



DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Docket Number FRA-2023-0066]

Petition for Waivers of Compliance

Under part 211 of title 49 Code of Federal Regulations (CFR), this document provides the public notice that on August 10, 2023, Georgia Central Railway, L.P. and Heart of Georgia Railroad, Inc. (Petitioners) submitted a request to the Federal Railroad Administration (FRA) under 49 CFR 211.51 for approval of a test program, and the temporary suspension of certain FRA safety regulations in connection with that program (Program). Petitioners explain that the proposed test program involves a system of a “novel, self-propelled, zero-emission, battery-electric rail vehicle” (Vehicle) and its associated computer and telemetry technology (System), manufactured by Parallel Systems, Inc. Petitioners state that the goal of the technology is to provide smaller freight railroads an opportunity to meaningfully compete in the short-haul transportation of containers, and the technology also provides “numerous public benefits for the environment, the economy, the national highway system, and communities disproportionately impacted by highway movement of containers.” Petitioners contend that “safety is an overriding focus of the proposed program” and the Pilot Test Safety Plan is included in Exhibit C of the submission. Petitioners state that the Program is “designed to evaluate the effectiveness of the system and new operational approaches to rail vehicle technology in the short-haul movement of containers.”

FRA has conducted a preliminary review of Petitioner’s application to determine whether it meets the minimum regulatory requirements and provides enough information to be actionable by FRA, and FRA has found the application complete. However, upon analyzing the request, FRA has decided to treat Petitioners’ application as a request for

waivers of compliance under the relevant provisions of 49 CFR part 211. FRA will also review Petitioners’ request for a test program under 49 CFR 211.51.

FRA assigned the petition Docket Number FRA-2023-0066. A copy of the petition, as well as any written communications concerning the petition, is available for review online at www.regulations.gov.

Petitioners assert that suspending (waiving) certain provisions of the Federal railroad safety regulations is necessary for the conduct of the Program, and, accordingly, Petitioners request that FRA temporarily suspend certain provisions of the CFR throughout the Program. Specifically, petitioners request relief from specific regulatory requirements during each phase of testing, as listed in the table below:

SUMMARY OF REGULATORY RELIEF REQUESTED

Reference	Regulation Summary	Basis for Relief	Petitioner Comments
Part 218, subpart D	Operating Practices - Prohibition Against Tampering with Safety Devices: §§ 218.55-59 prohibit disabling of safety devices or knowingly operating a train with disabled safety devices.	In order to support testing of certain features of the System, some Program procedures will require installing, removing, disabling, and bypassing onboard sensors, self-diagnostic devices, and other devices of the Vehicles.	Alternative safety protections designed to mitigate the risks associated with the disabled functions will remain operative even if safety devices on the Vehicles are disabled. The petitioner’s safety plan (Safety Plan) is included as Appendix A to the petition.
Part 229	Locomotive Safety Standards - multiple provisions of part 229 require suspension given the unique design of the Vehicle and the braking system:	In summary, the following design features of the System and characteristics of the Program are directly related to the part 229 temporary suspension requests: <ul style="list-style-type: none"> -Remotely Directed Operation -Platooning Capability -Alternative Braking Technology 	For those aspects of the requested part 229 temporary suspensions that are not predicated on the absence of conventional features due to remotely directed operation, the platooning capability or the alternate braking technology of the Vehicle, the procedures and the System design and operational features explained in the Safety Plan will assure safety.

Reference	Regulation Summary	Basis for Relief	Petitioner Comments
	229.9, Movement of Non-Complying Locomotives: § 229.9(a)(3).	The provision requires tagging of the locomotive at certain locations. This Vehicle does not have a locomotive cab.	The Vehicle will be tagged on the low voltage isolation switch, which controls power to the Vehicle computers.
	229.13, Control of Locomotives: § 229.13.	The provision includes requirements when multiple locomotives are coupled. This Vehicle does not couple.	Safety Plan sections 2.7 and 5.4 describe the safety features of the platooning technology that offer an alternative safety standard to traditional coupling, brake, and lead locomotive systems.
	229.15, Locomotives with Control Units: § 229.15(a)(10).	This provision requires locomotives with radio control units to be designed with specific self-diagnostics.	This Vehicle has designed integrity-monitoring features described in Safety Plan section 5.2 and these features are part of the test program.
	229.29, Air Brake System Calibration, Maintenance and Testing: § 229.29.	This provision defines the calibration, maintenance, and testing of locomotive braking systems.	Safety Plan section 5.6 describes the maintenance, calibration, and testing of the brake technology that the Vehicles will feature. These features are part of the test program.
	229.47, Emergency Brake Valves: § 229.47	This provision states that the brake pipe valve must be accessible to members of the crew in the cab other than the engineer and must be attached to a wall adjacent to an end exit door. This Vehicle does not have a locomotive cab.	Safety Plan section 4.2 describes the emergency-stop function of the Vehicles. These features are part of the test program.
	229.53, Brake Gauges: § 229.53	This provision requires all gauges and indicators to be located so the engineer can conveniently read them in the locomotive cab. This Vehicle does not have a cab.	Monitoring associated with movement of the Vehicle is available on the devices used to control movements. These features are part of the test program.

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	229.55, Piston Travel: § 229.55(b)	This provision includes requirements of the brake cylinder. This Vehicle includes alternative braking technology.	The Program will evaluate the effectiveness of different brake technology than what is present on conventional locomotives.
	229.71, Clearance Above Top of Rail: § 229.71	This provision prohibits any part or appliance to be less than 2.5 inches above the top of rail.	The Vehicle will comply with § 229.71 except that if test data indicates that the Vehicle does not reliably activate track circuits by shunting, electrical rail contacts may be added less than 2.5 inches above the top of rail to improve shunting performance for the testing program.
	229.115(a), (c), Slip/Side Alarms: § 229.115(a) and (c)	This provision requires audible and visual alarms in the cab if wheels slip or slide. This Vehicle does not have a cab.	Monitoring associated with movement of the Vehicle is available on the devices used to control movements. These features are part of the test program.
	229.117, Speed Indicators: § 229.117	This provision requires the locomotive speed to be readable from the engineer's normal position. This Vehicle does not have a cab.	Monitoring associated with movement of the Vehicle is available on the devices used to control movements. These features are part of the test program.
	229.119, Cabs, Floors, and Passageways: §§ 229.119 and 229.127, Cab Lights: § 229.127.	This provision sets requirements for locomotive cabs, floors, passageways.	This Vehicle does not have a cab.

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	229.131(a), Sanders: § 229.131(a)	This provision requires each locomotive to be equipped with operative sanders. This Vehicle includes alternative braking technology.	The Program will evaluate the effectiveness of different brake technology than what is present on conventional locomotives, including testing of wheel slip and slide.
	229.137, Sanitation, General Requirements and 229.139, Sanitation, Servicing Requirements	These provisions are premised upon having a locomotive cab.	This Vehicle does not have a cab.
	229.141, Body Structure, MU Locomotives: § 229.141	These provisions are premised upon the MU locomotive cars being coupled together. This Vehicle does not couple.	Safety Plan sections 2.7 and 5.4 describe the safety features of the platooning technology that offer an alternative safety standard to traditional coupling, brake, and lead locomotive systems.
	Part 229, subpart D, Locomotive Crashworthiness Design Requirements: §§ 229.201-206	These provisions are premised upon having a locomotive cab.	This vehicle does not have a cab.
	229.311, Review of Locomotive Electronics Safety Analysis Before Use: §§ 229.301-319	Petitioner seeks temporary suspension of the 60-day notice requirement and will provide details throughout the testing program.	Petitioner will comply with the rest of part 229, subpart E, including being subject to FRA's authority to audit the safety analysis any time after the System is placed in use under the Program.

Reference	Regulation Summary	Basis for Relief	Petitioner Comments
Part 231	Railroad Safety Appliance Standards – -§ 231.6(a), Handbrakes, -§ 231.6(d), End Handholds, -§ 231.6(e), Uncoupling Levers.	These provisions that detail the placement and design of safety appliance equipment are not applicable to this alternative Vehicle design.	This temporary suspension request is predicated on the fact that the Vehicles will not have and do not need ladders, running boards or drawbars.
Part 232	Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment; End-of-Train Devices -232.103(f), (g), (j), (k), (l), (m), (n), (o), General Requirements for All Train Brake Systems -232.205–212, Brake Tests -232.215, Transfer Train Brake Tests -232.303, General Requirements (for periodic maintenance) -232.305, Single Car Air Brake Tests -232, subpart E, End-of-Train Devices -232.503, Process to Introduce New Brake System Technology -232.505, Pre-Revenue Service Acceptance Testing Plan	Certain design features of the Vehicle, including its platooning capability and alternative braking technology, are drivers of the part 232 temporary suspension requests. The Vehicles will not be coupled, and the Program will test a novel braking technology that is different than air brakes and evaluate the effectiveness of the self-monitoring capabilities of the Vehicles. The testing program includes extensive testing of the new brake system technology and will be iterative. FRA test monitoring will review the results of testing as the testing progresses through the various stages.	The Petitioner will conduct inspections and tests that are functionally similar to the requirements of part 232. Analogous functional features of the novel braking technology will be inspected and tested, but inspections and tests will reference components and metrics that are relevant to the design of the novel brake technology.

Reference	Regulation Summary	Basis for Relief	Petitioner Comments
Part 236	Rules, Standards, and Instructions Governing the Installation, Inspection, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances, § 236.913 Product Safety Plan for Processor-Based Signal and Train Control Systems	This testing will be performed in dark territory under track warrant control. Special test provisions will be in place to protect the testing. The Vehicle is not equipped with a traditional train control system.	Future development of this Vehicle will likely include interface between the locomotive electronics and a signal and train control system.
Parts 240 and 242	Qualification and Certification of Engineers and Conductors -240.103 and 242.103 Approval of Design of Individual Railroad Programs by FRA	The remotely directed operation of the Vehicle alters the traditional role and requirements of Engineers and Conductors. This test program will be used to determine the qualification and certification requirements for Engineers and Conductors operating a Vehicle by remotely directed operation.	This testing will be performed by trained testing professionals following the test program and Safety Plan. The test program will be supported by qualified and certified Georgia Central Railway and Heart of Georgia Railroad Engineers and Conductors.

Recognizing that 49 CFR part 231 involves compliance with certain statutory requirements, Petitioners also request that FRA exercise its authority under 49 U.S.C. 20306 to exempt the rail equipment involved in the Program from the requirements of 49 U.S.C. 20302, which, in part, requires rail equipment to be equipped with certain safety appliances (e.g., couplers, sill steps, hand brakes, grab irons, hand appliances, and power brakes). In accordance with 49 U.S.C. 20306, FRA may exempt Petitioners from these statutory requirements based on evidence received and findings developed at a hearing demonstrating that the statutory requirements “preclude the development or implementation of more efficient railroad transportation equipment or other

transportation innovations under existing law”¹ or an “agreement between national railroad labor representatives and the developer of the new equipment or technology.”²

FRA views the petition as consisting of (1) a request for the temporary suspension of certain FRA regulations or waivers of compliance, and (2) a request for approval of a centralized test program that would utilize that requested relief. FRA intends to review Petitioners’ requests for temporary suspension of the above-listed regulatory requirements as petitions for waivers of compliance pursuant to 49 CFR part 211, subpart C. FRA will also review the proposed test program under 49 CFR 211.51 and will address its evaluation of the test program in a separate decision after it completes its review of the requested waivers.

Interested parties are invited to participate in these proceedings by submitting written views, data, or comments relating to the Program, the temporary waiver of regulations, or both. If any interested party desires an opportunity for oral comment and a public hearing, they should notify FRA, in writing, before the end of the comment period and specify the basis for their request. In addition, absent an agreement under 49 U.S.C. 20306(b)(2), FRA will hold a hearing on Petitioners’ application and notice of such hearing will be published at a later date.

All communications concerning these proceedings should identify Docket Number FRA-2023-0066 and may be submitted at www.regulations.gov, and follow the online instructions for submitting comments.

Communications received by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** will be considered by FRA before final action is taken. Comments received after that date will be considered if practicable.

Anyone can search the electronic form of any written communications and

¹ 49 U.S.C. 20306(a).

² *Id.* at (b)(2).

comments received into any of our dockets by the name of the individual submitting the comment (or signing the document, if submitted on behalf of an association, business, labor union, etc.). Under 5 U.S.C. 553(c), the U.S. Department of Transportation (DOT) solicits comments from the public to better inform its processes. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <https://www.transportation.gov/privacy>. See also <https://www.regulations.gov/privacy-notice> for the privacy notice of www.regulations.gov.

Issued in Washington, DC.

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