

pipeline until the operator completes the repair of these conditions. An operator must calculate the temporary reduction in operating pressure using the formula in section 451.7 of ASME/ANSI B31.4 (ibr, see § 195.3), if applicable. If the formula is not applicable to the type of anomaly or the calculated pressure results in a higher operating pressure, an operator must use an alternative acceptable method to calculate a reduced operating pressure. An operator must treat the following conditions as immediate repair conditions:

* * * * *

(j) * * *

(3) *Assessment intervals.* An operator must establish five-year intervals, not to exceed 68 months, for continually assessing the line pipe's integrity. * * *

* * * * *

Issued in Washington, DC, on December 12, 2005.

Stacey L. Gerard,

Associate Administrator for Pipeline Safety.

[FR Doc. 05-24061 Filed 12-12-05; 1:29 pm]

BILLING CODE 4910-60-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA-2005-21462]

RIN 2127-AJ37

Federal Motor Vehicle Safety Standards; Air Brake Systems

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The agency is proposing to amend our air brake standard to improve the stopping distance performance of truck tractors. Based on current safety trend data and brake system technologies for truck tractors, we are proposing to reduce the required stopping distance for these vehicles by 20 to 30 percent. We have tentatively concluded that truck tractors are capable of achieving a reduction in stopping distance within this range with existing technologies.

We also discuss research and request comment concerning improving the braking performance of other types of heavy vehicles, *i.e.*, trailers, straight trucks, and buses. The agency may address improved braking performance

for these other vehicles in a future rulemaking.

DATES: You should submit comments early enough to ensure that Docket Management receives them not later than April 14, 2006.

ADDRESSES: You may submit comments (identified by the DOT DMS Docket Number) by any of the following methods:

- Web site: <http://dms.dot.gov>.

Follow the instructions for submitting comments on the DOT electronic docket site.

- Fax: (202) 493-2251.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the Request for Comments heading under the **SUPPLEMENTARY INFORMATION** section of this document. Note that all comments received will be posted without change to <http://dms.dot.gov>, including any personal information provided. 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://dms.dot.gov>.

Docket: For access to the docket to read background documents or comments received, go to <http://dms.dot.gov> at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

FOR FURTHER INFORMATION CONTACT: The following persons at the National Highway Traffic Safety Administration:

For non-legal issues: Mr. Jeff Woods of the NHTSA Office of Rulemaking at (202) 366-6206.

For legal issues: Mr. Christopher Calamita of the NHTSA Office of Chief Counsel at (202) 366-2992.

You may send mail to both of these officials at the National Highway Traffic Safety Administration, 400 Seventh St., SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Background

II. Safety Issues

III. Heavy Truck Braking Performance

A. NHTSA Research

B. Industry Research

C. Agency Proposal

IV. Benefits and Costs of Improved Stopping Distances

V. Lead Time

VI. Ongoing and Future Research

VII. Request for Comments

VIII. Rulemaking Analyses and Notices

I. Background

On March 10, 1995, we published three final rules as a part of a comprehensive effort to improve the braking ability of medium and heavy vehicles¹ (60 FR 13216 and 60 FR 13287). The major focus of that effort was to improve the directional stability and control of heavy vehicles during braking through antilock brake system (ABS) requirements. However, the 1995 effort also reinstated stopping distance requirements for air-braked vehicles, and established different stopping distances for different types of heavy vehicles. Previous stopping distance requirements for medium and heavy vehicles had been invalidated in 1978 by the United States Court of Appeals for the 9th Circuit because of issues with the reliability of ABS then in use. See, *PACCAR v. NHTSA*, 573 F.2d 632 (9th Cir. 1978) *cert. denied*, 439 U.S. 862 (1978).

The current stopping distance requirements under Federal Motor Vehicle Safety Standard No. 121, *Air brake systems*, as established under the 1995 final rule, are determined according to vehicle type. Under the loaded-60-mph stopping distance requirements of FMVSS No. 121, air-braked buses must comply with a stopping distance of 280 feet, air-braked single-unit trucks must comply with a stopping distance of 310 feet, and air-braked truck tractors must comply with a stopping distance requirement of 355 feet.² Under the unloaded-60-mph

¹ Medium and heavy weight vehicles are hydraulic-braked vehicles over 10,000 pounds gross vehicle weight rating (GVWR) (*i.e.*, trucks and buses), and all vehicles with a GVWR greater than 10,000 pounds equipped with air brake systems (*i.e.*, trucks, buses, and trailers); here after referred to collectively as heavy vehicles. Large trucks are a segment of heavy vehicles and are defined as trucks, including truck tractors, with a GVWR greater than 10,000 pounds.

² For heavy truck tractors (tractors), the current stopping distance test at GVWR is conducted with the tractor coupled to an un-braked control trailer, with weight placed over the fifth wheel of the

stopping distance requirements³ of FMVSS No. 121, air-braked buses must comply with a stopping distance of 280 feet, and air-braked single-unit trucks and air-braked truck tractors must comply with a stopping distance requirement of 335 feet. Under the emergency brake-60 mph stopping distance requirements⁴ of FMVSS No. 121, air-braked buses and air-braked single-unit trucks must comply with a stopping distance of 613 feet, and air-braked truck tractors must comply with a stopping distance requirement of 720 feet.

The stopping distance requirements adopted in the 1995 final rule are generally less stringent than those invalidated by the *PACCAR* decision in 1978. In adopting the requirements, the agency estimated that half of the air-braked truck tractors and a quarter of the air-braked single-unit trucks would meet the stopping distance requirements without modification. However, the stopping distance requirements were an enhancement to the overall braking performance of air-braked vehicles given the newly adopted ABS requirements. The agency determined that the stability and control during braking requirements would result in a majority of the benefits, but estimated that the new stopping distance requirements would prevent annually about 3 vehicle occupant fatalities, 84

vehicle occupant injuries, and \$3.24 million in property damage.

II. Safety Issues

Since the agency established the stability control and stopping distance requirements for heavy vehicles almost ten years ago, data indicate that the involvement of large trucks in fatal and injury producing crashes has slightly declined while vehicle-miles-traveled (VMT) has increased. However, because the number of registered large trucks has increased, the total number of crashes remains high. In 2002:

- 434,000 large trucks were involved in traffic crashes in the U.S.
- 4,542 large trucks were involved in fatal crashes, resulting in 4,897 fatalities (11 percent of all highway fatalities reported in 2002). Seventy-nine percent of the fatalities were occupants of another vehicle, 14 percent were truck occupants, and 7 percent were nonoccupants.
- 130,000 people were injured in crashes involving large trucks. Seventy-seven percent of the injuries were occupants of another vehicle, 20 percent were truck occupants, and 3 percent were nonoccupants.⁵

According to *Large Truck Crash Facts 2001* (report number FMCSA-RI-02-011; provided in the docket for this notice), published by the Analysis Division of the Federal Motor Carrier Safety Administration (FMCSA), the

large truck fatality rate (e.g., the number of fatalities per 100 million VMT) was 60 percent higher than the fatality rate for passenger vehicles (defined as a car or light truck) in 2001. When the FMCSA report considered combination trucks (e.g., tractor and trailer combinations) separately, the fatality rate was nearly double that of passenger vehicles. Conversely, the fatality rate for single-unit trucks was approximately 15 to 20 percent higher than the fatality rate for passenger vehicles. The FMCSA data indicate that for all types of crashes that involve large trucks, trucks with a gross vehicle weight rating (GVWR) over 26,000 pounds are more likely to be involved than other large trucks.

Retail sales data, averaged for 2000 and 2001, indicate that annual sales of medium-duty trucks between 10,001 and 26,000 pounds GVWR were approximately 228,000 units and annual sales of heavy-duty trucks over 26,000 pounds GVWR were approximately 283,000 units. While data indicate that medium-duty trucks make up a sizable portion of the population of large trucks in the U.S. truck fleet, the crash data indicate that the majority of crashes involve heavy-duty trucks with GVWRs over 26,000 pounds, as shown in Table 1. Almost all of the vehicles with a GVWR greater than 26,000 lbs. are air-braked, and over half of those are truck tractors.

TABLE 1.—LARGE TRUCKS IN CRASHES BY GROSS VEHICLE WEIGHT RATING

[FMCSA-RI-02-011, January 2003]

Gross vehicle weight rating	Fatal		Injury		Towaway	
	Number	Percent	Number	Percent	Number	Percent
≤10,000 lbs	2	*	449	1.2	592	1.4
10,001–26,000 lbs	519	10.8	3,772	9.9	4,931	11.7
≥26,001 lbs	4,246	88.6	26,736	70.2	29,941	70.9
Missing**	14	0.3	7,104	18.7	6,795	16.1
Unknown***	12	0.3
Total	4,793	100.0	38,061	100.0	42,259	100.0

* Less than 0.05 percent.

** GVWR was not recorded.

*** GVWR was recorded as "unknown."

One factor contributing to this difference in risk is that, in general, the heavier a vehicle is the longer it requires to stop for a given speed. While large trucks operate on the same roadways as

significantly lighter passenger vehicles, large trucks may take twice as long to stop in instances of panic stop braking. The difference in mass between large trucks and passenger vehicles also

contributes to passenger vehicles incurring greater damage in collisions between such vehicles. Recent developments in brake systems indicate that stopping distance reductions are

tractor, and a 4,500 pound load on the single axle of the trailer. This test method isolates the braking performance of the tractor so that only the performance of the tractor is evaluated. The performance of a tractor in an FMVSS No. 121 stopping distance test does not directly reflect the on-road performance of a tractor semi-trailer

combination vehicle that has braking at all wheel positions.

³ Vehicles are tested at lightly loaded vehicle weight (LLVW).

⁴ Emergency brake system performance is tested with a single failure in the service brake system of a part designed to contain compressed air or brake fluid (see, S5.7.1).

⁵ See *Traffic Safety Facts 2002—Large Trucks*, National Center for Statistics and Analysis (NCSA), report number DOT HS 809 608. The NCSA report uses the term "large trucks," which in practical terms describes the same segment of the vehicle population as "heavy vehicles." A copy is provided in the docket for this notice.

possible for these heavy vehicles that represent the highest crash and fatality risk.

Reductions in stopping distance will, in most cases, result in a reduction in the impact velocity, and hence the severity of a crash. In some cases, reduced stopping distances will actually prevent a crash from occurring, i.e., a vehicle with a reduced stopping distance will stop short of impacting another vehicle. Based on the crash data from a NCSA report,⁶ improvements in stopping distance would provide benefits in crashes with the following geometries: rear-end, truck striking passenger vehicle; passenger vehicle turned across path of truck; and straight path, truck into passenger vehicle (generally side-impact crashes at roadway junctions). The total percentage of all passenger vehicle occupant fatalities for these crash types is 26 percent and on an annual basis resulted in 655 fatalities. In addition, it is possible that some head-on collisions could be reduced in severity, since improvements in the braking capability of large trucks could reduce impact speeds.

III. Heavy Truck Braking Performance

NHTSA has been exploring the feasibility of reducing the stopping distance requirement under FMVSS No. 121 for heavy air-braked vehicles by 20 to 30 percent. We have initially focused on air-braked truck tractors, since the crash data indicate that this vehicle type is most frequently involved in fatal truck crashes. NHTSA's Office of Vehicle Safety Research has been conducting brake research on enhanced crash avoidance capabilities for large trucks. Developments in air disc brakes, enhanced larger capacity drum brakes, electronic controlled brake systems (ECBS), and advanced ABS have contributed to the agency's decision to propose more stringent stopping distance requirements for truck tractors.

⁶ *An Analysis of Fatal Large Truck Crashes*, DOT HS 809 569, June 2003.

A. NHTSA Research

At NHTSA's Vehicle Research and Test Center (VRTC) in East Liberty Ohio, research was initiated in 2002 to compare the performance of air-braked tractors and trailers equipped with a variety of brake system configurations. VRTC tested two conventional air-braked tractors with four different foundation brake⁷ configurations. The brake configurations tested included the following:

- a. Standard brake drums on both the steer and drive axles,
- b. Larger capacity drums on the steer axle and standard drums on the drive axles (drum hybrid),
- c. Air disc brakes on the steer axle and standard drums on the drive axle (disc hybrid),
- d. Air disc brakes on steer and drive axles.⁸

Testing was performed in accordance with the procedure in FMVSS No. 121, which includes testing at lightly loaded vehicle weight⁹ (LLVW) and at GVWR conditions. Each vehicle was tested six times in each configuration at each weight. The VRTC results suggests that the test vehicles would be able to comply with a 20 to 30 percent reduction in the stopping distance requirements at both weight conditions with modifications only to the foundation brake systems.

When tested at the GVWR condition, the data show that these two vehicles performed quite differently in their standard brake configurations with conventional S-cam brakes.¹⁰ With disc

⁷ A foundation brake system is the wheel end portion of a brake system, consisting of friction material (brake lining), an actuating mechanism, and a rotating element (drum or disc).

⁸ For a complete list of the technical specifications used in testing see "Class 8 Truck Tractor Braking Performance Improvement Study: Report—1," DOT HS 809 700 (May 2004). A copy is provided in the docket for this notice.

⁹ LLVW is defined as the empty weight of the truck plus up to 1,500-pound allowance for test driver, vehicle instrumentation, and an optional roll bar structure.

¹⁰ These differences were most likely due to differences in the brake systems aside from the foundation brakes; e.g., differences in brake linings.

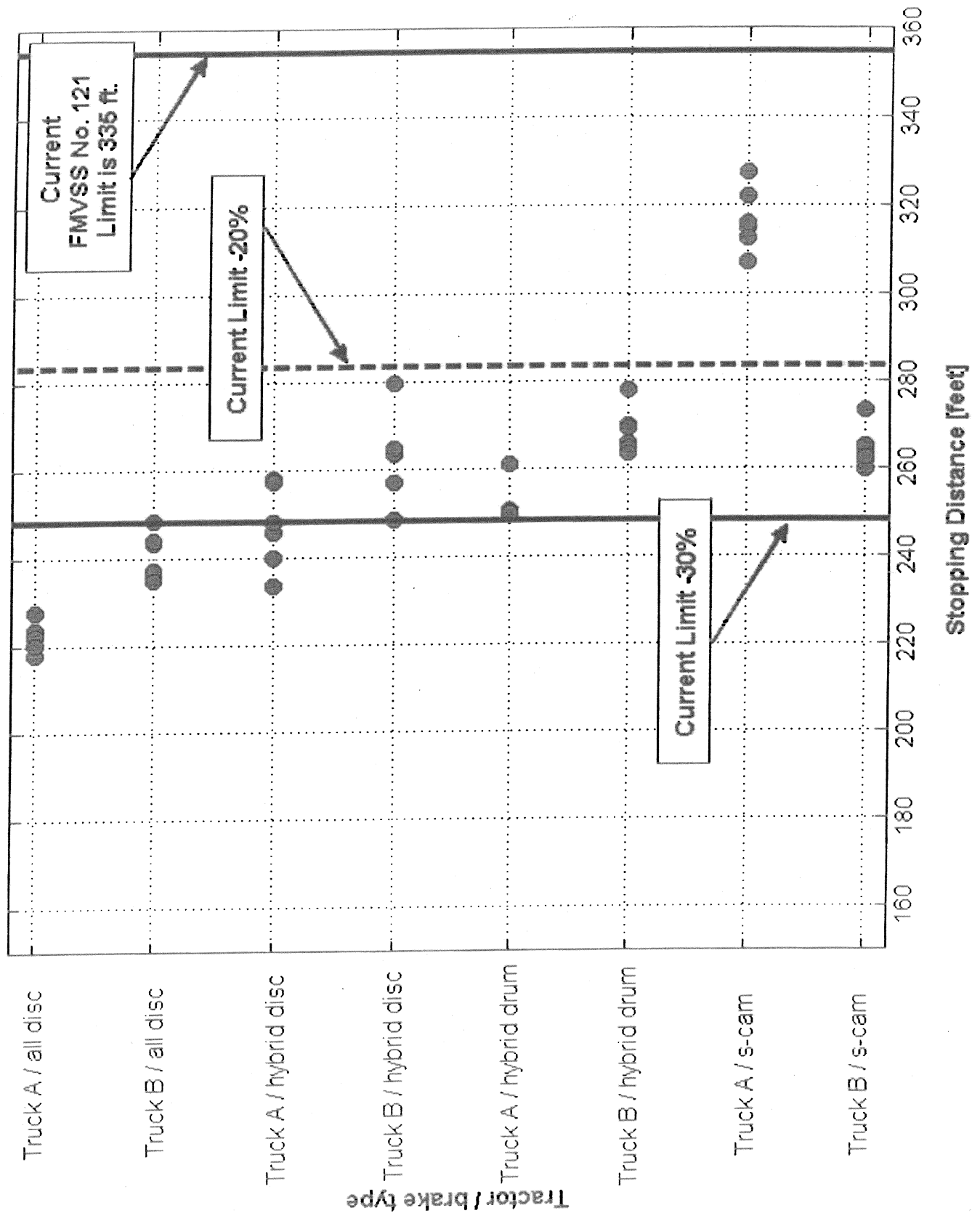
brakes at all wheel positions, both vehicles were able to exceed a 30 percent stopping distance reduction (249 ft) from the current requirements in FMVSS No. 121 at GVWR (355 ft). Both vehicles were able to exceed a 20 percent stopping distance reduction (284 ft) from the current standard using either hybrid system. It is notable that the second test truck was able to meet a 20 percent reduction in the stopping distance requirement when tested at GVWR in its original brake system configuration.

When tested at GVWR condition, the first test truck (Truck A), achieved stopping distances in six tests ranging from 307 to 328 feet (average 317 feet) with its standard foundation brake configuration. When Truck A was equipped with larger capacity drums on the steer axle, its braking distances ranged from 250 to 261 feet (average 252 feet). When configured with disc brakes on the steer axle only, stopping distances for the same truck ranged from 234 to 258 feet (average 247 feet). With disc brakes on both the steer and drive axles, stopping distances for the first test vehicle ranged from 218 to 228 feet (average 222 feet).

In six tests at GVWR condition, the second test truck (Truck B) achieved stopping distances ranging from 260 to 273 feet (average 264 feet) when tested with its standard foundation brake configuration. The agency notes that this vehicle in its standard configuration would be able to meet a 20 percent reduction in the current stopping distance requirement. When Truck B was equipped with larger capacity drums on the steer axle, its braking distances ranged from 264 to 278 feet (average 269 feet). When configured with disc brakes on the steer axle only, stopping distances for the same vehicle ranged from 249 to 280 feet (average 263 feet). With disc brakes on both the steer and drive axle, stopping distances for the second test truck ranged from 235 to 249 feet (average 241 feet). The results are presented in Figure 1 below.

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Figure 1: GVWR Stopping Distances for Two Trucks



In general terms, the VRTC data demonstrate that air disc brakes installed on all brake positions of a tractor would enable typical three-axle tractors to exceed a 30 percent reduction in stopping distance over the requirements currently specified in FMVSS No. 121 at GVWR condition. Both hybrid systems also showed improvements in stopping performance at or near a 30 percent reduction for the first test vehicle. The two hybrid systems did not appreciably change the stopping distances from the baseline

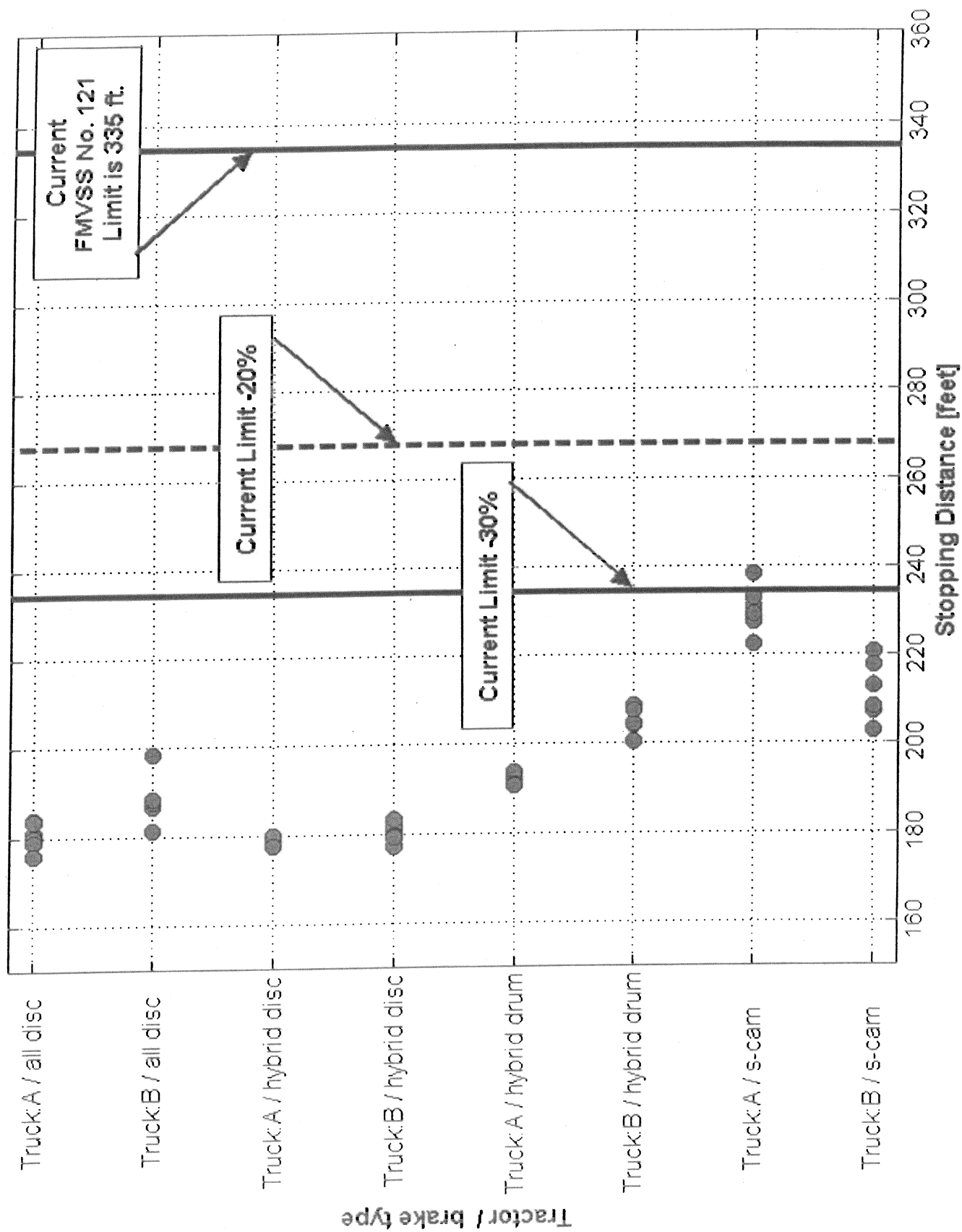
vehicle for the second test truck, but with these configurations the second test truck did exceed a 20 percent reduction in the stopping distance requirements.

The FMVSS No. 121 stopping distance requirement for truck tractors in the LLVW condition is 335 feet. Tests of the two tractors at VRTC confirm that truck tractor braking in the LLVW condition is improved with the addition of ABS. Both truck tractors could meet a 30 percent reduction (235 feet) in FMVSS No. 121 requirements in the

standard foundation brake configuration, although the average of six LLVW stops for one truck tractor was 230 feet (five stops were below 235 feet and one stop was 238 feet). With larger S-cam drum or disc foundation brakes on the steer axle, or with disc brakes at all wheel positions, the average of six stops at LLVW for the two truck tractors ranged from 178 to 205 feet, well below a 235-foot target value. The results are presented in Figure 2 below.

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Figure 2: LLVW Stopping Distances for Two Truck Tractors



vehicles without any other modifications to the vehicles' suspensions or other components. Other data may suggest that changes to suspensions or ABS could further improve braking performance. However, the agency believes that these test results on older tractor models support the feasibility of improving tractor stopping distance performance by a 20 to 30 percent reduction of the current requirement.

FMVSS No. 121 also requires truck tractors to comply with a minimum stopping distance in emergency braking. Under S5.7.1, an unloaded truck tractor must stop at least once in a series of six attempts within the specified distance, from the specified speed, and with a single failure in the service brake system of a part designed to contain compressed air or brake fluid. When emergency braking at a speed of 60 mph, Table II of FMVSS No. 121 specifies a stopping distance of 720 feet.

For current brake system designs, the most extreme failure is typically a failure in the primary reservoir. Essentially, this results in a vehicle having to rely solely on the front brakes to stop.

Aside from examining the impact of various brake configurations on normal stopping, VRTC also subjected the test vehicles to emergency braking under the same brake configurations. VRTC performed the tests after failing the primary reservoir.

TABLE II.—FAILED PRIMARY RESERVOIR STOPPING DISTANCES FOR EACH BRAKE TYPE OF BOTH TRUCK TRACTORS IN THE LLVW LOAD CONFIGURATION

Tractor	Foundation brake type	Minimum (ft.)	Margin of compliance with 720 ft. requirement (percent)	Margin of compliance with 30% reduction (504 ft.)
Truck A	All S-cam drums	636	11.7	-26.7
	Hybrid drums	363	49.6	28.0
	Hybrid disc	276	61.6	45.2
	All disc	294	59.2	41.4
Truck B	All S-cam drums	432	40.0	14.3
	Hybrid drums	365	49.4	27.6
	Hybrid disc	300	58.3	40.5
	All disc	303	57.9	39.9

These results indicate that the same modifications that improve service brake stopping distances also improve emergency braking stopping distances. We tentatively conclude that it is feasible to improve tractor emergency braking stopping distance performance by a 20 to 30 percent reduction of the current requirement.

The VRTC report docketed with this notice contains detailed information on the testing of these truck tractors and an interpretation of the results.¹¹

- The agency welcomes comments or test data on the performance of various foundation brake configurations on truck tractors, trailers, or single-unit vehicles, for both GVWR and LLVW brake testing. Information on the weight of larger capacity drum brakes, versus disc brakes and conventional drum brakes, are also requested.

B. Industry Research

In recent industry testing conducted on a typical truck tractor, larger capacity drum brakes at all wheel positions

performed equal to or better than air disc brakes at all wheel positions as tested by NHTSA. The data on the performance of larger capacity drum brakes on both steer and drive axles for a typical three-axle tractor were provided to NHTSA by two suppliers of heavy truck brake linings, Federal Mogul Corporation and Motion Control Industries, Inc. When compared to the current stopping requirement, a test vehicle utilizing larger capacity drum brakes at all wheel positions experienced stopping distances below a 30 percent reduction to the current standard. The suppliers have provided the results of these tests for placement in the public docket.

The tests were conducted on a three-axle tractor originally manufactured with larger capacity S-cam drum brakes on the steer and drive axles, that was taken from regular fleet service and subjected to FMVSS No. 121-type test requirements by Radlinski and Associates¹² in East Liberty, Ohio. While the testing performed by VRTC simply added larger capacity brake drums to a single axle with no other modifications, Radlinski tested a single vehicle with larger capacity drums on all axles and performed parametric studies on the actuating mechanisms

and GVWR. The seven configurations varied as to the nominal axle weights, brake chamber size and slack adjuster lengths.¹³ Suspensions and related components remained as originally configured by the vehicle manufacturer.

Six stops were made for each of the seven test conditions. The tractor was tested from 60 mph on high friction pavement, loaded to GVWR using the FMVSS No. 121 unbraked control trailer. The test conditions used by Radlinski and Associates were the same as the VRTC test conditions and are the same conditions detailed in FMVSS No. 121.

Each of the configurations achieved an average stopping distance between 206 and 219 ft. A review of the variability among the six stops for each test condition shows that stop-to-stop variability was minimal. On average, the difference between the shortest stop and the longest stop for each of the seven test conditions was 10 feet. Thus the stopping distance performance in each test is observed to have little variation from stop-to-stop.

The performance exhibited by the larger capacity drum brakes on the Radlinski test vehicle, for each test condition, suggests that this vehicle could meet a 30 percent reduction (249 ft) in FMVSS No. 121 stopping distance

¹¹ The docketed report is an interim report detailing straight-line service brake performance. The report also provides comparative information for bobtail braking performance (tractor only with no trailer) and braking performance with conventional air-braked trailers equipped with both S-cam drum brakes and disc brakes. A comprehensive report addressing braking-in-a-curve, emergency braking, and braking performance with conventional trailers will be released at a future date.

¹² Radlinski and Associates is an independent testing and engineering consulting firm that services heavy vehicle and brake component manufacturers.

¹³ Detailed specifications for each of the seven configurations are presented in the Radlinski report, which is provided in the docket for this notice.

requirement. In fact, the performance of this vehicle, in each of the seven brake configurations equaled or exceeded the performance of NHTSA's test vehicles equipped with disc brakes at all wheel positions.

Service brake tests in the LLVW condition were conducted for three of the seven test conditions in the Radlinski tests, and the average of six stops for each of the three test conditions ranged from a low of 163 feet to a high of 169 feet for the three test conditions. Thus this vehicle was capable of far exceeding a 30 percent reduction (235 feet) of the requirements in FMVSS No. 121 (335 feet) for LLVW tests.

According to data provided to NHTSA by the Heavy Duty Brake Manufacturers Council in April, 2004, larger S-cam drum brakes (16.5" x 5" and 16.5" x 6") are installed on the steer axle of approximately 10 percent of newly-manufactured air-braked trucks in the U.S., and wider, extended life (16.5" x 8" and 16.5" x 8.625") S-cam drum brakes are installed on the drive axles of approximately three percent of new air-braked trucks in the U.S.

While the testing relied upon by the agency was limited to three vehicle models, we believe that these models are representative of the truck tractor fleet. However, there may be vehicle models and configurations that would not perform in a manner similar to the test vehicles.

- The agency requests comments on the data and reports generated by Radlinski as well as any data or reports on the use of larger capacity drum brakes.

C. Agency Proposal

The agency is proposing to reduce the stopping distance requirements for the loaded and unloaded service brake distances and emergency brake distances, for truck tractors by 20 to 30 percent. As discussed above, data indicate that truck tractors would be able to comply with a reduction in this range through use of larger drum brakes. Also as explained above, the testing did not include other vehicle modifications that may further optimize a vehicle's braking capabilities. We have tentatively determined that this data justifies the proposed range of reduced distances and request comments on the feasibility of truck tractors to comply with the various stopping distances within the given ranges.

IV. Benefits and Costs of Improved Stopping Distances

The agency believes that by pursuing rulemaking to improve stopping

distance performance, truck manufacturers will re-examine their specifications for brake components and make improvements, particularly on the steer axle brakes, and in other areas as well. In this industry, brake systems are installed according to specifications provided by truck purchasers/trucking fleets. NHTSA's preliminary regulatory impact analysis shows that enhanced brake system specifications will have net cost savings for truck operators after considering property damage savings. However, truck operators do not have this cost-saving information and only a few fleets are purchasing these improved systems. Thus, progress towards improved brake systems is impeded because truck operators are cost sensitive to the initial purchase price and they are reluctant to add different types and sizes of brake components to their specifications. Although truck manufacturers offer improved drum brakes and are introducing air disc brakes, very few fleets are purchasing them. Generally, the trend is to stay with the same brakes that have been used for many decades.

We estimate that 3 percent of the current truck tractors would comply with a 30 percent improved brake performance. The benefits of a 30 percent improvement in stopping distance are estimated to be a reduction of 257 fatalities and prevention of 284 AIS 3–5 injuries among occupants in truck trailer crashes. We estimate that 34 percent of the current truck tractors would comply with a 20 percent improvement in the stopping distance requirements distance without any modification. As such, the proposed 20 percent reduction in stopping distance would save 104 fatalities and prevent 120 AIS 3–5 injuries among occupants in truck trailer crashes.

Reducing stopping distance would significantly reduce property damage. Using a 3 percent discount rate, the agency believes that \$166 million and \$32 million of property damage would be prevented with the proposed 30 percent and 20 percent reduction in stopping distance, respectively.

Potential compliance costs for the proposed 30 percent and 20 percent stopping reduction requirements vary considerably and are dependent upon the types of the brake systems chosen by the manufacturers. Limited testing showed that both larger S-cam drum brakes and disc brakes at all wheel positions could meet the proposed 30 percent and 20 percent reduction in stopping distance. Given the current level of compliance, the average incremental cost per truck tractor would be \$153 for larger S-cam drum brakes

and \$1,308 for disc brakes for the 30 percent reduction in stopping distance and \$108 for larger S-cam drum brakes and \$914 for disc brakes for the 20 percent reduction in stopping distance. We estimate that the total incremental cost for the 30 percent reduction would range from \$20 million to \$170 million dollars and that the total cost for the 20 percent reduction would range from \$14 million to \$119 million dollars.

However, when the prevention of property damage and equivalent lives saved are considered (at a 3 percent discount rate) the 30 percent reduction would result in a net benefit ranging from \$994 million to \$1,144 million. The 20 percent reduction would result in a net benefit ranging from \$320 million to \$425 million.

These costs and benefits were based on analyses of tests using vehicles that the agency believes to be representative of a majority of the market. We recognize that there may be vehicle configurations for which the cost of compliance may be higher. We request comment on the extent that other vehicle configurations would result in greater compliance costs.

For a more detailed discussion of the agency's benefit and cost analysis, please refer to the preliminary regulatory impact analysis that has been placed in the docket for this notice.

V. Lead Time

The current data support pursuing improvements specifically in truck tractor stopping distance performance, as these vehicles have the greatest exposure in fatal crashes among all of the large trucks. Substantial improvements in the braking performance of these vehicles appear feasible with existing technologies. The agency also understands that improvements in truck tractor stopping distance performance may involve more than simply increasing the power of foundation brakes, as changes might be required to suspensions and frames, etc., to handle the higher braking torque without decreasing vehicle durability and safety. However, the agency believes that two years of lead time after a final rule is issued would be adequate lead time for manufacturers to comply with a reduction in stopping distance in the proposed range. Given that vehicles tested by the agency and industry were able to comply with the proposed reductions without modifications other than to the foundation brakes, we believe that this is adequate lead time.

Potential changes to stopping performance requirements for air-braked single unit trucks and buses, and/or for hydraulic braked vehicles over 10,000

lbs. GVWR, will be addressed separately pending the outcome of relevant research data.

VI. Ongoing and Future Research

To date, the agency's research effort has focused on the stopping distance performance of air-braked truck tractors. Experience with the stopping distance performance of heavy duty single-unit trucks has shown that the wide variety of vehicle and body configurations for these vehicles, including wheel bases, axle ratings, and center of gravity heights, may result in a wide range of stopping distance performance. NHTSA intends to perform future research to determine if equipment changes that have demonstrated improvements in truck tractor stopping distance performance can successfully be applied to single-unit trucks as well.

The Office of Vehicle Safety Research is currently conducting a research program involving 50 truck tractors in over-the-road service to field test electronically-controlled air brake systems (ECBS), in combination with air disc brakes, in order to evaluate how these systems perform in normal highway use. As stated above, the stopping distance testing performed by industry and the agency did not consider modifications to a truck tractor other than changes in the foundation brakes. The truck tractors in the ECBS study are coupled to trailers that are equipped with conventional S-cam drum brakes and the trailer braking is by conventional pneumatic control.

Conventional air brake systems use pneumatic means to actuate the brakes and also to signal or control the brake actuation. ECBS uses pneumatic actuation of the brakes (compressed air in reservoirs delivered to brake actuators), but the signaling is performed electronically rather than pneumatically. The electronic signals transmit braking control commands over wires to electro-pneumatic control valves much faster than pneumatic signals flowing through brake tubing, providing quicker brake application and release timing. Also, ECBS can be interfaced with an electronic stability control system to selectively apply the brakes of a single-unit or combination vehicle to provide stability enhancement (yaw control to prevent vehicle spinout and speed reduction to prevent rollover) when instability conditions are detected through on-board sensors and processors. Other capabilities of ECBS include brake lining wear control, brake system status/diagnostic monitoring, and brake force proportioning to balance the brake

forces according to the load being carried.

At present, ECBS is found more commonly on European commercial vehicles whereas market penetration in the U.S. has been low. In the U.S. market, trucking fleets play a much larger role in the specification of truck equipment than in Europe, and the complexity and cost of ECBS has contributed to U.S. fleets not purchasing these systems.

All of the ECBS that are currently in use on the road, both in Europe and the U.S., have full, split-system pneumatic redundancy. For ECBS to be economically viable in the U.S. market, it is possible that a different configuration would be needed with regard to pneumatic redundancy (i.e., back-up systems that prevent total loss of braking in the event of a partial brake system failure). The ECBS research and testing that is ongoing in the U.S. is in part being conducted to determine the reliability of electronic brake control, so that the agency will be better able to evaluate the safety of future, less expensive ECBS configurations that may be more acceptable to the U.S. fleet.

Results from the agency's ECBS research are expected to be published in mid-2005. While the agency believes that ECBS may provide some modest stopping distance reductions on heavy vehicles because of faster brake application timing, at this time the agency anticipates that the greatest improvements in stopping distance performance will be achieved through the application of more powerful foundation brakes. Therefore, ECBS was not considered for the proposal in this document.

The agency is unaware of performance data for systems using ECBS with proportional brake force control, but welcomes comments on this subject as well.

Additional vehicle testing is scheduled at VRTC through 2005 including air-braked single unit trucks and a variety of hydraulic-braked single-unit trucks and buses with GVWRs over 10,000 pounds. NHTSA will focus near-term research on typical configurations of single-unit trucks. Results of planned testing are not likely to be available until mid-2005, with additional test reports provided as the work is completed.

- In advance of the agency completing research on the braking performance of single-unit trucks, we are soliciting comments and data on potential improvements in this area.

NHTSA's Office of Vehicle Safety Research is also conducting research of dynamometer brake testing as specified

in FMVSS No. 121. Under the requirements in S5.4 of FMVSS No. 121, trailer brakes are required to meet the brake retardation force requirements in S5.4.1, and all air brakes are required to meet the fade and recovery requirements in S5.4.2 and S5.4.3. Since there are no stopping distance requirements for trailer service brake systems in the standard, the dynamometer requirements serve to ensure adequate braking capability for trailer foundation brakes. The research will determine in part the performance of S-cam drum and air disc foundation brakes relative to the existing dynamometer requirements in FMVSS No. 121. The agency expects that this research will be completed (and a report published) by mid-2005.

Results of the dynamometer testing will assist the agency in determining if the dynamometer requirements in FMVSS No. 121, including brake retardation force and fade and recovery, should be considered for revision. Potentially, changes in either series of requirements could affect trailer braking systems or the fade and recovery requirements for any foundation brake used in truck, bus, or trailer air brake systems. Improvements to stopping performance requirements for tractors, involving steer axle braking power, may not benefit from changes to dynamometer requirements since the dynamic loading (weight transfer to the axle during hard braking) of steer axles can far exceed the static axle loading on which the dynamometer testing is based.

- The agency requests data from dynamometer tests conducted on standard and larger S-cam drum brakes and air disc foundation brake assemblies from all types of air-braked vehicles.

Finally, brake suppliers have provided the agency with limited information on enhanced ABS systems that have the capability of providing electronic stability control through selective application of brakes. The enhancement to the ABS is the ability to apply air and then use ABS modulator valves to hold off the brakes at certain wheels, so that selective braking is achieved. The stability control system is activated when a vehicle instability condition is detected by on-board sensors (yaw rate [vehicle spin], steering angle, etc.). The agency believes that such systems may provide many of the electronic stability control functions enabled by installation of ECBS but at lower cost. The agency is not aware that such systems would have substantial benefits in stopping distance

performance but welcomes comments on this issue.

While data from on-going and planned research may demonstrate that additional reductions to the stopping distance requirements are possible for all air-braked vehicles to varying degrees, the agency believe that the current data supports the proposed reduction in distances for truck tractors.

VII. Request for Comments

How Can I Influence NHTSA's Thinking on This Document?

In developing this document, we tried to address the concerns of all our stakeholders. Your comments will help us improve this rule. We invite you to provide different views on options we propose, new approaches we have not considered, new data, how this document may affect you, or other relevant information. We welcome your views on all aspects of this document, but request comments on specific issues throughout this document. We grouped these specific requests near the end of the sections in which we discuss the relevant issues. Your comments will be most effective if you follow the suggestions below:

Explain your views and reasoning as clearly as possible.

- Provide solid technical and cost data to support your views.
- If you estimate potential costs, explain how you arrived at the estimate.
- Tell us which parts of this document you support, as well as those with which you disagree.
- Provide specific examples to illustrate your concerns.
- Offer specific alternatives.
- Refer your comments to specific sections of this document, such as the units or page numbers of the preamble, or the regulatory sections.
- Be sure to include the name, date, and docket number with your comments.

In addition to responses to issues and questions raised above, the agency requests comments on the following issues and questions.

1. Comment on the general need for improved stopping distance requirements for air-braked truck tractors.
2. Provide comments on reducing stopping distances (at GVWR and LLVW) for tractors by 20 percent compared to the current FMVSS No. 121 requirement. Provide comments on reducing stopping distance for truck tractors by 30 percent.
3. Comment on the lead time to implement improvements on production vehicles required to comply

with a 20 percent reduction; a 30 percent reduction.

4. Describe the vehicle modifications that are likely needed to reduce truck tractor stopping distance by 20 percent; 30 percent. Include the pros and cons of larger drum brakes and disc brakes, driver and vehicle purchaser acceptance, component/system weight and cost, vehicle alterations or engineering requirements, maintenance considerations, and other in-service issues. If possible, relate past experience with the application of similar brake system enhancements to European or North American air-braked trucks and buses.

5. Provide comments or data to identify any brake balance issues that may occur if truck tractors with more powerful foundation brakes are used in the existing trailer fleet. Again, relating experience with in-service tractors would be beneficial.

6. Please comment on any margin of compliance issues for tractors as related to the current effort to improve their stopping distance performance.

7. Describe any efforts that have been undertaken to improve single-unit truck braking performance. For example, many hydraulic-braked medium-duty trucks are now equipped with disc brakes at all wheel positions. Are there any similar efforts to improve the braking performance of heavy-duty air-braked single-unit trucks? Also, provide data if you believe there are single-unit truck configurations for which stopping distance improvements may be difficult to achieve.

8. Describe developments in ECBS and advanced ABS, and how these systems would have a positive effect on truck safety. Please quantify the benefits from these technologies in achieving the agency goal of reducing heavy vehicle stopping distances. How close are these systems to commercial application in the U.S. and what is the expected cost and acceptance by trucking fleets?

9. Provide data or information on dynamometer testing that would assist the agency in determining if the FMVSS No. 121 dynamometer requirements should be revised. Describe changes to the dynamometer requirements that could benefit heavy vehicle safety, or conversely, could have a negative effect and therefore should be avoided. Quantify additional costs, for testing or otherwise, associated with suggested changes to the dynamometer test requirements.

10. Provide comment and /or data on the extent to which the tractors tested by NHTSA and Radlinski & Associates cited in this NPRM are representative of the current vehicle fleet.

How Do I Prepare and Submit Comments?

Your comments must be written and in English. To ensure that your comments are filed correctly in the Docket, please include the docket number of this document in your comments.

Your comments must not be more than 15 pages long. (49 CFR 553.21) NHTSA established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments. There is no limit on the length of the attachments.

Please submit two copies of your comments, including the attachments, to Docket Management at the address given above under **ADDRESSES**. You may also submit your comments to the docket electronically by logging onto the Docket Management System (DMS) Web site at <http://dms.dot.gov>. Click on "Help & Information" or "Help/Info" to obtain instructions for filing your comments electronically. Please note, if you are submitting comments electronically as a PDF (Adobe) file, we ask that the documents submitted be scanned using Optical Character Recognition (OCR) process, thus allowing the agency to search and copy certain portions of your submissions.¹⁴

How Can I Be Sure That My Comments Were Received?

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail.

How Do I Submit Confidential Business Information?

If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the Chief Counsel, NHTSA, at the address given above under **FOR FURTHER INFORMATION CONTACT**. In addition, you should submit two copies, from which you have deleted the claimed confidential business information, to Docket Management at the address given above under **ADDRESSES**. When you send a comment containing information

¹⁴ Optical character recognition (OCR) is the process of converting an image of text, such as a scanned paper document or electronic fax file, into computer-editable text.

claimed to be confidential business information, you should include a cover letter setting forth the information specified in NHTSA's confidential business information regulation (49 CFR Part 512).

Will the Agency Consider Late Comments?

NHTSA will consider all comments that Docket Management receives before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, the agency will also consider comments that Docket Management receives after that date. If Docket Management receives a comment too late for the agency to consider it in developing a final rule (assuming that one is issued), the agency will consider that comment as an informal suggestion for future rulemaking action.

How Can I Read the Comments Submitted by Other People?

You may read the comments received by Docket Management at the address given above under **ADDRESSES**. The hours of the Docket are indicated above in the same location.

You may also see the comments on the Internet. To read the comments on the Internet, take the following steps:

1. Go to the Docket Management System (DMS) Web page of the Department of Transportation (<http://dms.dot.gov>).
2. On that page, click on "simple search."
3. On the next page (<http://dms.dot.gov/search/searchFormSimple.cfm>) type in the docket number shown at the beginning of this document. Example: If the docket number were "NHTSA-1998-1234," you would type "1234." After typing the docket number, click on "search."
4. On the next page, which contains docket summary information for the docket you selected, click on the desired comments. You may download the comments. Although the comments are imaged documents, instead of word processing documents, the "pdf" versions of the documents are word searchable.

Please note that even after the comment closing date, NHTSA will continue to file relevant information in the Docket as it becomes available. Further, some people may submit late comments. Accordingly, the agency recommends that you periodically check the Docket for new material.

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the

comment (or signing the comment, 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://dms.dot.gov>.

VIII. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

Executive Order 12866, "Regulatory Planning and Review" (58 FR 51735, October 4, 1993), provides for making determinations whether a regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and to the requirements of the Executive Order. The Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budget impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

This rulemaking document was reviewed by the Office of Management and Budget under E.O. 12866. This rulemaking is significant under E.O. 12866 and the Department's Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). As discussed above, we estimate that the total cost for the 30 percent reduction would range from \$20 million to \$170 million dollars and that the total cost for the 20 percent reduction would range from \$14 million to \$119 million. We also estimate that the net benefits (at a 3 percent discount rate) range from \$994 million to \$1,144 million for the 30 percent reduction and from \$320 million to \$425 million for the 20 percent reduction. For a complete discussion of the benefits and costs see the preliminary regulatory impact analysis that has been placed in the docket for this rulemaking.

B. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by

the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996) whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions). No regulatory flexibility analysis is required if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

I certify that the proposed amendment would not have a significant economic impact on a substantial number of small entities.

The following is the agency's statement providing the factual basis for the certification (5 U.S.C. 605(b)). If adopted, the proposal would directly affect motor vehicle manufacturers, second stage and final manufacturers, and alterers. North American Industry Classification System (NAICS) code number 336120, Heavy Duty Truck Manufacturing, prescribes a small business size standard of 1,000 or fewer employees. NAICS code No. 336211, Motor Vehicle Body Manufacturing, prescribes a small business size standard of 1000 or fewer employees.

None of the manufacturers of truck tractors would qualify as a small business. Truck tractors are not sold as incomplete vehicles, but are occasionally modified after certification through the addition of auxiliary axles. Businesses modifying certified vehicles are prohibited from knowingly making inoperative any part of a device or element of design installed on or in a motor vehicle or motor vehicle equipment that is in compliance with any applicable FMVSS (49 U.S.C. § 30122). Today's rulemaking, if made final, would not increase the cost of complying with this "make inoperative" prohibition. Accordingly, there would be no significant impact on small businesses, small organizations, or small governmental units by these amendments. For these reasons, the agency has not prepared a preliminary regulatory flexibility analysis.

C. Vehicle Safety Act

Under 49 U.S.C. Chapter 301, *Motor Vehicle Safety* (49 U.S.C. 30101 *et seq.*), the Secretary of Transportation is

responsible for prescribing motor vehicle safety standards that are practicable, meet the need for motor vehicle safety, and are stated in objective terms. 49 U.S.C. 30111(a). When prescribing such standards, the Secretary must consider all relevant, available motor vehicle safety information. 49 U.S.C. 30111(b). The Secretary must also consider whether a proposed standard is reasonable, practicable, and appropriate for the type of motor vehicle or motor vehicle equipment for which it is prescribed and the extent to which the standard will further the statutory purpose of reducing traffic accidents and associated deaths. *Id.* Responsibility for promulgation of Federal motor vehicle safety standards was subsequently delegated to NHTSA. 49 U.S.C. 105 and 322; delegation of authority at 49 CFR 1.50.

The agency carefully considered these statutory requirements in proposing the amendment to FMVSS No. 121. We believe that the proposed amendments to FMVSS No. 121 would be practicable. As explained above, research data indicate that a 20–30% reduction in stopping distance for heavy trucks could be achieved with currently available brake technologies. Further, we believe that the proposed amendment would advance motor vehicle safety. As explained in detail in the preliminary regulatory impact analysis, the proposal potentially would save 104 to 257 lives a year. Finally, the proposed requirements would amend the stopping distance requirements of FMVSS No. 121 for heavy trucks, but would maintain the test procedures currently specified in that standard. These test procedures provide the objective procedures with which industry is currently complying.

D. National Environmental Policy Act

NHTSA has analyzed these amendments for the purposes of the National Environmental Policy Act and determined that if made final, they would not have any significant impact on the quality of the human environment.

E. Executive Order 13132 (Federalism)

The agency has analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 and has determined that it does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The proposed rule would have no substantial effects on the States, or on

the current Federal-State relationship, or on the current distribution of power and responsibilities among the various local officials.

F. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local or tribal governments, in the aggregate, or by the private sector, of more than \$109 million annually (adjusted for inflation with base year of 1995). The proposed rule, if issued as a final rule, could require the expenditure of resources above and beyond \$100 million annually. However, initial agency estimates indicate that manufacturers could comply with the range proposed, for under \$100 million. NHTSA will explore various options based on the response to the public comments. For example, the agency could decide to reduce the stopping distance by 20 percent as opposed to 30 percent.

G. Executive Order 12988 (Civil Justice Reform)

This rule, if made final, would not have any retroactive effect. Under section 49 U.S.C. 30103, whenever a Federal motor vehicle safety standard is in effect, a state may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the state requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 30161 sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

H. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. This rule would not establish any new information collection requirements.

I. Plain Language

Executive Order 12866 requires each agency to write all rules in plain language. Today's rule has been written with that directive in mind, although

FMVSS No. 121, in general, is technical in nature. As such, they may require some understanding of technical terminology. We expect that parties directly affected by today's rulemaking, if made final, i.e., vehicle manufacturers, to be familiar with such terminology.

J. Regulation Identifier Number (RIN)

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

K. Executive Order 13045

Executive Order 13045 applies to any rule that: (1) Is determined to be "economically significant" as defined under E.O. 12866, and (2) concerns an environmental, health or safety risk that NHTSA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

This rulemaking does not concern an environmental health or safety risk that disproportionately affects children.

L. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272) directs us to use voluntary consensus standards in our regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies, such as the Society of Automotive Engineers (SAE). The NTTAA directs us to provide Congress, through OMB, explanations when we decide not to use available and applicable voluntary consensus standards.

There are no relevant voluntary consensus standards available at this time. However, we will consider any such standards when they become available.

M. Privacy Act

Anyone is able to search the electronic form of all submissions received into any of our dockets by the name of the individual submitting the comment or petition (or signing the comment or petition, 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://dms.dot.gov>.

List of Subjects in 49 CFR Part 571

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

In consideration of the foregoing, NHTSA proposes to amend 49 CFR Chapter V as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for Part 571 of Title 49 would continue to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50.

2. Section 571.121 would be amended by revising Table II to read as follows:

§ 571.121 Standard No. 121; Air brake systems.

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Table II Stopping Distance in Feet

Vehicle speed in miles per hour	Service brake				Emergency brake			
	PFC	PFC	PFC	PFC	PFC	PFC	PFC	PFC
0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)		
20.....	32	35	38	[27-30]	[28-32]	83	[60-68]	
25.....	49	54	59	[41-47]	[43-50]	123	[92-105]	
30.....	70	78	84	[59-67]	[62-71]	170	[130-149]	
35.....	96	106	114	[80-91]	[85-97]	225	[175-200]	
40.....	125	138	149	[104-119]	[111-126]	288	[228-260]	
45.....	158	175	189	[132-151]	[140-160]	358	[286-327]	
50.....	195	216	233	[163-186]	[173-198]	435	[353-403]	
55.....	236	261	281	[197-225]	[209-240]	520	[426-486]	
60.....	280	310	335	[235-268]	[249-284]	613	[504-580]	

Note: (1) Loaded and unloaded buses; (2) Loaded single unit trucks; (3a) Unloaded single unit trucks; (3b) Unloaded truck tractors; (4) Loaded truck tractors tested with an unbraked control trailer; (5) All vehicles except truck tractors; (6) Unloaded truck tractors.

Issued on: December 9, 2005.

Stephen R. Kratzke,

Associate Administrator for Rulemaking.

[FR Doc. 05-24070 Filed 12-14-05; 8:45 am]

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