Appendix B

MP&E Waivers

Electronic Locomotive Brakes

The following are waivers that apply to electronic locomotive air brakes, which extend the time periods specified in §§ 229.29(a) and 229.27(a)(2) for cleaning, repairing/replacing, and testing locomotive brake components.

FastBrake - EPIC Electronic Locomotive Brakes

Re: Docket Number FRA-2002-13397 (Formally H-92-3)

Waiver FRA-2002-13397 (formally H92-3) was amended to include Wabtec's next generation of the EPIC product line, the FastBrake electronic air brake system. This conditional waiver extends the time intervals for cleaning, repairing and testing certain pneumatic air brake components listed in 49 CFR §229.27(a)(2) and 49 CFR §229.29(a) to five years. Any railroad can use waiver FRA-2002-13397 for locomotives equipped with an EPIC brake system, as long as the waiver is properly identified on the locomotive blue card, Form FRA F6180-49A. Waiver FRA-2002-13397 is subject to the following conditions:

1. WABCO shall furnish FRA a list of all locomotives equipped with the EPIC or FastBrake systems to include: the locomotive manufacturer, the locomotive reporting marks and the date that each locomotive entered service, along with a quarterly update of locomotives that are placed in service with the EPIC or FastBrake systems.

2. WABCO shall submit to FRA a quarterly report listing air brake failures, both pneumatic and electrical, of all locomotives included in this waiver to include: type and date of failure, locomotive reporting marks, cause and resolution, and any parts replaced.

3. All verified failures of pneumatic components shall be promptly reported to FRA prior to disassembly so that WABCO, the railroad, and FRA personnel can jointly witness disassembly of the failed component to determine the cause.

4. FRA's Staff Director for Motive Power and Equipment may select up to sixteen locomotives each calendar year for testing. The locomotives selected shall be comprised of locomotives that have been in service for one, two, three and four years with the EPIC or FastBrake system. WABCO shall arrange with the railroads to select a date, time and location for the test. FRA, WABCO and railroad personnel will test the locomotive brake system using an FRA approved static locomotive air brake test procedure. If there are no failures, nothing further will be required. If any

pneumatic valve fails the test on the locomotive, the failure will be verified on a test rack or on another locomotive. If failure is verified, all pneumatic brake devices will be removed from the locomotive for disassembly and inspection.

5. FRA reserves the right to increase the number of locomotives tested as the total of locomotives subject to this waiver increases.

6. The brake pipe vent valves shall be cleaned, repaired and tested at a minimum of every 368 calendar days.

7. In addition to the current requirements of 49 CFR 229.27(a)(1), all filtering devices associated with the EPIC or FastBrake system shall be cleaned, repaired, or replaced on a 368 calendar day interval.

8. The air compressor shall be maintained to perform as intended with emphasis on detection of oil contamination of the main reservoir air.

9. FRA reserves the right to modify or rescind this waiver at any time if failures or conditions so justify, or in the event of noncompliance with any of the conditions of this waiver.

CCB Locomotive Brakes

Re: Docket Number FRA-2000-7367 (Formerly H 95-3)

The Computer Controlled Brake (CCB) system is manufactured by the New York Air Brake Corporation (NYAB). Any railroad can use waiver FRA-2000-7367 for locomotives equipped with the CCB brake system, as long as the waiver is properly identified on the locomotive blue card, Form FRA F6180- 49A. The existing waiver (FRA-2000-7367) was first granted on September 13, 1996, extending the time interval for cleaning, repairing, and testing pneumatic components of the NYAB CCB-I locomotive air brake system under 49 CFR §229.27(a)(2) and 49 CFR §229.29(a), from 736 days to 5 years. On August 20, 1998, the waiver was modified to include NYAB's CCB-II electronic air brake system. On March 11, 2005, FRA modified the existing waiver to include the new CCB-26 electronic airbrake system, along with the CCB-I and CCB-II systems, subject to the following conditions:

1. NYAB shall furnish the FRA a list of all locomotives operating in the United States equipped with the CCB-I, CCB-II, and CCB-26 brake to include: the locomotive reporting marks, the date that each locomotive entered service and a quarterly update of locomotives that are placed in service with the CCB brake.

2. FRA reserves the right to have NYAB perform tests and conduct a tear-down inspection of any failed pneumatic component of the CCB brake system with FRA personnel witnessing the tests and tear-down inspection.

3. At FRA's discretion, NYAB in conjunction with the railroads, shall perform a functionality test of the CCB brake system on selected locomotives. If any pneumatic valve fails the test on the locomotive, the failure will be verified on a test rack. All pneumatic brake devices will be removed for disassembly and a visual inspection.

4. NYAB shall coordinate with each affected railroad to identify complete CCB sets from the same locomotive for an evaluation of the CCB brake equipment at the five year periodic interval, using NYAB Test Plan ABT-3164 or an FRA approved substitute. Every effort should be made to collect original equipment by identifying locomotives in which the CCB sets have had no component replacement during the five year service life. If this is not possible, a detailed air brake service report from the railroad must be provided.

5. Test Plan ABT-3164 or FRA approved substitute shall be used to test 10 sets of CCB-26 material in a NYAB test facility at the conclusion of five years in service. All failures identified in the test shall be put through the NYAB Failure Analysis process to determine the root cause. All components (whether pass or fail) will be torn down and visually inspected with documented photographs of the sub-components. Rubber will be tagged and retained for one year in case further analysis is required or requested. FRA reserves the right to have FRA personnel witness the tests and tear-down inspections;

6. Reports of each set tested will be summarized and provided to FRA and the appropriate railroad. This report will include the locomotive number, in-service date, history of repairs and field modification (FMI) activities, date any material was removed, and the testing and tear-down results. The test reports will also contain all photos, test failures, root cause failure analysis (if required), and an evaluation of the effect of any failures upon the locomotive performance;

7. NYAB shall notify FRA immediately of any significant trends of pneumatic and/or electronic failures (to include software problems), or any new problems that have not been previously identified, which affect the operation of the CCB equipment on any locomotive operating under this waiver.

8. FRA reserves the right to increase the number of locomotives tested as the total number of locomotives subject to this waiver increases.

9. In addition to the current requirements of 49 CFR 229.27 (a)(1), all filtering devices associated with the CCB brake system shall be cleaned, repaired, or replaced on a 368 calendar day interval.

10. The brake pipe vent valve shall be inspected, cleaned, repaired, and tested every five years.

11. The air compressor shall be maintained to perform as intended with emphasis on detection of oil contamination of main reservoir air.

12. FRA reserves the right to modify or rescind this waiver at any time, if failures or conditions warrant, or in the event of noncompliance with any of the conditions of this waiver.

CSX Transportation - CCB Test Waiver

Re: Docket Number FRA-1999-6252

CSX Transportation (CSXT) was granted a test waiver to prove that the new technology incorporated in the CCB electronic brake system is more reliable and safer in the Rail Transportation Industry with the intent of moving to a performance-based criterion with components replaced or repaired as required. The waiver is applicable to the New York Air Brake Corporation (NYAB) Computer Controlled Brake (CCB) System on CSXT locomotives, per the conditions outlined below. The waiver also provides that a committee (Joint CSX/CCB Committee) be created that is comprised of representatives from:

1. FRA
2. CSXT
3. Brotherhood of Locomotive Engineers
4. International Association of Machinists and Aerospace Workers
5. New York Air Brake Corporation, A Knorr Brake Company
6. General Electric Transportation Systems - Locomotive Division
7. Electro Motive Division - EMD
8. GE Harris Railway Electronics
9. Rockwell Transportation Electronics
10. Harmon Industries
11. Any other organization or manufacturer involved with the CCB brake system used on locomotives under the Test Plan.

The waiver is subject to the following conditions:

1. The Joint CSX/CCB Committee is responsible for adopting and establishing a Test Plan which shall prescribe all testing parameters;

2. All Testing procedures and parameters are subject to approval of the FRA Test Monitor, who shall be appointed by the FRA Associate Administrator for Safety;

3. An opportunity to witness all inspections and tests, which are part of the Test Plan, will be afforded each member of the Joint CSX/CCB Committee. Each member of the Joint CSX/CCB committee shall be provided advance notice of such inspections and tests;

4. CSXT will provide FRA and the Joint CSX/CCB Committee with a monthly report of all reported brake failures on all locomotives under the Test Plan;

5. The FRA Test Monitor retains the right to modify or suspend any test performed under the Test Plan;

6. A periodic (92-day) test of the CCB Brake system shall be conducted as required by 49 CFR 229.23, to include a complete functionality test of the locomotive brake system;

7. All brake system filtering devices and dirt collectors shall be replaced annually;

8. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

Amtrak Electronic Brake Equipment, used on HHP8 Electric Locomotives

Re: Docket Number FRA-2001-10596

The National Railroad Passenger Corporation (Amtrak) was granted a waiver, FRA 2001-10596, of compliance from certain provisions of the *Railroad Power Brake and Drawbars* regulations, 49 CFR 229, regarding the required periodic tests of locomotive brake equipment. This waiver is specific to the electronic brake equipment manufactured by Knorr - New York Air Brake Company (NYAB) and used on Amtrak's HHP8 electric locomotives. It extends the time interval from two years to 5 years on the NYAB electronic brake equipment used on the HHP8 electric locomotives owned by Amtrak with the following conditions:

1. Amtrak shall furnish the FRA a list of all locomotives equipped with this type of

electronic brake equipment to include: the locomotive reporting marks; the date that each locomotive entered service; and a quarterly update of locomotives that are placed in service with this brake.

2. Amtrak must submit to FRA a quarterly report listing air brake failures, both pneumatic and electrical, of all locomotives under this waiver to include: type and date of failure; locomotive reporting marks; and the cause and resolution of the problem.

3. All verified failures of pneumatic components must be promptly reported to FRA prior to disassembly so that FRA personnel can witness disassembly of the failed component to determine the cause.

4. Amtrak and FRA shall select one locomotive each calendar year for full functional testing, along with the disassembly and inspection of the pneumatic valves. If any pneumatic valve fails the functional test on the locomotive, the failure shall be verified on a test rack or on another locomotive. If the failure is verified, another locomotive will be selected for full functional testing and teardown inspection. If there are no failures, nothing further will be required for that calendar year.

5. FRA reserves the right to increase the number of locomotives tested, as the total number of locomotives subject to this waiver increase's.

6. All systems for the discharge or removal of moisture, such as automatic drain valves and air dryers, shall be serviced and maintained to function as intended by the manufacturer.

7. In addition to the current requirements of 49 CFR 229.27 (a)(1), all filtering devices associated with the brake system shall be cleaned, repaired, or replaced on a 368 calendar-day interval.

8. The brake pipe vent valve shall be inspected, cleaned, repaired and tested at a minimum of every 368 calendar days.

9. The air compressor shall be maintained to perform as intended with an emphasis on detection of oil contamination of main reservoir air.

10. Amtrak shall ensure that the correct waiver information is entered on Form F 6180-49A of each locomotive under this waiver.

11. FRA reserves the right to modify or rescind this waiver at any time, if failures or

conditions warrant, or in the event of non-compliance with any of the conditions of this waiver. Also, at the conclusion of the five year period, FRA reserves the right to extend the waiver if conditions warrant.

Locomotive Brakes

Association of American Railroads - 26-L Type Brake - 1104 days to 48 Months

Re: Docket Number FRA-2005-21325

The Association of American Railroads (AAR) was granted a waiver to extend the time interval requirements of 49 CFR 229.27 *Annual Tests* and 49 CFR 229.29 *Biennial Tests* for all locomotives equipped with 26-L type brake systems and air dryers. This waiver applies to any locomotive equipped with a 26-L type brake system and a functioning air dryer, irrespective of ownership or the trackage on which the locomotive is operating. The new time interval is 1,472 calendar days for air brake equipment subject to the clean, repair, and test requirements of Sections 229.27(a)(2) and 229.29(a), subject to the following conditions:

1. The waiver shall apply only to locomotives equipped with 26-L type brake equipment and a functioning air dryer;

2. Any locomotive operating under this waiver shall have the waiver properly noted on Form FRA F 6180-49A;

3. All air brake filtering devices shall be cleaned or replaced annually;

4. All systems for the discharge or removal of moisture, such as automatic drain valves and air dryers shall be maintained to function as intended;

5. The air compressor must be maintained to perform as intended with emphasis on detection of oil contamination of the main reservoir air;

6. FRA and AAR shall work together and randomly select two locomotives, annually, for a tear down inspection of the brake equipment, to be witnessed by FRA and invited labor representatives. The number and frequency of this condition may be changed by FRA based on the performance of the brake equipment or the results of the inspections;

Canadian Pacific Railway Company - 26-L Type Brake - 1104 days to 48 Months

Re: Docket Number FRA-1999-5894

The Canadian Pacific Railway Company (CP) was granted a conditional waiver from 49 CFR 229.27(a)(2) and 229.29(a), concerning the time interval provisions of the periodic cleaning, repairing, and testing of locomotive air brake components. The waiver extends the required time interval from 1,104 days to 48 months for all CP locomotives equipped with 26-L type brake equipment operating in the United States, with the following conditions:

1. The waiver shall apply only to "Canadian-based" locomotives owned, operated, and maintained by the CP. This waiver shall not apply to locomotives owned, operated, or maintained by subsidiary companies of the CP;

2. This waiver shall not apply to locomotives used in the United States on long-term lease programs (long-term is a duration of 30 days or more);

3. Any locomotive operating under this waiver shall have the waiver properly noted on Form FRA F 6180-49A;

4. 26-L type air brake equipment subject to the clean, repair, and test requirements of §229.27(a)(2) and §229.29(a) shall have the time interval extended to 1,472 calendar days. The location and date where this service is performed shall be recorded on Form FRA F 6180-49A. The person performing the work and his/her supervisor shall sign the form;

5. All air brake filtering devices shall be cleaned or replaced annually;

6. All locomotives operating under this waiver shall be equipped with an air dryer;

7. All systems for the discharge or removal of moisture, such as automatic drain valves and air dryers, shall be maintained to function as intended by the manufacturer;

8. The air compressor must be maintained to perform as intended, with emphasis on detection of oil contamination of the main reservoir air;

9. The air compressor shall have testing and maintenance performed annually, according to the detailed railroad maintenance program;

10. The air compressor shall receive an overhaul not less than every six years, with the overhaul date recorded on FRA F 6180-49A;

11. FRA and CP shall work together and randomly to select two locomotives annually for a tear-down inspection of the brake equipment, to be witnessed by FRA and invited labor representatives. The number and frequency of this condition may be changed by the FRA based on the performance of the brake equipment or the results of inspections;

12. FRA will periodically inspect facilities where locomotive COT&S is performed, in order to monitor procedures and record-keeping;

13. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

Canadian National Railroad - 26-L Type Brake - 1104 days to 48 Months

Re: Docket Number FRA-LI-96-2

The Canadian National Railroad (CN) granted a conditional waiver from 49 CFR 229.27(a)(2) and 229.29(a), concerning the time interval provisions of the periodic cleaning, repairing, and testing of locomotive air brake components. The waiver extends the required time interval from 1,104 days to 48 months for all CN locomotives equipped with 26-L type brake equipment operating in the United States, with the following conditions:

1. The waiver shall apply only to "Canadian-based" locomotives owned, operated, and maintained by the CN. This waiver shall not apply to locomotives owned, operated, or maintained by subsidiary companies of the CN;

2. This waiver shall not apply to locomotives used in the United States on long-term lease programs (long-term is a duration of 30 days or more);

3. Any locomotive operating under this waiver shall have the waiver properly noted on Form FRA F 6180-49A;

4. 29-L type air brake equipment subject to the clean, repair, and test requirements of §229.27(a)(2) and §229.29(a), shall have the time interval extended to 1,472 calendar days. The location and date where this service is performed shall be recorded on Form FRA F 6180-49A. The person performing the work and his/her supervisor shall sign the form;

5. All air brake filtering devices shall be cleaned or replaced annually;

6. All locomotives operating under this waiver shall be equipped with an air dryer;

7. All systems for the discharge or removal of moisture, such as automatic drain valves and air dryers shall be maintained to function as intended by the manufacturer;

8. The air compressor must be maintained to perform as intended, with emphasis on detection of oil contamination of the main reservoir air;

9. The air compressor shall have testing and maintenance performed annually, according to the detailed railroad maintenance program;

10. The air compressor shall receive an overhaul not less than every six years, with the overhaul date recorded on FRA F 6180-49A;

11. FRA and CN shall work together and randomly select two locomotives annually for a tear-down inspection of the brake equipment, to be witnessed by FRA and invited labor representatives. The number and frequency of this condition may be changed by the FRA based on the performance of the brake equipment or the results of inspections;

12. FRA will periodically inspect facilities where COT&S is performed, in order to monitor procedures and record-keeping;

13. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

Locomotive Record-Keeping

The Government Paperwork Elimination Act (GPEA), Public Law No. 105-277, requires executive agencies to provide "for the option of the electronic maintenance, submission, or disclosure of information, when practicable as a substitute for paper" and "for the use and acceptance of electronic signatures, when practicable."

Through the waiver process, many railroads have opted to take advantage of the GPEA regarding the paper requirements found in certain provisions of the Locomotive Safety Standards, 49 CFR Part 229. Specifically, the calendar day inspection records and the periodic inspection information required for the locomotive "Blue Card," Form FRA 6180.49A.

Daily Inspection Electronic Record- Keeping

The following are waivers allow for the use of electronic signatures and electronic storage of daily locomotive inspection records for specific railroads.

Burlington Northern Santa Fe Railway (BNSF)

Re: Docket Number FRA-2000-7782

1. The daily inspection record maintained onboard the locomotive will be amended to include a place for person performing the inspection to sign, and a place to indicate if the locomotive was found in non-compliance at the time of the daily inspection.
2. All transportation employees performing daily locomotive inspections will utilize a secure and unique electronic access code, assigned to them for logging on and off duty and reporting "Hours of Service," for reporting daily locomotive inspection into the data base.

3. Locomotives found defective during the daily inspection will have the block on the onboard record indicating a defective condition checked; a non-complying tag will be made out; the defective condition reported to the Network Operations Center Mechanical Desk for disposition; and the locomotive will not be used until corrective action is taken.

4. The operations desk will enter the information into the database and will determine how best to handle the defective locomotive: set out, send a mechanic, or move as a non-complying locomotive.

5. Crew members utilizing the quick tie-up provision (Hours of Service) will not be polled on locomotive inspection and review defects entered by Operations Center.

6. Mechanical department employees performing daily inspections will be required to fill out the onboard record and will be provided a secure and unique electronic access code for reporting inspections, listing repairs made, or providing additional information to the existing records within the database.

7. Database records will be maintained for 92 days. Records of repairs made will be made to the database without any change to the original reported information. Database access will be provided through the use of employee ID's and a unique password.

8. BNSF will protect and prevent tampering with the database by use of a security program. At this time BNSF utilizes an IBM program called Resource Access

Control Facility (RACF) which allows the user to append the record but not alter the original records. BNSF shall use RACF or an equivalent level of protection to protect database information.

9. FRA Inspectors will be provided all electronic records for specific locomotives upon request from BNSF at any computer terminal accessing the program, i.e. transportation and mechanical facilities. BNSF is responsible for maintaining onboard records and database records of daily inspections.

10. FRA reserves the right to modify or rescind the waiver upon receipt of information pertaining to the safety of rail operations, evidence of electronic data base integrity deficiencies, or in the event of non-compliance with any condition of this waiver;

Union Pacific Railway (UP)

Re: Docket Number FRA-2001-11014.

1. The daily inspection record maintained onboard the locomotive will be amended to include a place for person performing the inspection to sign, and a place to indicate if the locomotive was found in non-compliance at the time of the daily inspection.

2. All transportation employees performing daily locomotive inspections will utilize a secure and unique electronic access code, assigned to them for logging on and off duty and reporting "Hours of Service," for reporting daily locomotive inspection into the database.

3. Locomotives found defective during the daily inspection will have the block on the onboard record indicating a defective condition checked, a non-complying tag will be made out, the defective condition reported to the Harriman Dispatch Center (HDC), and the locomotive will not be used until corrective action is taken.

4. The HDC Mechanical Desk will enter the information into the database and will determine how to best handle the non-complying locomotive, to either set out, send a mechanic, or move as a non-complying locomotive. The crew member will report the locomotive inspection at "tie-up" if Hours of Service does not apply.

5. Crew members utilizing the quick tie-up provision (Hours of Service) will not be polled on locomotive inspection and review of the defects entered by Operations Center.

6. Mechanical department employees performing daily inspections will be required to fill out the onboard record and will be provided a secure and unique electronic access

code for reporting inspections, listing repairs made, or providing additional information to the existing records within the database.

7. Database records will be maintained for 92 days. Records of repairs made will be made to the database without any change to the original reported information. Database access will be secured and the inputting employees will be identified.

8. UP will protect and prevent tampering with the database by use of a security program. UP will allow the user to append the records, but not alter the original records. UP shall use an electronic security program to protect database information.

9. FRA inspectors will be provided all electronic records for specific locomotives upon request from UP at any computer terminal accessing the program, i.e. transportation and mechanical facilities. UP is responsible for maintaining onboard records and database records of daily inspections.

10. FRA reserves the right to modify or rescind the waiver upon receipt of information pertaining to the safety of rail operations, evidence of electronic database integrity deficiencies, or in the event of non-compliance with any condition of this waiver;

Norfolk Southern Corporation (NS)

Re: Docket Number FRA-2005-22822.

1. The daily inspection record maintained onboard the locomotive will be amended to include a place for the person performing the inspection to sign or provide their employee identification number, and a place to indicate if the locomotive was found in non-compliance at the time of the daily inspection.

2. All transportation employees performing daily locomotive inspections will utilize a secure and unique electronic access code, assigned to them for logging on and off duty and reporting "Hours of Service", for reporting daily locomotive inspection into the data base;

3. Locomotives found defective during the daily inspection will be reported to the Mechanical Operations Center (MOC) for disposition;

4. The MOC will enter the information into the data base and will determine how best to handle the defective locomotive; set out, send a mechanic, or move as a non-complying locomotive;

5. Crew members utilizing the quick tie-up provision (Hours of Service) will not be polled on locomotive inspection and review defects entered by MOC;

6. Mechanical department employees performing daily inspections will be required to fill-out the onboard record and will be provided a secure and unique electronic access code for reporting inspections, listing repairs made, or providing additional information to the existing records within the data base;

7. Data base records will be maintained for 92 days. Records of repairs made will be made to the data base by the person performing the repair and without any change to the original reported information. Database access will be provided through the use of employee ID's and a unique pass word;

8. NS will protect and prevent tampering with the data base by use of a security program.to protect database information;

9. FRA inspectors will be provided all electronic records for specific locomotives upon request from NS at any mechanical department computer terminal;

10. NS is responsible for maintaining onboard records and data base records of daily inspections;

11. This waiver shall be identified in block number 19 of the FRA form F6180.49A (locomotive blue card) and explanatory information regarding the scope and content of the waiver shall be included under "Remarks".

12. FRA reserves the right to modify or rescind the waiver upon receipt of information pertaining to the safety of rail operations, evidence of electronic data base integrity deficiencies, or in the event of non-compliance with any condition of this waiver;

Electronic Record- Keeping - Form-FRA 6180-49A (Blue Card)

Burlington Northern Santa Fe Railway (BNSF)
Re: Docket Number FRA-2003-16440

Canadian National Railway (CN)
Re: Docket Number FRA-2004-18960. limited to locomotives owned or leased by CN, GTW, DPW, WC, BL&E, DM&IR, and BC Rail maintained by those railroads in their facilities;

Union Pacific Railway (UP)
Re: Docket Number FRA-2004-17308.

The above railroads have been granted waivers from certain provisions of the Locomotive Safety

Standards (49 CFR Part 229) which permit them to maintain and store electronically, the periodic inspection information required for the Blue Card, Form FRA - F 6180.49A. Employees who perform periodic, annual, and bi-annual inspections are permitted to record the inspection information electronically. These waivers also allow the railroad to store the information in an electronic data base. Locomotives will still be required to have either a Form FRA-6180.49A or a computer generated form in place on the locomotive. The following conditions apply to these waivers:

1. The railroads are authorized to use a computer generated form instead of a standard FRA F6180.49A. This form must contain all the required information, including identifying this waiver. The printed name of the person performing the inspections will satisfy the requirement for a signature;

2. The railroad will maintain an electronic database to identify those units which require periodic inspection before continuing in service;

3. Employees and supervisors required to make entries on electronic FRA F 6180.49A will be provided with a secure and unique electronic access code for reporting and certifying inspections and repair records;

4. The railroads will provide employees inspection packages including all required tests and procedures need to perform required inspection and tests, if provided electronically a means for person performing inspections to indicate completion shall be provided by unique electronic access code assigned;

5. Inspection packages will include defects and repairs made to the locomotive over the previous ninety-two days;

6. FRA inspectors will be provided computer generated copies of FRA F 6180.49A upon request at any of the railroads locomotive facilities utilizing the electronic reporting covered by this waiver.

Freight Car Brakes

Piston Travel Requirements -

Re: Docket Number FRA-2004-19402

A waiver was granted to the Association of American Railroads (AAR) and the Railway Supply Institute (RSI), changing the piston travel provisions contained in Sections 232.205(c)(5) *Class I Brake Test - Initial Terminal Inspection*, and in 232.303(c) *General Requirements* when a car is on a shop or repair track. The waiver changes the minimum piston travel measurement to be six (6) inches, rather than the current minimum requirement of seven (7) inches, for all cars equipped with 12-inch stroke (eight and one-half (8 ½) or ten (10) inch diameter) brake cylinders, subject to the following conditions:

1. This waiver applies to all freight cars equipped with nominal 12-inch stroke and 8 ½-inch or 10-inch diameter brake cylinders;

2. When conducting a Class I brake test on cars equipped per condition #1, piston travel shall be within 6 to 9 inches. If piston travel is found to be less than 6 inches or more than 9 inches, the piston travel shall be adjusted to nominally 7 ½ inches;

3. When a car identified in condition #1 is on a shop or repair track, piston travel shall be within 6 to 9 inches. If piston travel is found to be less than 6 inches or more than 9 inches, the piston travel shall be adjusted to nominally 7 ½ inches;

4. Cars identified in condition #1 shall have the empty/load valve tested, if so equipped, as prescribed in AAR Standard S-486-04, Sections 4.6.1 through 4.6.5, anytime a single car test is performed on the car, irrespective of whether the valve has been changed or not;

5. Railroads shall immediately report any accident involving this procedure to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

ECP Brake Requirements for BNSF and NS -

Re: Docket Number FRA-2006-26435

A waiver was granted to the BNSF Railway Company and the Norfolk Southern Railway Company in order to begin equipping and operating pilot trains using electronically controlled pneumatic (ECP) brakes instead of conventional pneumatic brake systems, subject to the following conditions:

1 This waiver shall apply only to BNSF and NS trains equipped and operating with ECP brake systems.

2 The ECP brake system shall, at a minimum, meet all of the current American Association of Railroads (AAR) standards contained in the AAR Manual of Standards and Recommended Practices related to ECP brake systems.

3 A train operating in ECP brake mode shall receive a Class I brake test as described in § 232.205(c) by a qualified mechanical inspector (QMI), and shall receive a pre-departure freight car inspection, pursuant to the requirements specified in 49 CFR Part 215 by an inspector designated under § 215.11 at the initial terminal (where the train is originally assembled) or where a unit or cycle train Class I brake test is required.

4 Trains operating in ECP brake mode shall not operate at a distance that exceeds its destination or 3,500 miles, whichever is less, without receiving another Class I brake inspection and another Part 215 inspection as outlined in condition #3.

5 A unit or cycle train operating in ECP brake mode shall receive a Class I brake inspection and Part 215 inspection at least every 3,500 miles as outlined in condition #3.

6 The distance that any car in a train has traveled since receiving a Class I brake test by a QMI will determine the distance that the train has traveled.

7 A train operating in ECP brake mode shall receive a Class I brake test as described in § 232.205(c) by a qualified person at a location where the train is off air for a period of more than 24 hours.

8 Each car equipped with an ECP brake system that is added to a train operating in ECP brake mode shall receive a Class I brake test as described in § 232.205(c) by a qualified person, unless all of the following are met:

- 8.1 The car has received a Class I brake test by a QMI within the last 3,500 miles;
- 8.2 Information identified in § 232.205(e) relating to the performance of the previous Class I brake test is provided to the train crew;
- 8.3 The car has not been off air for more than 24 hours; and
- 8.4 A visual inspection of the car's brake systems is conducted to ensure that the brake equipment is intact and properly secured. This may be accomplished as part of the inspection required under 49 CFR 215.13 and may be conducted while the car is off air.

9 An ECP brake-equipped train that receives a Class I brake test by a QMI is not required to receive any Class IA brake tests.

10 A train operating in ECP brake mode shall receive a Class III brake test as described in § 232.211(b), (c), and (d), at the location where the configuration of the train is changed or whenever the continuity of the brake pipe or electrical connections is broken or interrupted, with the train consist otherwise remaining unchanged.

11 In lieu of the specific brake pipe service reductions required throughout 49 CFR Part 232, an electronic signal that provides an equivalent application and release of the brakes shall be utilized when conducting any required inspection or test on a freight car or train operating in the ECP brake mode.

12 In lieu of the specific piston travel ranges specified throughout 49 CFR 232, the piston travel on freight cars equipped with ECP brake systems shall be within the piston travel limits stenciled or marked on the car or badge plate consistent with the manufacturers recommended limits. However, at no time shall piston travel on a standard 12-inch stroke piston exceed 9 inches when conducting a Class I brake inspection as outlined in condition #3.

13 When conducting the Class I brake test as outlined in condition #3, the composition type brake shoe must have at least ½-inch thickness, including the lining and backing plate.

14 A freight car or a freight train shall be exempted from the requirements contained in §§ 232.205(a) and (b), 232.207, 232.209, 232.211(a), and 232.505 when it is equipped with an ECP brake system and operating in ECP brake mode.

15 Handling of defective equipment with ECP brake systems;

15.1 Ninety-five percent of the cars in an ECP brake equipped train operating in ECP brake mode shall be effective and operative prior to use or departure from the train's initial terminal or any location where a Class I brake test is required to be performed on the entire train by a QMI;

15.2 A freight car or locomotive equipped with an ECP brake system that is found with inoperative or ineffective brakes for the first time during the performance of a Class I brake test or while en route, may be used or hauled without civil penalty liability under this part to its destination, not to exceed 3,500 miles; provided all applicable provisions of this section are met and the defective car or locomotive is hauled in a train operating in ECP brake mode;

15.3 A freight car equipped with an ECP brake system that is known to have arrived with ineffective or inoperative brakes at the location of a train's initial terminal or at a location where a unit or cycle train Class I brake test is required, shall not depart that location with ineffective or inoperative brakes in a train operating in ECP brake mode unless the location does not have the

ability to conduct the necessary repairs. If the location does not have the ability to conduct the necessary repairs, the car must be properly tagged in accordance with § 232.15(b), and can only be hauled for the purpose of repair to the nearest forward location where the necessary repairs can be performed;

15.4 A train operating in ECP brake mode shall not operate with less than 85 percent of the cars in the train with operative brakes, unless it is operating in Switch Mode for the purpose of moving to the nearest forward location where necessary repairs or changes to the consist can be made;

15.5 A freight car equipped with an ECP brake system that is part of a train operating in ECP brake mode that is found with a defective non-brake safety appliance may be used or hauled without civil penalty to the nearest forward location where the necessary repairs can be performed consistent with the guidance contained in § 232.15(f); and

15.6 A train operating with conventional pneumatic brakes shall not operate with freight cars equipped with standalone ECP brake systems, unless the train has 100-percent effective and operative brakes on all cars equipped with conventional pneumatic brakes and at least 95-percent effective and operative brakes when including the freight cars equipped with standalone ECP brake systems; **or** when cars are picked up en route, there shall be a minimum of 85-percent operative brakes for the entire train when including the standalone ECP brake-equipped cars.

16 A freight car equipped with an ECP brake system that is found with ineffective or inoperative brakes will be considered electronically tagged under § 232.15(b)(1) and (b)(5) if the car is used or hauled in a train operating in ECP brake mode and the ECP brake system is able to display the location and identification of the car with defective brakes. The railroad shall develop a method acceptable to FRA to capture and secure the appropriate information so that it is accessible to FRA and appropriate railroad mechanical personnel, as well as satisfy the requirements of § 232.15(b)(3).

17 Each railroad shall submit to the FRA Associate Administrator for Safety a list of locations on its system, and an updated list of locations where ECP brake system repairs will be performed each time a location is added or subtracted to its system.

18 In addition to the maintenance requirements contained in § 232.303(b) through (d), a freight car equipped with an ECP brake system shall be inspected before being released from a shop or repair track to ensure the proper and safe condition of the following:

(1) ECP brake system wiring and brackets,

(2) ECP brake system electrical connections,

(3) Electrical grounds and impedance, and
(4) Car mounted ECP brake system components.

19 Using procedures developed by the brake manufacturer, a single car air brake test shall be performed on a freight car equipped with an ECP brake system before being placed into revenue service for the first time using the ECP brake system.

20 Trains operating in ECP brake mode are exempt from the two-way end-of-train device requirements contained in Subpart E of 49 CFR Part 232.

21 Prior to operating a freight train in ECP brake mode, the ECP brake system's end-of-train(ECP-EOT) device must be connected to the brake pipe and train line cable at the end of the train operating with an ECP brake system. The ECP-EOT must be connected to the network and must be transmitting status messages to the head end unit (HEU) before the train line power can be energized continuously. The ECP-EOT shall continually report brake pipe pressure and trainline voltage to the HEU.

22 Each railroad shall develop and implement a training program for personnel that operate or perform inspection, testing, or maintenance on a freight car and/or freight train equipped with an ECP brake system. The training shall meet all of the requirements specified in § 232.203(a), (b), (e), and (f), and 49 CFR Part 240.

23 Each railroad shall amend its operating rules to govern safe train handling procedures related to ECP brake systems and equipment under all operating conditions, which shall be tailored to the specific equipment and territory of the railroad.

24 Prior to operating a train under authority of this waiver, the railroad(s) shall provide notice to the FRA in the same manner provided for extended haul trains pursuant to § 232.213(a)(1); and

25 This waiver is effective for a 5-year period from the date of this letter or until a final rule is implemented for trains equipped with ECP brake systems. At the conclusion of the 5-year period, FRA reserves the right to extend the waiver if conditions warrant and BNSF/NS makes a written request for an extension to FRA's Office of Safety Assurance and Compliance within 6 months of the expiration date.

Blue Signal

Two-way end-of-train telemetry devices (EOT) - Removal and replacement of batteries by train and yard crew members, and utility employees for BNSF

Re: Docket Number FRA-2001-10660

The Burlington Northern and Santa Fe Railway Company (BNSF) was granted relief from certain provisions of the *Railroad Operating Practices* regulations, 49 CFR Part 218, regarding blue signal protection of workers. Specifically, the waiver permits train and yard crew members, and utility employees, to remove and replace batteries in two-way end-of-train telemetry devices (EOT) while the EOT is in place on the rear of the train the individual has been assigned to, without establishing any blue signal protection. Waiver FRA 2001-10660 has the following conditions:

1. This approval only applies to BNSF employees;

2. Battery change-outs can be performed by train and yard crew members, and utility employees, only on the equipment they have been assigned to;

3. If the battery change-out requires the use of tools, blue signal protection would have to be established before the procedure could be carried out;

4. BNSF shall immediately report any accident involving this procedure to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

5. FRA reserves the right to modify or rescind this approval at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

6. This waiver will terminate upon issuance of final amendments to Part 218 arising out of the pending RSAC Blue Signal Task (No. 2000-1), or at the expiration of five-years from May 6, 2002, whichever comes first. FRA reserves the right to extend the waiver if conditions warrant and BNSF has made a written request for an extension to FRA's Office of Safety Assurance and Compliance, within six months of the expiration date.

Two-Way End-of-Train Device

TrainLink II - ATX end-of-train telemetry (TrainLink II) with power supplied by an Air Generator

Re: Docket Number FRA-2001-9270

Wabtec Railway Electronics (Wabtec) was granted relief from the requirements of 49 CFR 232.407(f)(2), which requires: *The rear unit batteries shall be sufficiently charged at the initial terminal or other point where the device is installed and throughout the train's trip to ensure that the end-of-train-device will remain operative until the train reaches its destination.* The waiver was requested because the TrainLink II - ATX unit has its power supplied by the air generator, not a battery. The waiver can be used by any railroad using the TrainLink II - ATX end-of-train telemetry unit (TrainLink II) that is manufactured by Wabtec, subject to the following conditions:

1. This waiver only applies to the TrainLink II - ATX end-of-train telemetry unit, (TrainLink II) manufactured by Wabtec;

2. Railroads using these devices shall ensure that all personnel (including contractors) responsible for the application, removal, testing, maintenance, and/or operation of the TrainLink II, shall be adequately trained to perform the applicable job functions;

3. The TrainLink II shall be installed and operating, with power supplied by the air generator, during the performance of all required air brake inspections and tests on trains equipped with this device;

4. When a TrainLink II is used to replace an existing end-of-train-device on a train, an air brake leakage test shall be satisfactorily performed on the train with the TrainLink II operating and powered by the air generator;

5. If there is any indication that the backup battery is dead or has a low charge condition at the time of installation, the device shall be considered defective and cannot be used until the battery is changed or fully charged;

6. Railroads using the TrainLink II shall perform recommended maintenance according to Wabtec's procedures, specifications, and time intervals with particular emphasis on the air filter;

7. The device shall meet or exceed all AAR standards and specifications regarding the

two-way end-of-train device and shall be compatible with other devices that meet the AAR standards and specifications;

8. The TrainLink II battery shall provide a minimum of 12 hours of continuous power to operate the device in the event the air generator stops functioning;

9. Existing TrainLink II devices shall be retrofitted to comply with condition # 8 within 9 months from the date of this letter;

10. With the exception of 49 CFR 232.403(g)(2), use of TrainLink II devices remain subject to the provisions of 49 CFR part 232, including, but not limited to:

    a. all inspection, testing, operating, and training requirements specified in 49 CFR part 232; and
    b. all en route failure restrictions specified in 49 CFR part 232;

11. Wabtec shall provide FRA with an annual report summarizing the performance of the product and any recurring or catastrophic problems associated with the device. The report shall also include any modifications to the product, as well as the number of units provided to the railroads;

12. Wabtec shall provide a copy of this approval letter to each railroad supplied with the TrainLink II device. Use of this equipment by any railroad is not permitted until such railroad provides to FRA's Associate Administrator for Safety a written confirmation that the railroad agrees to abide by the conditions established in this letter;

13. FRA reserves the right to modify or rescind this waiver, as it pertains to Wabtec or any user railroad, at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver; and
14. This waiver is effective for a five-year period. At the conclusion of the five-year period, FRA reserves the right to extend the waiver if conditions warrant and Wabtec has made a written request for an extension to FRA's Office of Safety Assurance and Compliance, within six months of the expiration date.

TrainLink II - Calibration Requirements for Units Eqquipped with the WRE Digitally Synthesized Radio

Re: Docket Number FRA-2004-18895

Wabtec Railway Electronics (Wabtec) was granted relief from the requirements of 49 CFR 232.407(f)(2), which requires the telemetry equipment to be tested for accuracy and calibrated if

necessary at least every 368 days, and requires that the date and location of the last calibration or test, as well, as the name of the person performing the calibration or test, be legibly displayed on a weather-resistant sticker or other marking device affixed to the outside of both the front and the rear unit.

The Federal Railroad Administration (FRA) reviewed the petition and conditionally approved the request, with the following conditions:

1. This waiver applies only to Wabtec TrainLink II Head of Train (HTD's) and End of Train devices (EOT's) that were produced since March 4, 2002, and all existing TrainLink units that have been upgraded with the new WRE digitally synthesized radio;

2. A weather-resistant sticker shall be attached to each unit, identifying that the unit is equipped with the new WRE digital radio and is covered by this waiver. Wabtec shall control the application of these stickers to the units and ensure that the stickers are not arbitrarily distributed to the railroads for railroad employees to apply to the units;

3. Wabtec shall immediately provide written notification to FRA's Office of Safety Assurance and Compliance of any unusual occurrences with the performance of these devices;

American Short Line Regional Railroad Association (ASLRRA) - Restrictions on Heavy Grade Operation Without Two-Way EOT

Re: Docket Number PB-97-12

Based on ASLRRA's request for reconsideration, the results of additional analyses and data furnished by Volpe, and in consideration of economic impacts on small entities, the FRA Railroad Safety Board conditionally approved petition PB-97-12 to permit trains to operate in heavy grade territories without a two-way EOT, only under the following restrictions and conditions:

1. Only railroads that have fewer than 400,000 annual employee work hours qualify for this waiver;
2. This waiver is limited to trains operating with a maximum of 200 trailing tons per locomotive axle. [trailing tons means the total tonnage (cars and lading) behind all locomotives providing power];
3. Each locomotive axle used to calculate the trailing tonnage shall have an operative air brake;

4. Each railroad desiring to operate under the terms of this waiver shall provide written

notification to the Director, Office of Safety Assurance and Compliance. The notification shall include the maximum grade and specific location(s) where relief is requested. A written description of the operating rules for the proposed operation shall also be included. The railroad may proceed upon acknowledgment by the Director of receipt of notification;

5. Any train operation over a section of track with an average grade greater than 4 % shall be equipped with a functional two-way end-of-train device;

6. The values in the following table shall be used for the purposes of this waiver only. The allowable trailing tons per locomotive axle is determined by the speed and the percentage of grade. **Neither the speed nor the grade can exceed the allowable trailing tonnage per locomotive axle.** The percentage of grade is the average from the top of the mountain to the base of the mountain. Speeds listed in the table are maximum speeds allowed for grade and trailing tonnage combinations. However, railroads should set the speed limit in accordance with operating conditions at the location for which the waiver is applied, with particular attention to avoiding the 10 - 25 mile per hour range on jointed-track that may cause or accentuate harmonic roll of loaded cars;

ASLRRA Waiver PB-97-12 - Relief From Two-Way End-of-Train Requirements

Trailing tons per locomotive axle	10 miles per hour	15 miles per hour	20 miles per hour	25 miles per hour
up to 75	4.0 % grade	4.0 % grade	4.0 % grade	4.0 % grade
76 - 100	3.5 % grade	3.5 % grade	3.5 % grade	3.5 % grade
101 - 125	3.0 % grade	3.0 % grade	3.0 % grade	2.5 % grade
126 - 150	2.5 % grade	2.5 % grade	2.5 % grade	2.5 % grade
151 - 175	2.0 % grade	2.0 % grade	2.0 % grade	2.0 % grade
176 - 200 max.	2.0 % grade	2.0 % grade	2.0 % grade	1.0 % grade

7. If the train is equipped with dynamic brakes, the engineer shall determine the condition of the dynamic brakes prior to descending a grade, and such brakes shall be used to supplement the braking effort as required to control the train;
8. Grade/curvature and other local conditions may require the setting of retainers as specified by individual railroad operating rules;

9. If there is an incident where train line blockage or loss of train brakes occurs, the

wheels and brake system of the locomotives and cars shall be inspected after the train is safely brought to a complete stop, and a report made immediately to the FRA Regional Office;

10. The conditions of this waiver apply to all operations applicable to two-way end-of-train operations;

11. FRA reserves the right to deny a railroad inclusion to this waiver if conditions so justify;

12. FRA reserves the right to modify or rescind this waiver (as to all or individual railroads) at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver.

Passenger Equipment Safety Standards

Passenger Brakes

Re: Docket Number FRA-2003-15340

The American Association of Private Railroad Car Owners, Inc. (AAPRCO) was granted a conditional waiver from 49 CFR Part 238.231(m)(2), which specifies that "up to two cars may be operated in direct release mode when the rest of the cars in the train are operated in graduated release mode, provided that the cars operated in direct release mode are hauled at the rear of the train consist". This waiver modifies the requirements to read as follows:

> Up to two cars may be operated in direct release mode when the rest of the cars in the train are operated in graduated release mode.

Thereby, eliminating the placement restrictions of the direct release cars to the rear of the train.

This waiver applies to passenger train operations that are subject to 49 CFR Part 238, with the following conditions:

1 The maximum number of cars that may be operated in direct release mode, when the rest of the cars in the train are operated in graduated release mode, is two;

2 The hauling railroad is responsible for the safe placement of these cars in the trains, to include the right of refusal;

3 The locomotive engineer shall be notified in writing of the location of these cars in the train, along with any operating restrictions;

4 The hauling railroad is responsible for providing the locomotive engineer with adequate training on operating trains in "graduated-release" mode that include cars operating in the "direct-release" mode.

Highway Rail Vehicles such as RoadRailer®, RailRunner®, Etc.

An approved waiver is required for the operation of this type of equipment because the equipment does not comply with 49 CFR Part 231, which specifies the number, location, and dimensional specifications for handholds, ladders, sill steps, uncoupling levers and handbrakes; and §232.2, which regulates drawbar height. The following waivers have been granted to specific railroads,

Burlington Northern Santa Fe Railway Company - (BNSF)

Re: Docket Number FRA-1999-5895

Standard RoadRailer® Operations

1. This approval applies only to the BNSF RoadRailer equipment operation;

2. Interchange will only be permitted with a railroad that has a comparable approval to operate RoadRailer equipment;

3. RoadRailer units shall only be operated in trains consisting exclusively of RoadRailer units and locomotives, unless conditions shown below are complied with;

4. Trains consisting exclusively of RoadRailer equipment shall be limited to a maximum trailing tonnage of 4,800 tons (equivalent to 125 Mark V RoadRailer units or 200 PupRailers);

5. At no time shall the train length exceed the equivalent of 125 Mark V RoadRailer units;

6. An adapter unit (CouplerMate bogie) must be used between the hauling locomotive and the first RoadRailer unit in the train; the first RoadRailer behind the adapter unit must not be empty;

7. Each adapter unit (CouplerMate bogie) shall be equipped with a toolbox containing appropriate instructions, job aids and the necessary tools and equipment

required to address problems that may be encountered en route by the train crew;

8. Trains will only be permitted to pick-up or set-out RoadRailer units at locations specifically designed to perform these functions with mechanical personnel that are trained and on duty for the purpose of assembly and disassembly of RoadRailer units, unless a defective condition develops en route that would require a RoadRailer unit to be set out of the train;

9. Hazardous materials are permitted to be hauled in RoadRailer units provided: (1) the particular commodities are limited to those listed in Table 2 of 49 CFR 172.504; and (2) the shipment complies with other relevant provisions of the hazardous materials regulations; (3) placarding provisions of 49 CFR Subpart F of Part 172 shall apply during rail movements; (4) cargo tanks, multi-unit tank car tanks, portable tanks and intermodal (IM) portable tanks handling hazardous materials are not permitted in this service;

10. Each RoadRailer adapter unit (CouplerMate bogie) that does not have safety appliances that are compliant with current Federal regulations (with the exception of the handbrake), must be stenciled on each side, in clearly legible letters not less then 6 inches high, **"NO SAFETY APPLIANCES**" and "**DO NOT RIDE**,"at a location that is visible to a person walking at track level beside the unit;

11. BNSF shall have instructions that prohibit anyone from riding RoadRailer equipment, unless it is an adapter unit (CouplerMate® bogie) specifically designed to be ridden and is not stenciled as required in condition #10. Strict enforcement of this rule is required;

12. New terminal facilities for RoadRailer equipment shall, to the extent feasible, be designed to limit the frequency and length of reverse movements. Reverse movements of RoadRailer equipment, with personnel riding CouplerMates equipped with compliant safety appliances, shall not exceed 10 miles per hour;

13. Whenever a shoving move of RoadRailer equipment is required, the movement shall be protected by either: an individual riding an adapter unit (CouplerMate bogie) specifically designed to be ridden; or by an individual walking with the movement, and the speed of the move shall not exceed that of the individual walking;

14. Maximum speed of a RoadRailer train is 60 MPH, unless: (1) the RoadRailer units are equipped with AAR-1B narrow flange profile (1:40 taper) and maintained in that condition, whereby the maximum speed shall be 70 MPH; or (2) the entire

consist is made-up of ReeferRailer units, whereby the maximum speed shall be 70 MPH. In addition, BNSF shall consider the recommendations cited in FRA's safety analysis of October 18, 2000 (page 9), and inform FRA of actions taken;

15. Piston travel at initial terminal shall be 1 ¼ to 3 ½ inches;

16. The air brake shall be considered ineffective at 3 ⅝ inches;

17. BNSF shall ensure that all personnel (including contractors) responsible for assembly, inspection, testing, maintenance and operation of RoadRailer equipment have been trained and qualified to perform those duties prior to undertaking them, including the instructions in the approval pertinent to their duties. Training for railroad operating and mechanical personnel who may encounter the equipment, shall specifically include training necessary to provide for their personal safety when working on or in proximity to the equipment. Supervisors shall also possess the knowledge and skills required of employees subject to their direct supervision. Effective coincident with compliance dates established for revisions to 49 CFR Part 232 (see 66 FR 4101; January 17, 2001), all personnel required to receive training subject to this approval shall have their qualifications for duties, related to RoadRailer equipment, documented in the same manner provided in that part;

18. BNSF shall maintain adequate records to demonstrate the current qualification status of all personnel assigned to operate, inspect, test, and maintain RoadRailer equipment;

19. BNSF supervisors or their representatives shall exercise oversight to ensure that all tasks and maintenance/repair practices are performed in accordance with the railroad's written procedures, applicable Standards and Recommended Practices of the AAR, current AAR Interchange Rules, and all applicable Federal regulatory requirements;

20. BNSF shall immediately report any accident involving this equipment to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

21. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

RoadRailer® Mixed Train Operations

22. All the approvals for Standard RoadRailer Operations (items 1-22 above) will apply for mixed train consists, except as follows:

23. For the purpose of this approval, a "mixed train" shall consist of a solid block of RoadRailers coupled to the rear of conventional freight equipment, including multi-platform intermodal, autorack cars, and other freight cars meeting Association of American Railroads standards for interchange service;[1]

24. RoadRailer equipment must be placed in a solid block at the rear of a mixed train. RoadRailer equipment must be placed behind any manned helper locomotives. Remote or manned locomotives (DPU units) may be placed immediately ahead of RoadRailer equipment or further up in the train towards the front.

25. Train makeup rules must be published in the BNSF's current timetable and other special instructions. BNSF's computer-based information system must also be modified to flag non-compliant train makeup combinations and assure that information is furnished to applicable train crews before train departure. BNSF System Train Makeup Instructions and Subdivision Train Makeup Instructions also apply to mixed trains with RoadRailer equipment. When these instructions specify trailing tonnage limits, RoadRailer tonnage will be included. Train makeup instructions for trains with remote (DPU) or manned helper locomotives will also be included.

26. RoadRailer equipment totaling more than 3,000 tons must not be coupled to an empty long car (80 feet or longer and excluding multi-platform cars) or an empty TTOX car (single platform, single axle, BNSF Car Code QA) or a TTFX car with any empty platform (four platform, single axle, BNSF Car Code QDE). The BNSF computer-based Train Profile indicates 80 foot or longer cars in the train with the letter "L."

27. The following is a general approval for mixed train operations: Freight trains containing a maximum of 80 cars by car count which have less than 5 cars equipped with EOC cushioning, may be placed ahead of RoadRailer equipment provided the entire train does not exceed a total length of 7,500 feet including locomotives and the RoadRailer equipment does not exceed a maximum of 1,000 tons. The BNSF Train Profile indicates EOC cushion equipped cars in the train with the letter "E."

28. The following is a specific approval for intermodal trains which primarily contain multi-platform doublestack/spine equipment which have very little slack. For

[1]The term "mixed train" is used in lieu of the term "commingled trains" which was used in BNSF's petition.

intermodal trains containing doublestack and spine equipment with less than 5 other cars equipped with EOC cushioning, any combination of this equipment may be placed ahead of RoadRailer equipment, provided the entire train does not exceed a total length of 8,500 feet including locomotives and RoadRailer equipment does not exceed a maximum of 3,500 tons. Any RoadRailer weighing less than 28 tons must be placed in the rear 1,500 tons of the train. Doublestack equipment may include multi-platform articulated (BNSF Car Kind Codes QY, QV) and solid drawbar equipment (codes QW, QX, QT) and stand alone single platform equipment (code QU). Spine cars are multi-platform articulated equipment (codes QC, QO, Q5, QE, QM). This exception does not apply to westbound and eastbound trains on the Raton and Glorieta Subdivisions.

29. The following is a specific approval for trains with primarily EOC cushioned equipment (such as autorack and TOFC/COFC trains). For intermodal trains containing 5 or more cars equipped with EOC cushioning, any total combination of all cars in the train up to a maximum of 40 by car count may be placed ahead of RoadRailers provided the entire train does not exceed a total length of 5,500 feet including locomotives, and RoadRailer equipment does not exceed a maximum of 500 tons. Twin flats (BNSF Car Kind Codes QB, QD, QL) are considered two of these types of cars. RoadRailers must not be placed behind more than a total of 40 cars equipped with EOC cushioning such as autorack and/or TOFC/COFC cars due to the potential slack action with EOC equipment.

30. BNSF must provide an annual written report to FRA's Office of Safety Assurance and Compliance concerning the mixed train operations which identifies any incident, equipment modifications, operational difficulties and/or any related failed equipment.

31. Under the program of training set forth in paragraph 17 above, BNSF's operating and mechanical personnel must receive explicit training on RoadRailer mixed train makeup instructions pertinent to this waiver.

Canadian National Illinois Central Railroad (CN/IC)
Re: Docket Number FRA-2000-8089

1. This waiver applies only to the CN/IC RoadRailer® equipment operation;

2. Interchange will only be permitted with a railroad that has a comparable waiver to operate RoadRailer equipment;

3. RoadRailer equipment shall not be commingled with conventional railroad rolling equipment. RoadRailer units shall only be operated in trains consisting exclusively of RoadRailer units and locomotives;

4. RoadRailer Trains shall be limited to a maximum trailing tonnage of 4,800 tons (equivalent to 125 Mark V RoadRailer units or 200 PupRailers);

5. At no time shall the train length exceed the equivalent of 125 Mark V RoadRailer units;

6. An adapter unit (CouplerMate bogie) must be used between the hauling locomotive and the first RoadRailer unit in the train;

7. Each adapter unit (CouplerMate bogie) shall be equipped with a toolbox containing appropriate instructions, job aids and the necessary tools and equipment required to address problems that may be encountered enroute by the train crew;

8. Trains will only be permitted to pick-up or set-out RoadRailer units at locations specifically designed to perform these functions with mechanical personnel that are trained and on duty for the purpose of assembly and disassembly of RoadRailer units, unless a defective condition develops enroute that would require a RoadRailer unit to be set out of the train;

9. Hazardous materials are permitted to be hauled in RoadRailer units, provided: (1) the particular commodities are limited to those listed in Table 2 of 49 CFR 172.504; (2) the shipment complies with other relevant provisions of the hazardous materials regulations; (3) placarding provisions of 49CFRSubpart F of Part 172 shall apply during rail movements; and (4) cargo tanks, multi-unit tank car tanks, portable tanks and intermodal (IM) portable tanks handling hazardous materials are not permitted in this service;

10. Each RoadRailer adapter unit (CouplerMate bogie) that does not have safety appliances that are compliant with current federal regulations (with the exception of the handbrake), must be stenciled on each side, in clearly legible letters not less than 6 inches high, "NO SAFETY APPLIANCES" and "DO NOT RIDE," at a location that is visible to a person walking at track level beside the unit;

11. CN/IC shall have instructions that prohibits anyone from riding RoadRailer equipment, unless it is an adapter unit (CouplerMate bogie) specifically designed to be ridden and is not stenciled as required in condition #10. Strict enforcement of this rule is required;

12. New terminal facilities for RoadRailer equipment shall, to the extent feasible, be designed to limit the frequency and length of reverse movements. Reverse movements of RoadRailer equipment, with personnel riding CouplerMates equipped with compliant safety appliances, shall not exceed 10 miles per hour;

13. Whenever a shoving move of RoadRailer equipment is required, the movement shall be protected by either: an individual riding an adapter unit (CouplerMate bogie) specifically designed to be ridden; or by an individual walking with the movement, and the speed of the move shall not exceed that of the individual walking;

14. Maximum speed of a RoadRailer train is 60 MPH, unless the RoadRailer units are equipped with AAR-1B narrow flange profile (1:40 taper) and maintained in that condition, whereby the maximum speed shall be 70 MPH;

15. Piston travel at initial terminal shall be 1 ¼ to 3 ½ inches;

16. The air brake shall be considered ineffective at 3 ⅝ inches;

17. CN/IC shall ensure that all personnel (including contractors) responsible for assembly, inspection, testing, maintenance and operation of RoadRailer equipment have been trained and qualified to perform those duties prior to undertaking them, including instruction in the provisions of this waiver pertinent to their duties. Training for railroad operating and mechanical personnel who may encounter the equipment, shall specifically include training necessary to provide for their personal safety when working on or in proximity to the equipment. Supervisors shall also possess the knowledge and skills required of employees subject to their direct supervision. Effective coincident with compliance dates established for revisions to 49 CFR Part 232 (see 66 FR 4101, January 17, 2001), all personnel required to receive training subject to this condition shall have their qualifications for duties,

related to RoadRailer equipment, documented in the same manner provided in that part;

18. CN/IC shall maintain adequate records to demonstrate the current qualification status of all personnel assigned to operate, inspect, test and maintain RoadRailer equipment;

19. CN/IC supervisors or their representatives shall exercise oversight to ensure that all tasks and maintenance/repair practices are performed in accordance with the railroad's written procedures, applicable Standards and Recommended Practices of the AAR, current AAR Interchange Rules and all applicable Federal regulatory requirements;

20. CN/IC shall immediately report any accident involving this equipment to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

21. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

Norfolk Southern Corporation - (NS)
Re: Docket Number FRA-2002-11896

1. This approval applies only to the NS RoadRailer® equipment operation;

2. Interchange will only be permitted with a railroad that has a comparable waiver to operate RoadRailer equipment;

3. RoadRailer equipment shall not be commingled with conventional railroad rolling equipment. RoadRailer units shall only be operated in trains consisting exclusively of RoadRailer units and locomotives;

4. RoadRailer Trains shall be limited to a maximum trailing tonnage as specified in the following tables:

Table 1. – Allowable Total Trailing Tonnage Behind RoadRailers Weighing 28 Tons or More for Various Curve Compensated Grades & Max. Curvature

Curvature	2	4	6	8	10
Grade					
+/-2.2	5200	5200	5200	5100	4400
+/-2.1	5200	5200	5200	5200	4600
+/-2.0	5200	5200	5200	5200	4800
+/-1.9	5200	5200	5200	5200	5100

Note: All grades less than +/-1.9 are 5200 trailing tons

Table 2. – Allowable Total Trailing Tonnage Behind RoadRailers Weighing 18 to 27 Tons for Various Curve Compensated Grades and Max. Curvature

Curvature	2	4	6	8	10
Grade					
+/-2.2	5200	4600	4000	3300	3000
+/-2.1	5200	4800	4200	3500	3100
+/-2.0	5200	5000	4400	3600	3300
+/-1.9	5200	5200	4600	3800	3400
+/-1.8	5200	5200	4900	4000	3600
+/-1.7	5200	5200	5200	4300	3800
+/-1.6	5200	5200	5200	4600	4100
+/-1.5	5200	5200	5200	4900	4400
+/-1.4	5200	5200	5200	5200	4700
+/-1.3	5200	5200	5200	5200	5000

Note: All grades less than +/-1.3 are 5200 trailing tons

Table 3. – Allowable Total Trailing Tonnage Behind RoadRailers Weighing Less than 18 Tons (Essentially Empty) for Various Curve Compensated Grades and Max. Curvature

Curvature	2	4	6	8	10
Grade					
+/-2.2	4300	3700	3000	2600	2400
+/-2.1	4500	3900	3100	2800	2500
+/-2.0	4800	4100	3300	2900	2600
+/-1.9	5000	4300	3400	3000	2700
+/-1.8	5200	4500	3600	3200	2900
+/-1.7	5200	4800	3800	3400	3100
+/-1.6	5200	5100	4100	3600	3300
+/-1.5	5200	5200	4400	3900	3500
+/-1.4	5200	5200	4700	4200	3700
+/-1.3	5200	5200	5000	4500	4000
+/-1.2	5200	5200	5200	4900	4400
+/-1.1	5200	5200	5200	5200	4800

Note: All grades less than +/-1.1 are 5200 trailing tons

5. At no time shall the train length exceed the equivalent of 150 Mark V RoadRailer units;

6. An adapter unit (CouplerMate bogie) must be used between the hauling locomotive and the first RoadRailer unit in the train. The first RoadRailer unit that is placed on the CouplerMate bogie must be loaded to a minimum of 28 tons (total weight of lading, trailer empty weight, and first intermediate bogie) whenever the weight of the train exceeds 1,500 trailing tons;

7. Each adapter unit (CouplerMate bogie) shall be equipped with a toolbox containing appropriate instructions, job aids, and the necessary tools and

equipment required to address problems that may be encountered enroute by the train crew;

8. Trains will only be permitted to pick-up or set-out RoadRailer units at locations specifically designed to perform these functions with mechanical personnel that are trained and on duty for the purpose of assembly and disassembly of RoadRailer units, unless a defective condition develops enroute that would require a RoadRailer unit to be set out of the train;

9. Hazardous materials are permitted to be hauled in RoadRailer units provided: (1) the particular commodities are limited to those listed in Table 2 of 49 CFR 172.504; and (2) the shipment complies with other relevant provisions of the hazardous materials regulations; (3) placarding provisions of 49 CFR Subpart F of Part 172 shall apply during rail movements; (4) cargo tanks, multi-unit tank car tanks, portable tanks and intermodal (IM) portable tanks handling hazardous materials are not permitted in this service;

10. Each RoadRailer adapter unit (CouplerMate bogie) that does not have safety appliances that are compliant with current Federal regulations (with the exception of the handbrake), must be stenciled on each side, in clearly legible letters not less than 6 inches high, "NO SAFETY APPLIANCES" and "DO NOT RIDE," at a location that is visible to a person walking at track level beside the unit;

11. NS shall have instructions that prohibit anyone from riding RoadRailer equipment, unless it is an adapter unit (CouplerMate bogie) specifically designed to be ridden and is not stenciled as required in condition #10. Strict enforcement of this rule is required;

12. New terminal facilities for RoadRailer equipment shall, to the extent feasible, be designed to limit the frequency and length of reverse movements. Reverse movements of RoadRailer equipment, with personnel riding CouplerMates equipped with compliant safety appliances, shall not exceed 10 miles per hour;

13. Whenever a shoving move of RoadRailer equipment is required, the movement shall be protected by either: an individual riding an adapter unit (CouplerMate bogie) specifically designed to be ridden; or by an individual walking with the movement, and the speed of the move shall not exceed that of the individual walking;

14. Maximum speed of a RoadRailer train is 60 MPH, unless: the RoadRailer units are equipped with AAR-1B narrow flange profile (1:40 taper) and maintained in

that condition, whereby the maximum speed shall be 70 MPH;

15. Piston travel at initial terminal shall be 1 ¼ to 3 ½ inches;

16. The air brake shall be considered ineffective at 3 ⅝ inches;

17. NS shall ensure that all personnel (including contractors) responsible for assembly, inspection, testing, maintenance and operation of RoadRailer equipment have been trained and qualified to perform those duties prior to undertaking them, including instruction in the provisions of this waiver pertinent to their duties. Training for railroad operating and mechanical personnel who may encounter the equipment, shall specifically include training necessary to provide for their personal safety when working on or in proximity to the equipment. Supervisors shall also possess the knowledge and skills required of employees subject to their direct supervision. Effective coincident with compliance dates established for revisions to 49 CFR Part 232 (see 66 FR 4101; January 17, 2001), all personnel required to receive training subject to this condition shall have their qualifications for duties, related to RoadRailer equipment, documented in the same manner provided in that part;

18. NS shall maintain adequate records to demonstrate the current qualification status of all personnel assigned to operate, inspect, test, and maintain RoadRailer equipment;

19. NS supervisors or their representatives shall exercise oversight to ensure that all tasks and maintenance/repair practices are performed in accordance with the railroad's written procedures, applicable Standards and Recommended Practices of the AAR, current AAR Interchange Rules, and all applicable Federal regulatory requirements;

20. When planned train makeup is determined for a train scheduled to operate over a given corridor, a "manifest" of planned units specifying number and order of units and their individual weights is generated;

21. Using the "manifest" and working down from the planned head of the consist, identify and locate:
    A) Unit closest to the head of the train that is less than 18 tons and:
    (a) After locating unit closest to the head of the train that is less than 18 tons, add up trailing tonnage on all following units.
    (b) Compare total trailing tonnage of these units to allowable trailing tonnage restrictions by corridor as specified in table 3.
    (c) If total trailing tonnage is in excess of allowable limits, remove

unit(s) that are less than 18 tons and recalculate until reaching acceptable tonnage restriction for corridor or reduce trailing tonnage from rear of train until corridor limit is reached.

(B) Unit closet to the head of the train that is 18 to 27 tons and:
(a) After locating closet to the head of the train that is 18 to 27 tons, add up trailing tonnage on all following units.
(b) Compare total trailing tonnage of these units to allowable trailing tonnage restrictions by corridor as specified in Table 2.
(c) If total trailing tonnage is in excess of allowable limits, remove unit(s) that are 18 to 27 tons and recalculate until reaching acceptable restriction for corridor or reduce trailing tonnage from rear of train until corridor limit is reached.

C) Compare total trailing tonnage of planned train to Table 1 and ensure that total trailing tonnage is within limits for the corridor as specified in Table 1;

22. Restrictive factors (i.e. trailing tonnage, etc.) shall be identified on the train consist. A hard copy of the train consist shall be provided to the train crew;

23. Monitoring and Compliance
   A) All departed train consists shall be monitored for compliance by Triple Crown and NS;
   B) Details of all departed consists and identified restrictive factors shall be maintained on hand at Triple Crown HQ;
   C) Triple Crown shall pursue development of computer-generated edits and electronically stored consists detailing all restrictive factors regarding trailing tonnage.

24. Within 60 days of the date of this letter, NS shall submit to the FRA the following:
   A) Final bulletins/special instructions as published to Triple Crown and other personnel involved in the movements, including clear explanation of methods to be used to determine the weight of the trailers; and
   B) Timetable for development and deployment of electronic system to monitor compliance/flag non-compliance with tonnage restrictions;

25. NS shall immediately report any accident involving this equipment to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

26. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-

compliance with any of the conditions of this waiver;

CSX Transportation - CSX
Re: Docket Number SA-87-4 and PB-87-5

1. This waiver applies only to the CSXT RoadRailer® equipment operation;

2. Interchange will only be permitted with a railroad that has a comparable waiver to operate RoadRailer equipment;

3. RoadRailer equipment shall not be commingled with conventional railroad rolling equipment. RoadRailer units shall only be operated in trains consisting exclusively of RoadRailer units and locomotives;

4. RoadRailer Trains shall be limited to a maximum trailing tonnage of 4,800 tons (equivalent to 125 Mark V RoadRailer® units or 200 PupRailers);

5. At no time shall the train length exceed the equivalent of 125 Mark V RoadRailer units;

6. An adapter unit (CouplerMate bogie) must be used between the hauling locomotive and the first RoadRailer unit in the train;

7. Each adapter unit (CouplerMate bogie) shall be equipped with a toolbox containing appropriate instructions, job aids, and the necessary tools and equipment required to address problems that may be encountered enroute by the train crew;

8. Trains will only be permitted to pick-up or set-out RoadRailer units at locations specifically designed to perform these functions with mechanical personnel that are trained and on duty for the purpose of assembly and disassembly of RoadRailer units, unless a defective condition develops enroute that would require a RoadRailer unit to be set out of the train;

9. Hazardous materials are permitted to be hauled in RoadRailer units provided: (1) the particular commodities are limited to those listed in Table 2 of 49 CFR 172.504; and (2) the shipment complies with other relevant provisions of the hazardous materials regulations; (3) placarding provisions of 49 CFR Subpart F of Part 172 shall apply during rail movements; (4) cargo tanks, multi-unit tank car

tanks, portable tanks and intermodal (IM) portable tanks handling hazardous materials are not permitted in this service;

10. Each RoadRailer adapter unit (CouplerMate bogie) that does not have safety appliances that are compliant with current Federal regulations (with the exception of the handbrake), must be stenciled on each side, in clearly legible letters not less than 6 inches high, "NO SAFETY APPLIANCES" and "DO NOT RIDE," at a location that is visible to a person walking at track level beside the unit;

11. CSXT shall have instructions that prohibit anyone from riding RoadRailer equipment, unless it is an adapter unit (CouplerMate bogie) specifically designed to be ridden and is not stenciled as required in condition #10. Strict enforcement of this rule is required;

12. New terminal facilities for RoadRailer equipment shall, to the extent feasible, be designed to limit the frequency and length of reverse movements. Reverse movements of RoadRailer equipment, with personnel riding CouplerMates equipped with compliant safety appliances, shall not exceed 10 miles per hour:

13. Whenever a shoving move of RoadRailer equipment is required, the movement shall be protected by either: an individual riding an adapter unit (CouplerMate bogie) specifically designed to be ridden; or by an individual walking with the movement, and the speed of the move shall not exceed that of the individual walking;

14. Maximum speed of a RoadRailer train is 60 MPH, unless the RoadRailer units are equipped with AAR-1B narrow flange profile (1:40 taper), and maintained in that condition, whereby the maximum speed shall be 70 MPH;

15. Piston travel at initial terminal shall be 1 ¼ to 3 ½ inches;

16. The air brake shall be considered ineffective at 3 ⅝ inches;

17. CSXT shall ensure that all personnel (including contractors) responsible for assembly, inspection, testing, maintenance and operation of RoadRailer equipment have been trained and qualified to perform those duties prior to undertaking them, including instruction in the provisions of this waiver pertinent to their duties. Training for railroad operating and mechanical personnel who may encounter the equipment, shall specifically include training necessary to provide for their personal safety when working on or in proximity to the equipment. Supervisors shall also possess the knowledge and skills required of employees subject to their direct

supervision. Effective coincident with compliance dates established for revisions to 49 CFR Part 232 (see 66 FR 4101; January 17, 2001), all personnel required to receive training subject to this condition shall have their qualifications for duties, related to RoadRailer equipment, documented in the same manner provided in that part;

18. CSXT shall maintain adequate records to demonstrate the current qualification status of all personnel assigned to operate, inspect, test, and maintain RoadRailer equipment;

19. CSXT supervisors or their representatives shall exercise oversight to ensure that all tasks and maintenance/repair practices are performed in accordance with the railroad's written procedures, applicable Standards and Recommended Practices of the AAR, current AAR Interchange Rules, and all applicable Federal regulatory requirements;

20. CSXT shall immediately report any accident involving this equipment to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

21. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

The Texas Mexican Railway Company - (TM)

Re: Docket Number FRA-2000-7040

1. This waiver applies only to RoadRailer® equipment operating on the TM Railroad;

2. Interchange will only be permitted with a railroad that has a comparable waiver to operate RoadRailer equipment;

3. RoadRailer equipment shall not be commingled with conventional railroad rolling equipment. RoadRailer units shall only be operated in trains consisting exclusively of RoadRailer units and locomotives;

4. RoadRailer Trains shall be limited to a maximum trailing tonnage of 4,800 tons (equivalent to 125 Mark V RoadRailer units or 200 PupRailers);

5. At no time shall the train length exceed the equivalent of 125 Mark V RoadRailer units;

6. An adapter unit (CouplerMate bogie) must be used between the hauling locomotive and the first RoadRailer unit in the train;

7. Each adapter unit (CouplerMate bogie) shall be equipped with a toolbox containing appropriate instruction booklets, operating manuals, job aids, spare parts and the necessary tools required to address problems that may be encountered enroute;

8. Trains will not be permitted to pick-up or set-out units enroute, unless a defective condition demands the removal of a unit;

9. Hazardous materials are permitted to be hauled in RoadRailer units, provided: (1) the particular commodities are limited to those listed in Table 2 of 49 CFR 172.504; and (2) the shipment complies with other relevant provisions of the hazardous materials regulations; (3) placarding provisions of 49 CFR Subpart F of Part 172 shall apply during rail movements; (4) cargo tanks, multi-unit tank car tanks, portable tanks and intermodal (IM) portable tanks handling hazardous materials are not permitted in this service;

10. Each RoadRailer unit must be stenciled on each side, in clearly legible letters not less than 6 inches high, "NO SAFETY APPLIANCES" and "DO NOT RIDE," at a location that is visible to a person walking at track level beside the unit;

11. TM shall have instructions that prohibit anyone from riding RoadRailer equipment, with strict enforcement of this rule;

12. Terminal facilities used in connection with assembly and disassembly of RoadRailer trains shall be designed so that it is not necessary to make reverse movements to enter or depart from those facilities. The only reverse movements of the units would be limited to those needed to accomplish actual coupling of the units and to those required as a consequence of some emergency situation;

13. Shoving RoadRailer equipment should be avoided whenever possible. However, if a shoving move is required, the movement shall be protected by an individual walking with the movement and the speed of the move shall not exceed that of the individual walking;

14. Maximum speed of a RoadRailer train shall not exceed 60 MPH;

15. Piston travel at initial terminal shall be 1 ¼ to 3 ½ inches;

16. The air brake shall be considered ineffective with a piston travel of 3 ⅝ inches or more;

17. TM shall provide adequate training for all operating and mechanical personnel responsible for operating the equipment and performing mechanical inspections, tests, and repairs. The training curriculum shall specifically address all applicable Federal regulatory requirements, as well as the railroad's operating rules, enroute failure procedures, and applicable maintenance standards established by the Association of American Railroads (AAR) Interchange Rules. The training shall also cover any active FRA Safety Advisories regarding RoadRailer Safety (SA-99-03 and SA-99-03A); National Highway Traffic Safety Administration (NHTSA Recall Number 00V-025 and 00V-344); Manufacturer's Service Bulletins (Wabash National SB2000-01 thru SB2000-06); and any AAR Advisories that may be issued. The training shall consist of both classroom and "hands-on" instruction modules designed to impart the knowledge and skills necessary for the performance of the employee's duties. Each individual shall pass a written or oral examination, along with a "hands-on" demonstration of knowledge and skills necessary for handling RoadRailer equipment. Supervisors shall also possess the knowledge and skills necessary in the operation and maintenance of RoadRailer equipment;

18. TM shall maintain adequate records to demonstrate the current qualification status of all personnel assigned to operate, inspect, test, and maintain RoadRailer equipment;

19. TM supervisors or their representatives shall exercise oversight to ensure that all tasks and maintenance/repair practices are performed in accordance with the railroad's written procedures, applicable Standards and Recommended Practices of the AAR, current AAR Interchange Rules, and all applicable Federal regulatory requirements;

20. TM shall immediately report any accident involving this equipment to FRA's Office of Safety Assurance and Compliance in Washington, D.C.;

21. FRA reserves the right to modify or rescind this waiver at any time upon receipt of information pertaining to the safety of rail operations or in the event of non-compliance with any of the conditions of this waiver;

As clarification in light of comments in the docket of this proceeding, it is intended that the training requirements specified at paragraph 17 shall include apprizing employees on

how to avoid risk potentially associated with operating, inspecting, and repairing such equipment by following appropriate procedures, by avoiding unnecessarily placing themselves under or between units, and by ensuring that equipment is properly secured when it is necessary to do so.