§ 74.794 Digital emissions.

(a) (1) An applicant for a digital LPTV or TV translator station construction permit shall specify that the station will be constructed to confine out-of-channel emissions within one of the following emission masks: Simple, stringent or full service.

(2) * * *

(iii) Full service mask: (A) The power level of emissions on frequencies outside the authorized channel of operation must be attenuated no less than the following amounts below the average transmitted power within the authorized channel. In the first 500 kHz from the channel edge the emissions must be attenuated no less than 47 dB. More than 6 MHz from the channel edge, emissions must be attenuated no less than 110 dB. At any frequency between 0.5 and 6 MHz from the channel edge, emissions must be attenuated no less than the value determined by the following formula:

\[ \text{Attenuation in dB} = -11.5([\Delta f] + 3.6); \]

Where:

[\Delta f] = frequency difference in MHz from the edge of the channel.

(B) This attenuation is based on a measurement bandwidth of 500 kHz. Other measurement bandwidths may be used as long as appropriate correction factors are applied. Measurements need not be made any closer to the band edge than one half of the resolution bandwidth of the measuring instrument. Emissions include sidebands, spurious emissions and radio frequency harmonics. Attenuation is to be measured at the output terminals of the transmitter (including any filters that may be employed). In the event of interference caused to any service, greater attenuation may be required.

* * * * *

12. Section 74.798 is added to subpart G to read as follows:

§ 74.798 Digital television transition notices by broadcasters.

(a) Each low power television, TV translator and Class A television station licensee or permittee must air an educational campaign about the transition from analog broadcasting to digital television (DTV).

(b) Stations that have already terminated analog service and begun operating in digital prior to effective date of this rule shall not be subject to this requirement.

(c) Stations with the technical ability to locally-originate programming must air viewer notifications at a time when the highest number of viewers is watching. Stations have the discretion as to the form of these notifications.

(d) Stations that lack the technical ability to locally-originate programming, or find that airing of viewer notifications would pose some sort of a hardship, may notify their viewers by some other reasonable means, e.g., publication of a notification in a local newspaper. Stations have discretion as to the format and time-frame of such local notification.

[FR Doc. 2011–18742 Filed 7–26–11; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
49 CFR Part 571
[Docket No. NHTSA–2009–0175]
RIN 2127–AK84
Federal Motor Vehicle Safety Standards; Air Brake Systems
AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Final rule; response to petitions for reconsideration.

SUMMARY: On July 27, 2009, NHTSA published a final rule that amended the Federal motor vehicle safety standard for air brake systems by requiring substantial improvements in stopping distance performance on new truck tractors. In response, the agency received eight petitions for reconsideration. The agency has already responded to most of the issues raised in the petitions. This document responds to the one outstanding issue raised in the petitions, stopping distance performance requirements at lower initial speeds. Based on testing results and our concern that the current requirements might not be practicable, NHTSA is slightly relaxing the stopping distance requirement for typical loaded tractors tested from an initial speed of 20 mph by increasing the distance from 30 feet to 32 feet and for unloaded tractors tested from an initial speed of 20 mph by increasing the distance from 28 feet to 30 feet. We believe no other changes are necessary.

DATES: This final rule is effective August 1, 2011.

Petitions for reconsideration must be received not later than September 12, 2011.

ADDRESSES: Petitions for reconsideration should refer to the docket number and must be submitted to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590.


For legal issues, you may contact David Jasinski, Office of the Chief Counsel, by telephone at (202) 366–2992, and by fax at (202) 366–3820.

You may send mail to both of these officials at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

Table of Contents
I. Background of the Stopping Distance Requirement
II. Petitions for Reconsideration
III. Testing Program
IV. Response to Petition
V. Technical Correction
VI. Effective Date
VII. Rulemaking Analyses and Notices
VIII. Regulatory Text

I. Background of the Stopping Distance Requirement

On July 27, 2009, NHTSA published a final rule in the Federal Register amending Federal Motor Vehicle Safety Standard (FMVSS) No. 121, Air Brake Systems, to require improved stopping distance performance for heavy truck tractors. This rule reduced the maximum allowable stopping distance, from 60 mph, from 355 feet to 250 feet for the vast majority of loaded heavy truck tractors. For a small minority of loaded very heavy tractors, the maximum allowable stopping distance was reduced from 355 feet to 310 feet. Having come to the conclusion that modifications needed for “typical three-axle tractors,” to meet the improved requirements were relatively straightforward, NHTSA provided two years lead time for those vehicles to comply with the new requirements. These typical three-axle tractors comprise approximately 82 percent of the total fleet of heavy tractors. The agency concluded that other tractors, which are produced in far fewer numbers and may need additional work to ensure stability and control while braking, would need more lead time to meet the requirements. Due to extra time needed to design, test, and validate these vehicles, which included two-axle tractors and severe service tractors, the agency allowed four years lead time for

1 74 FR 37122; Docket No. NHTSA–2009–0063–0001.
these tractors to meet the improved stopping distance requirements.

Requirements in FMVSS No. 121 provide that if the speed attainable by a vehicle in two miles is less than 60 mph, the speed at which the vehicle shall meet the specified stopping distances is four to eight mph less than the speed attainable in two miles. In the July 2009 final rule, the agency used an equation to derive the required stopping distances for vehicles with initial speeds of less than 60 mph.²

\[ S_t = \left(\frac{1}{2} V_0 \cdot t_r \right) + \left(\frac{1}{2} V_0 \cdot \frac{S}{a_0}\right) - \left(\frac{1}{2} a_0 \cdot t_2\right) \]

Where:

- \( S_t \) = Total stopping distance in feet
- \( V_0 \) = Initial Speed in ft/sec
- \( t_r \) = Air pressure rise time in seconds
- \( a_0 \) = Steady-state deceleration in ft/sec²

For the final rule, the agency selected an air pressure rise time of 0.45 seconds, which is equal to the brake actuation timing requirement in FMVSS No. 121. The steady-state deceleration was based on an theoretical deceleration curve in which vehicle deceleration would increase linearly during the rise time portion of the stopping event, followed by constant steady-state deceleration, followed by an instantaneous decrease in acceleration back to zero at the completion of the stop. Table II in FMVSS No. 121 sets forth the stopping distance requirements for speeds from 60 mph down to 20 mph (in increments of 5 mph) for both typical and severe service tractors in the loaded conditions and all tractors in the unloaded condition derived using that formula.

II. Petitions for Reconsideration

NHTSA received eight timely petitions for reconsideration in response to the final rule. Separate petitions were received from the Truck Manufacturers Association (TMA); the Heavy Duty Brake Manufacturers Council of the Heavy Duty Manufacturers Association (HDBMC); Bendix Spencer Foundation Brake LLC (Bendix), a joint venture between Bendix Commercial Vehicle Systems and Dana Corporation; and ArvinMeritor. The agency received four additional petitions supporting and incorporating the TMA petition by reference from Daimler Trucks North America (Daimler), Kenworth Truck Company (Kenworth), Peterbilt Motors Company (Peterbilt), and Navistar Truck Group (Navistar). The petitions focused on four main issues. The main issues included the stopping distance requirements for reduced speeds, the omission of four-axle tractors under 59,600 pounds gross vehicle weight rating (GVWR) from the listed requirements and the date at which the improved stopping distance requirements should apply to those tractors, the manner in which NHTSA characterized the typical three-axle tractor, and the fuel tank fill level testing specification. Additionally, the petitioners requested that NHTSA correct some typographical errors in the regulatory text.

In a final rule published in the Federal Register on November 13, 2009, the agency addressed all of the issues raised in the petition, except those related to stopping distance requirements at reduced speeds.³ We addressed the other issues first because the agency omitted lead time requirements for tractors with four or more axles and a GVWR of 59,600 pounds or less, which would have inadvertently required those vehicles to comply with the upgraded stopping distance requirements on November 24, 2009. The November 2009 final rule responded to issues raised in the petition with these amendments: (1) The agency accepted the recommendation of petitioners TMA, HDBMC, and Bendix and required compliance with the improved stopping distance requirements for tractors with four or more axles and a GVWR of 59,600 pounds or less by August 1, 2013, thereby giving four years of lead time; (2) the agency revised the definition of a "typical three-axle tractor" in the regulatory text in response to concerns raised by TMA and ArvinMeritor to include three-axle tractors having a steer axle gross axle weight rating (GAWR) of 14,600 pounds or less and a combined drive axle GAWR of 45,000 pounds or less; (3) the agency removed the fuel tank loading specification from the test procedure in response to TMA's petition; (4) the agency made two typographical corrections identified by all petitioners.⁴

TMA, HDBMC, and Bendix each raised issues in their petitions regarding stopping distance requirements at reduced test speeds. TMA, HDBMC, and Bendix each stated that the new stopping distance requirements from speeds less than 60 mph could be achieved. The test program and results are described in the technical report, "Experimental Measurement of the Stopping Performance of a Tractor-Semitrailer from Multiple Speeds."⁶

The test plan was to evaluate a tractor that, when tested while traveling at a speed of 60 mph, met the reduced tractor stopping distance requirement of 250 feet for vehicles loaded to GWVR without any margin. That same tractor was then tested at lower initial speeds to compare actual test results with the new requirements in Table II of FMVSS

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² The complete derivation for this equation was included in the docket. See Docket No. NHTSA–2005–21462–0009, at 18–22.


to devise a practical way of adjusting the tractor’s braking performance to provide a zero percent margin of compliance at 60 mph. These results were compared to the new requirements in column (6) of Table II of FMVSS No. 121. The results indicated that the tractor performed with a 20 to 25 percent margin of compliance at initial test speeds between 30 and 60 mph. However, at the two lowest test speeds, the margin of compliance was less—16 percent at 25 mph and eight percent at 20 mph.

When compared to the theoretical deceleration curve discussed in the July 2009 final rule, there were differences. The theoretical deceleration curve has a linear increase in deceleration during the rise time, followed by a constant steady-state deceleration, and then an instantaneous decrease in deceleration to zero at the completion of the stop. In comparison, the test data generally followed this shape with some differences. There was substantial signal noise in the measured deceleration, which has been observed in other heavy vehicle braking tests. Because of this signal noise, the data analyst had to use judgment in determining the completion of the rise time. The steady-state deceleration also was not constant. It appeared to be higher toward the end of the stop as the vehicle speed decreased during the stop. At the end of the stop, the test data indicated a steep ramp down in deceleration to zero, but it was not the instantaneous drop shown in the theoretical curve.

For the unloaded tractor, the rise time decreased to 0.40 seconds from an initial speed of 30 mph to 20.0 ft/sec² at an initial test speed of 20 mph. For the unloaded tests, the steady-state deceleration decreased from 24.7 ft/sec² at an initial test speed of 35 mph to 21.7 ft/sec² at an initial test speed of 20 mph. The reduced steady-state deceleration at these lower test speeds appears to be an influential factor in the loaded tractor’s not meeting the new 20 mph stopping distance of 30 feet and in the reduced margin of compliance for the unloaded tractor tests at the lowest test speeds of 25 and 20 mph.

The testing also provided data on the rise times that were achieved for the two loading conditions at the various test speeds, although they had to be determined based on engineering judgment due to the signal noise. For the tests in the loaded condition, the average rise time based on the six stops at each test speed ranged between 0.39 and 0.56 seconds. The longest average rise time of 0.50 and 0.56 seconds occurred at the initial test speeds of 30 and 25 mph, respectively. From an initial test speed of 20 mph, the average rise time decreased to 0.42 seconds. Otherwise, there was no clear trend for the rise times when compared to initial test speed. Within each set of six stops for each test speed, some showed considerable variability between the six stops and some did not, with standard deviations ranging between 0.11 seconds from an initial speed of 30 mph (minimum 0.37 seconds, maximum 0.60 seconds) to 0.02 seconds from an initial speed of 40 mph (minimum 0.36 seconds, maximum 0.41 seconds).

The rise times for the unloaded tractor tests were substantially lower than those for the loaded tests. There was also much less variability in the unloaded tests compared to the loaded tests, with
average rise times for each six-stop series ranging between 0.27 and 0.32 seconds. The standard deviation for each six-stop series ranged between 0.01 seconds and 0.03 seconds.

The agency did not specifically evaluate ABS cycling during stops. However, based on a review of the wheel speed data, we are able to make some observations. The ABS had the most activity when the tractor was tested in the unloaded condition, in which there were continuous brake pressure modulations for the drive axles throughout all of the stops from all initial test speeds. The intermediate drive axle was equipped with ABS wheel speed sensors and the brake pressures for both drive axles were modulated based upon the wheel slip occurring on this drive axle. For tests in the loaded condition, the wheel speed data for the drive axles did not show any indications of substantial wheel slip on the intermediate drive axle, although brake pressure modulation was observed in about half of the stops, mostly at the beginning of the stop, indicating that ABS did activate in those stops. ABS activity on the steer axle was mixed. Some tests in the loaded condition showed steer axle brake pressure modulations of up to 30 psi followed by stair-stepping pressure increases. As with the drive axle, there was much more ABS activity on the steer axle during the unloaded stops. However, none of the ABS activity on the steer or drive axles was considered to be deep cycling in which the pressure is modulated zero or held at low pressures for a substantial amount of time in response to rapid wheel lockup, and there were no observed lapses in deceleration resulting from ABS activity.

IV. Response to Petition

Because of the lack of test data on the stopping distance for tractors from reduced stopping distance, the agency conducted the testing program to determine the accuracy of the equation from which the agency derived the stopping distances and to determine whether a test tractor could readily achieve the new reduced stopping distances from each of the initial test speeds. Because the agency has conducted testing that verified the stopping distance requirements at reduced test speeds, the agency has decided not to set aside or withdraw the stopping distance requirements at reduced initial test speeds, as requested by TMA and supported by Ms. Vangorder.

Regarding the validity of the stopping distance equation in the final rule that was used to derive the stopping distances from reduced speeds, the agency concludes that the theoretical deceleration profile that formed the basis of the equation had some inaccuracies.9 Although the testing demonstrated some slight inaccuracies in the equation, we have decided not to pursue refinements to the equation at this time to improve its accuracy in order to address the petitions for reconsideration. The results lead us to believe that further testing likely would not suggest a need for any significant changes to the stopping distance requirements nor would it lead to improvements in the robustness of the equation.

Regarding HDBMC’s comments that the rise times used in the final rule would make very fast brake timings necessary and that could result in high braking torques occurring prior to load transfer and deep cycling of the ABS; and as a result those timings would contribute to longer stopping distances, we presume that HDBMC was referring primarily to the tractor’s steer axle that experiences the greatest increase in load transfer during a maximum effort stop. In response to this concern, we note three observations from the agency’s testing. First, the fastest rise times observed in the testing were in the unloaded condition and were approximately 0.30 seconds, which closely matched the average brake application timing of 0.31 seconds that was measured on the steer axle. Second, the brake application timing was not particularly fast on the drive axles (0.41 and 0.42 seconds for the rear and intermediate drive axles respectively), and the rise times for the tractors tested in the loaded condition were similar to the drive axle application timing (average of 0.43 seconds). Third, deep cycling of the ABS system was not observed during any stops in the unloaded and loaded conditions. The test tractor was able to meet nearly all of the stopping distance requirements without particularly fast brake application timing. Further, HDBMC never provided test data in support of its assertion that fast brake timings would be required to meet the stopping distance requirements at lower initial test speeds.

Based on the foregoing, the agency has decided to increase the stopping distances set forth in Table II of FMVSS No. 121 for typical tractors in the loaded condition (column (3)) and for unloaded tractors (column (6)) from an initial speed of 20 mph. For typical tractors in the loaded condition, the agency is increasing the stopping distance from an initial speed of 20 mph from 30 feet to 32 feet. The basis for this change is that the agency’s testing program showed decreased steady-state deceleration performance at this initial test speed compared to what was predicted. The agency based the 30-foot stopping distance on the assumption that lower initial test speeds would always have a higher steady-state deceleration when compared to higher initial test speeds. The tractor tests showed that this was the case between initial test speeds of 60 and 35 mph. However, variations occurred below 25 mph. We believe that braking tests with initial speeds below 35 mph are of such short duration that there is insufficient time to attain and maintain the level of steady-state deceleration performance that is seen from higher initial braking speeds.

The agency is also increasing the stopping distance for tractors in the unloaded condition from an initial speed of 20 mph from 28 feet to 30 feet. In the agency’s testing, the test tractor exceeded the new stopping distances in the unloaded condition from initial test speeds between 60 mph and 30 mph by a margin of greater than 20 percent. At 25 mph, the compliance margin narrowed to 16 percent, and at 20 mph, the compliance margin further narrowed to eight percent. Increasing the unloaded stopping distance from 28 feet to 30 feet would improve the margin of compliance to 14 percent. The eight percent margin of compliance stands out when considering that a tractor that would not have as good of braking performance as the tractor tested, such that it would have lower margins of compliance at higher initial test speeds. As we stated above, we were not able to test an unloaded tractor with a zero margin of compliance from an initial test speed of 60 mph. We are making this change in anticipation that some atypical tractors with lower margins of compliance in the unloaded condition would have difficulty achieving the 28 foot stopping distance.

The agency notes that these changes are being made based on the testing of a tractor that was adjusted to just meet the stopping distance requirements for the stops from 60 mph in the loaded condition. We anticipate that tractors with improved braking performance will be designed to have a greater-than-zero margin of compliance to the new stopping distance requirements so that minor variations in the vehicle manufacturing process and brake components can be tolerated. Thus, we
expect that the stopping distance performance of vehicles at all initial test speeds would be slightly better as well. The agency has received no additional test data after the petitions for reconsideration were filed. We are therefore amending the stopping distances for reduced initial speeds based solely upon the agency’s own test data.

We also wish to clarify that tractors, trucks, and buses must only meet the stopping distance requirements at the initial test speed corresponding to the highest speed attainable by the vehicle. As stated in S5.3.1.1 of FMVSS No. 121, vehicle stops are generally conducted from 60 mph in both the loaded and unloaded conditions. However, if the speed attainable by a vehicle in two miles is less than 60 mph, the vehicle is required to stop from a speed in Table II that is four to eight mph less than the speed attainable in two miles. Thus, FMVSS No. 121 does not require that stops be conducted from all initial test speeds listed in Table II; rather, stopping distance tests are conducted from either 60 mph or from the speed that is four to eight mph less than the highest speed attainable within two miles.

V. Technical Correction

In the notes portion of Table II of FMVSS No. 121, the label for column (6) is “Unloaded Tractors (Bobtail),” which is the stopping distance requirements for unloaded tractors using the service brakes, whereas the label for column (8) is “Unloaded Tractors,” which is the stopping distance requirements for unloaded tractors using the emergency brake. The vehicle loading conditions tested in columns (6) and (8) are identical. The term “Bobtail” is included as a parenthetical to the label for column (6) to make clear that the stopping distance requirements in that column are to be met without a trailer attached. So there is no confusion that the loading condition for column (8) is identical to the loading condition for column (6), we are adding the term “Bobtail” in parenthesis in the label for column (8).

VI. Effective Date

Section 30111(d) of title 49, United States Code, provides that a Federal motor vehicle safety standard may not become effective before the 180th day after the standard is prescribed or later than one year after it is prescribed except when a different effective date is, for good cause shown, in the public interest. This rule makes amendments to regulatory provisions that are subject to phase-in that were set forth in the July 2009 final rule. These amendments would not impose new requirements; rather, these amendments simply adjust the required maximum stopping distances at very low speeds by slightly relaxing them to be consistent with what the agency intended in the April 2007 final rule. Therefore, good cause exists for these amendments to be made effective in the timeframe already in place concerning the effective dates of implementation of the reduced stopping distance requirements in FMVSS No. 121.

VII. Rulemaking Analyses and Notices

A. Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

The agency has considered the impact of this rulemaking action under Executive Orders 12866 and 13563 and the DOT’s regulatory policies and procedures. This action was not reviewed by the Office of Management and Budget under Executive Order 12866. The agency has considered the impact of this action under the Department of Transportation’s regulatory policies and procedures (44 FR 11034; February 26, 1979), and has determined that it is not “significant” under them.

This action completes the agency’s response to petitions for reconsideration regarding the July 2009 final rule amending FMVSS No. 121. This final rule revises the stopping distance table for vehicles from very low speeds to reflect agency’s intent in the July 2009 final rule regarding braking performance level from very low test speeds, it will not have any effect on the agency’s analyses in those areas.

VIII. Regulatory Text

List of Subjects in 49 CFR Parts 571

Imports, Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

In consideration of the foregoing, NHTSA amends 49 CFR part 571 as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for part 571 of Title 49 continues to read as follows:


2. In §571.121, revise Table II to read as follows:

§571.121 Standard No. 121; Air brake systems.

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<th>Service brake</th>
<th>Emergency brake</th>
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<td>PFC 0.9</td>
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</table>

Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit http://docketsinfo.dot.gov/.

C. Other Rulemaking Analyses and Notices

In the July 2009 final rule, the agency discussed relevant requirements related to the Regulatory Flexibility Act, the National Environmental Policy Act, Executive Order 13132 (Federalism), the Unfunded Mandates Reform Act, Civil Justice Reform, the National Technology Transfer and Advancement Act, the Paperwork Reduction Act, and Executive Order 13045 (Protection of Children from Environmental Health and Safety Risks). As today’s rule merely makes minor changes in the stopping distance at lower speeds to reflect agency’s intent in the July 2009 final rule regarding braking performance level from very low test speeds, it will not have any effect on the agency’s analyses in those areas.
On and after the effective date and timeReached or is projected to be reached. The NMFS is required, under§635.28(a)(1), to file a closure notice with the Office of the Federal Register for publication when a BFT quota is reached or is projected to be reached. On and after the effective date and time of such notification, for the remainder of the fishing year, or for a specified period as indicated in the notification, fishing for, retaining, possessing, or landing BFT under that quota category is prohibited until the opening of the subsequent quota period or until such date as specified in the notice.

The 2011 BFT quota specifications established a quota of 1.4 mt of large medium and giant BFT (measuring 73 inches curved fork length or greater) to be harvested in the northern area, i.e., north of 39°18′ N. lat. (off Great Egg Inlet, NJ) by vessels permitted in the HMS Angling or Charter/Headboat category (while fishing recreationally) must cease at 11:30 p.m. local time on July 29, 2011. Limited catch and release is permissible as specified under §635.26(a) and described below. This action is taken consistent with the regulations at§635.28(a)(1). The intent of this closure is to prevent overharvest of the Angling category northern area trophy BFT subquota.

Anglers are reminded that all non-tournament BFT landed under the Angling category quota must be reported within 24 hours of landing either online at http://www.hmspermits.gov or by calling (888) 872–8862. In Maryland and North Carolina, vessel owners must report their recreational tuna landings at state-operated reporting stations. For additional information on these programs, including reporting station locations, please call (410) 213–1351.