



U.S. Department
of Transportation
Federal Railroad Administration

West Building, W35-322
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

FRA-AIP 202501

REVIEW DATE: January 30, 2030

1. GRANTEE:

The Greenbrier Companies
One Centerpoint Drive
Lake Oswego, Oregon 97034

2. PURPOSE AND LIMITATION:

a. This approval authorizes the use of an Alternative Inspection and Test Program (AIP) as allowed by 49 CFR § 180.509(1) *Alternative inspection and test procedures*. This letter provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The damage-tolerance analysis or service reliability assessment performed in the development of this AIP only considered the hazards and risks associated with transportation in commerce.

c. This approval to use an AIP is non-transferrable.

3. REGULATIONS AFFECTED: 49 CFR § 180.509(e) (1).

4. BASIS: This approval is based on the August 2, 2024, application of Greenbrier Management Services, Inc (GBRX).

5. INSPECTION AND TEST PROCEDURES:

a. DEFINITIONS:

1. Service Reliability Assessment - the process, using in-service data, to determine the time a tank car or component will continue to function as designed under specified conditions.

2. Tank Car Owner - the person to whom a rail car's

reporting marks are assigned, as listed in the Universal Machine Language Equipment Register (UMLER).

3. Damage-Tolerance Analysis - Determination of the probable locations and modes of damage due to manufacturing, fatigue, corrosion or accidental damage. The analysis must establish a period of time/load cycles during which it is demonstrated that widespread fatigue or corrosion damage will not occur in the tank car structure.

b. BENCHMARK TESTING: All GBRX tank cars covered by this approval must have initial structural integrity weld inspections of the welds listed in § 6(a) taken at time of manufacture. For tank cars lacking these inspections, they must be taken at time of next qualification.

c. DESIGN LEVEL OF RELIABILITY AND SAFETY: GBRX must ensure that any detected weld flaws do not decrease the design level of reliability and safety.

d. SENSITIVITY and RELIABILITY: For tank car structural integrity weld inspections listed in § 6(a), GBRX must determine the level of reliability, sensitivity, and minimum detectable flaw size for the proposed inspection method at the listed inspection sites.

e. CONTROL: GBRX must perform structural integrity weld inspections for the welds listed in § 6(a) (GUN 001 Data Collection Template (rev 11/19/2014)) using an approved Non-Destructive Testing (NDT) method (Liquid Penetrant (PT) or Magnetic Particle (MT)) on a representative sample of the fleet covered by this AIP approval. GBRX must perform structural integrity weld inspections of tank shell butt welds within 60.96 cm (2 feet) of the bottom longitudinal centerline using an approved NDT method on a representative sample of the fleet covered by this AIP approval. The frequency of these tests must be based on the identified corrosion rate, utilization, and other factors to maintain the design level of reliability and safety and must not exceed the maximum interval prescribed in 49 CFR § 180.509(c). The inspection and test records of the foregoing must be made available to FRA upon request. The sample size must be in accordance with recognized industry sampling standards. Weld inspection procedures must include provisions on cleaning the welds for inspection. Cars in

the sample fleet are provided no relief by this approval.

6. REGULATORY RELIEF:

a. For the welds listed below, the initial structural integrity inspection interval is extended to 15 years from the date of construction, with subsequent inspections at 10-year intervals:

GUN 001 underframe:

- o TCID A1 outboard sill pad-to-tank transverse weld
- o TCID A2 outboard Sill to pad longitudinal weld.
- o TCID A3 fillet weld in outboard sill pad-to tank cutout
- o TCID A4 sill pad longitudinal weld-outboard termination
- o TCID A6 inboard termination of sill pad weld
- o TCID A11 inboard sill pad-to-tank transverse weld
- o TCID E2 reinforcement bars (skid pad) to tank longitudinal weld.
- o TCID G1 interior BOV saddle to tank transverse weld
- o TCID G1 exterior BOV saddle to tank transverse weld
- o TCID G2 interior BOV saddle to tank longitudinal weld
- o TCID G2 exterior BOV saddle to tank longitudinal weld
- o TCID G1 interior sump to tank transverse weld
- o TCID G1 exterior sump to tank transverse weld
- o TCID G2 interior sump to tank longitudinal weld
- o TCID G2 exterior sump to tank longitudinal weld
- o TCID E1 brake cylinder bracket pad to tank transverse weld
- o TCID E2 brake cylinder bracket pad to tank longitudinal weld
- o TCID E1 fulcrum lever bracket pad to tank transverse weld
- o TCID E2 fulcrum lever bracket pad to tank longitudinal weld

b. The requirement for structural integrity inspection

and test of tank shell butt welds within 60.96 cm (2 feet) of the bottom longitudinal centerline is waived except as required in § 5(e).

7. SPECIAL PROVISIONS:

a. A person who is not a holder of this AIP approval who receives a package covered by this AIP approval may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this AIP approval and the HMR.

b. A current copy of this AIP approval must be maintained at each facility where the package is maintained and/or repaired.

c. Marking of each tank car is required by and must meet the marking and labeling requirements of 49 CFR Part 172, Subparts D and E, respectively. The car must be identified by a stencil or decal placed above the tank specification number. The stencil must have at least 1 ½-in high (38.1 mm) letters and numbers and display "FRA-AIP 202501." Additionally, the car must have the initial qualification year (QUALIFIED) and the next qualification year (DUE) displayed on the appropriate line in the qualification stencil. This interval must be developed from the Service Reliability Assessment. Marking must occur at time of next shopping by a tank car facility, not to exceed the maximum allowable interval given in 49 CFR § 180.509(c) or the maximum allowable interval permitted by an applicable AIP.

d. If a tank car operating under this approval is removed from the AIP, then all AIP markings must be removed.

8. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this approval and penalties prescribed by the Federal hazardous materials transportation laws, 49 U.S.C. § 5101 *et seq.*

a. The grantee must comply with all terms and conditions prescribed in this approval and the HMR, 49 CFR Parts 171-180.

b. Each "Hazmat employee," as defined in § 171.8, who performs a function subject to this approval must receive

training on the requirements and conditions of this AIP in addition to the training required by §§ 172.700 through 172.704. This includes, but is not limited to, tank car facility management, tank car facility quality assurance management, tank car facility personnel that perform weld inspections, tank car facility personnel that perform quality assurance functions, and tank car owner personnel that perform fleet management functions.

c. No person may use or apply this AIP, including display of its number, when this approval has lapsed or is otherwise no longer in effect.

9. REPORTING REQUIREMENTS:

a. GBRX must notify the FRA Associate Administrator for Railroad Safety, Chief Safety Officer, in writing no later than 30 days after notification of any incident (as defined in 49 CFR § 107.1) involving a Tank Car subject to this AIP.

b. GBRX must report instances of corrosion damage or tank failure not considered in the damage-tolerance analysis or service reliability assessment on any car subject to this approval to FRA within five days of being notified of such occurrence.

c. GBRX must maintain a list of tank cars by reporting mark and number that are operating under this approval. GBRX must include the status of the required marking in § 7(c) and this list must be reported to FRA every 5 years or upon request.

d. GBRX must report to FRA annually on the reliability of the fleet to illustrate that the statistical model used to determine the inspection interval shows that there are no expected failures.

e. GBRX must report CONTROL results (see § 5(e)) to FRA every 5 years or upon request.

10. LIMITATIONS:

If a tank car operating under this approval is transferred from GBRX to another Tank Car Owner, then the tank car will no longer be subject to the relief granted under this

approval and all of the required marking (see § 7(c)) must be removed. The qualification due date must be changed to reflect the new Tank Car Owner's Qualification Interval in accordance with the new Tank Car Owner's qualification and maintenance program. If the new due date is in the past, qualification is due immediately.

11. CANCELLATION:

FRA may rescind this approval for failure to comply with any of its terms or if the relief granted decreases the design level of reliability and safety.

Issued in Washington, D.C.:



March 19, 2025

Karl Alexy
Associate Administrator for Railroad Safety
Chief Safety Officer

Address all inquiries via e-mail to: Randy M Keltz Jr., Manager, Tank Car Safety Programs, Office of Railroad Safety, Federal Railroad Administration at Randy.Keltz@dot.gov.

Photo reproductions and legible reductions of this approval are permitted. Any alteration of this approval is prohibited.

REVISION HISTORY		
REV	DATE	DESCRIPTION
	03/2025	Original approval

