

November 4, 2021



David Mayer  
Chief Executive Officer  
Washington Metrorail Safety Commission  
750 First Street, NE, Suite 900  
Washington, DC 20002

Re: WMSC Order Regarding WMATA 7000 Series Equipment

Dear Dr. Mayer,

Pursuant to the October 17, 2021 order from the WMSC directing Metro to remove all 7000 series trains from service, WMATA advises the WMSC of its intent to satisfy parts 2 and 3 as follows:

WMATA submits a test plan and associated attachments with this letter. The objective of the test plan is to establish the correct data-driven inspection interval for 7000 series trains.

WMATA has conducted a preliminary analysis of the measurements of 20 wheelsets identified as nonconforming in the fleet-wide special inspection of back-to-back distances. Assuming a linear rate of movement, this analysis permitted derivation of a calculated value of the maximum daily movement of wheelsets observed among the 20 wheelsets. This value is believed to serve as a reasonable worst case for estimating purposes. Based upon this calculation, an interval of 10 days is believed to represent the reasonable worst-case wheel movement rate that would result in nonconformance with specifications. Metro added a 20% factor of safety to this rate to arrive at a proposed inspection interval of every eight days per wheelset.

The calculation of this rate, which is integral to the establishment of an inspection interval, required a number of critical assumptions that require validation. To that end, Metro is proposing to conduct testing of two exemplar trainsets under simulated service conditions to confirm the calculated values align with real-time observations of wheelset movement rates. The test plan contains those assumptions and calculations for WMSC review.

Metro intends to conduct testing for no less than 12 days, which is 50% beyond the proposed worst-case inspection interval. Upon completion of the testing, Metro will compile a test report which analyzes the data and observations collected.

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Maryland and Virginia  
Transit Partnership*

Should the testing affirm the calculations supporting the establishment of the aforementioned inspection interval, Metro will proceed to incorporate that interval into the final inspection plan for submittal to the WMSC. In the event testing indicates a need to reduce the interval, Metro will adjust the proposed plan accordingly.

After the test is complete, the final plan for inspection will include the following elements:

- The proposed interval for inspections supported by calculated values and the completed test report
- The inspection process for taking back-to-back measurements
- The process for independent oversight of inspections
- The process for securing non-conforming equipment

For this critical first step, WMATA submits the test plan and associated attachments for WMSC review and acceptance.

We thank the WMSC for your feedback and look forward to continued communication regarding our efforts to return the 7000 series to service and improve the safety of the system.

Please contact me directly with any questions or concerns.

Kind Regards,

Theresa M. Impastato  
Executive Vice President  
and Chief Safety Officer