OIG: New Acela program will likely face future delays due to challenges meeting safety requirements, fixing trainset defects

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WASHINGTON – Amtrak's New Acela program will likely face future delays and cost increases because the vendor's trainset designs have not yet met federal safety requirements and each of the trainsets the vendor has produced has defects that the vendor is required to fix or modify before the company launches revenue service, according to an Amtrak Office of Inspector General report released today.

While the report credits Amtrak for making recent improvements to the New Acela program's management, the program is more than three years behind schedule, and current delays have already resulted in significant cost increases, operational impacts, and delayed revenue, and any further schedule slippage would exacerbate these impacts.

In August 2016, Amtrak signed a contract with Alstom, the New Acela vendor, to produce 28 new high-speed trainsets. As of July 2023, the vendor had produced 12 of 28 serial trainsets and 22 of 28 café cars. Amtrak has not accepted any trainsets from the vendor as of August 2023, the report said.

According to the report, the most likely cause of additional future delays is the continued inability to produce a validated computer model of the trainset—the first step in a multi-step regulatory process that shows the trainset is safe to proceed with additional testing. Predictions of trainset performance from the computer model must be submitted to the Federal Railroad Administration as part of the qualification testing plan before it will allow the trainsets to proceed with additional operational testing. While Amtrak must submit these predictions to the FRA, the vendor is responsible for developing and validating the model.

In addition, the vendor has built more than half of all New Acela trainset units without a finalized design, which poses a risk because unanticipated design changes uncovered during model validation will need to be retrofitted onto the already-produced serial trainsets.

The report also notes that, of the 12 serial trainsets and 22 café cars the vendor has produced, all have defects. Some defects are safety related, such as water drainage between cars causing components that hold the cars together to corrode. Others are described as functional. For example, the vendor previously reported that five windows on the trains shattered spontaneously and that the trainsets' hydraulic tilting systems leaked. A final category of defects deals with aesthetic issues, such as misaligned ceiling panels in the café cars and delamination of their floors.

While some defects are expected when producing a new trainset, the OIG found that the vendor's schedule for addressing them is incomplete, which creates a secondary risk to the overall program schedule. Without more complete information, Amtrak cannot verify whether remediating the defects will impact the overall program schedule and revenue service launch.

The issues the OIG identified on New Acela are similar to challenges that have occurred on other Amtrak rolling stock acquisitions, according to the report. With Amtrak planning a multi-billion dollar program to replace its fleet of long-distance trains while it is also engaged in the ongoing process of replacing its intercity trains, the OIG recommended that Amtrak 1) enhance its process to formally capture and incorporate lessons learned from New Acela and other rolling stock purchases, 2) direct the vendor to provide complete and accurate schedules to address defects, and 3) work with the vendor to identify the risk of future defects.

More information is included in the full report, which can be downloaded on the OIG's website: https://direc.to/jGCH.

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