all TPE system components and implement the results.</p> <ul style="list-style-type: none"><li>✓ WMATA provided an assessment of TPE System Responsibility.</li><li>✓ WMATA created dedicated third rail inspection and maintenance groups.</li><li>✓ Finally, WMATA performed a quality assurance audit of actionable items.</li></ul>					
FTA-17-1-2	II	September 2017	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must update traction power procedures to de-energize the third rail in smoke conditions and provide TPE system awareness training to ROCC personnel.</p> <ul style="list-style-type: none"><li>✓ WMATA identified existing ambiguous language and complete a hazard analysis of the SOP.</li><li>✓ WMATA updated training module for ROCC personnel and provide a training schedule.</li><li>✓ Finally, WMATA performed a quality assurance audit of actionable items.</li></ul>					
FTA-17-1-3	III	April 2019	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must conduct an updated workload assessment and develop a 5-year staffing plan, evaluating the use of contractors to address maintenance backlog.</p> <ul style="list-style-type: none"><li>✓ WMATA performed a workload assessment and 5-year staffing plan.</li><li>✓ WMATA provided an implementation plan for staffing plan.</li><li>✓ Finally, WMATA performed a quality assurance audit of actionable items.</li></ul>					
FTA-17-1-4	II	December 2018	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must establish &amp; implement an inspection, testing, maintenance, and repair program for its floating slab track, running insulation &amp; sacrificial anodes.</p> <ul style="list-style-type: none"><li>✓ WMATA established a stray current testing program.</li><li>✓ WMATA established and implement an inspection process for bonding on floating slabs.</li><li>✓ Finally, WMATA performed a quality assurance audit of actionable items.</li></ul>					
FTA-17-1-5	II	January 2019	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must establish criteria for its fastener replacement program to improve insulation resistance.</p> <ul style="list-style-type: none"><li>✓ WMATA developed fastener replacement program criteria.</li><li>✓ WMATA submitted production reports showing fastener replacement.</li><li>✓ Finally, WMATA performed a quality assurance audit of actionable items.</li></ul>					
FTA-17-1-6	II	January 2020	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must develop &amp; implement a third rail grout pad replacement program for supporting insulators.</p> <ul style="list-style-type: none"><li>✓ WMATA developed a formal process for grout pad replacement.</li><li>✓ WMATA submitted production reports showing grout pad replacement.</li><li>✓ WMATA confirmed there was reasonable evidence to support completion of actionable items and performance measures.</li></ul>					
FTA-17-1-7	II	October 2019	Closed	<div><div></div></div> <div>0%50%100%</div>	100%
<p>WMATA must update design specifications for third rail insulators and establish/update procedures for testing, storage, install., inspect., cleaning, &amp; replacement.</p> <ul style="list-style-type: none"><li>✓ WMATA tested new insulator product designs for future implementation.</li><li>✓ WMATA updated insulator design specifications and developed work instructions for insulator installation and cleaning.</li><li>✓ WMATA established a receiving inspection plan for insulators.</li><li>✓ WMATA confirmed there was reasonable evidence to support completion of actionable items and performance measures.</li></ul>					

CAP Number	Risk Assessment	Closure Submission Date**	CAP Status	Actionable Item Status
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\*\*Date WMATA requests closure. Actual closure date is subject to FTA review and acceptance of the closure.

FTA-17-1-8	IV	June 2017	Closed		100%
WMATA must explain the original intent of replacement program, define the rationale for stopping the program, & clarify intentions to re-instate this program. <div>√ WMATA provided a written explanation of the plan and the path forward.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-9	III	August 2018	Closed		100%
WMATA must evaluate current third rail cover board design for adherence to NFPA 130 standards and provide FWSO with schedule for cover board replacement in tunnel segments. <div>√ WMATA provided third rail cover board specifications to demonstrate NFPA 130 compliance.</div> <div>√ WMATA established cover board replacement process and provide a maintenance plan.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-10	II	July 2022	Closed		100%
WMATA must conduct an assessment of third rail cable terminations, implement program to secure cables off the ground, re-instate primary & secondary cable replacement program for 100% 8-car operations, and provide explanation for suspension of the expansion joint elimination program. <div>√ WMATA provided cable maintenance and replacement programs.</div> <div>√ WMATA reviewed alternate power cable connections.</div> <div>√ WMATA developed engineering modifications based on review and update standard drawings.</div> <div>√ WMATA provided explanation for suspension of the expansion joint elimination program.</div> <div>√ WMATA confirmed there is reasonable evidence to support completion of actionable items and performance measures.</div>					
FTA-17-1-11	II	January 2019	Closed		100%
WMATA must develop and implement processes for the cleaning and testing of third rail cables. <div>√ WMATA developed a third-rail jumper cable inspection and replacement plan.</div> <div>√ WMATA updated the cable meggering process.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-12	IV	October 2019	Closed		100%
WMATA must perform a cost benefit analysis with regard to repairing or replacing the out-of-service vacuum vehicle and implement the results. <div>√ WMATA provided a Vacuum Vehicle In-Service Report.</div> <div>√ WMATA developed a tunnel cleaning plan.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-13	II	May 2020	Closed		100%
WMATA must evaluate traction power circuitry and relay settings, conduct testing, develop methods for condition assessment of components based and implement on results. <div>√ WMATA evaluated current TPE system relay settings.</div> <div>√ WMATA updated and verified relay setting based on evaluation results.</div> <div>√ WMATA performed a transfer trip analysis of traction power circuit breakers.</div> <div>√ WMATA confirmed there was reasonable evidence to support completion of actionable items and performance measures.</div>					
FTA-17-1-14	II	August 2019	Closed		100%
WMATA must implement a program of stray current & corrosion controls testing which should include track to earth electrical isolation, track to earth voltage etc. <div>√ WMATA established a corrosion control program.</div> <div>√ WMATA developed methods to remedy defects identified in corrosion control testing.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-15	III	July 2019	Closed		100%
WMATA must establish grading criteria for TPE system components and develop procedures for the use of thermal imaging and TGV data for inspection and analysis. <div>√ WMATA established methods to capture thermal imaging of traction power components and is setting grading criteria.</div> <div>√ WMATA established methods to overlay TGV data with track inspection information.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					
FTA-17-1-16	IV	May 2021	Closed		100%
WMATA must document negative return system defects in the maintenance and repair trouble ticket system (Maximo) and assign responsibility for timely repairs. <div>√ WMATA developed a Maximo asset structure for TPE components.</div> <div>√ WMATA established methods to monitor negative defects in Maximo.</div> <div>√ WMATA confirmed there was reasonable evidence to support completion of actionable items and performance measures.</div>					
FTA-17-1-17	II	July 2019	Closed		100%
WMATA must establish clear responsibility for installation, inspection and repair of negative return components, setting requirements for the use of bolted connections versus clamps. <div>√ WMATA evaluated negative bonding connections and developed updated installation instructions.</div> <div>√ WMATA updated training to technicians on updated instructions.</div> <div>√ WMATA developed inspection and maintenance processes for negative bonding connections.</div> <div>√ Finally, WMATA performed a quality assurance audit of actionable items.</div>					