State and location	Community No.	Effective date authorization/cancellation of sale of flood insurance in a community	Current effective map date	Date certain federal assistance no longer available in special flood hazard areas
Southport, City of, Marion County	180161	October 29, 1971, Emerg; May 15, 1984, Reg; July 5, 2005, Susp.	.....do	Do.
Region VII				
Missouri: Caldwell County, Unincorporated Areas.	290788	November 14, 2002, Emerg; July 5, 2005, Reg; July 5, 2005, Susp.	.....do	Do.
Nebraska:				
Pawnee, City of, Pawnee County	310170	June 4, 1975, Emerg; August 1, 1986, Reg; July 5, 2005, Susp.	.....do	Do.
Table Rock, Village of, Pawnee County	310172	May 3, 1993, Emerg; June 2, 2003, Reg; July 5, 2005, Susp.	.....do	Do.

*.....do = Ditto
Code for reading third column: Emerg.—Emergency; Reg.—Regular; Susp.—Suspension.

Dated: June 27, 2005.

David I. Maurstad,

Acting Mitigation Division Director, Emergency Preparedness and Response Directorate.

[FR Doc. 05–12992 Filed 6–30–05; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[DOT Docket No. NHTSA–05–21401]

RIN: 2127–AI43

Federal Motor Vehicle Safety Standards; Transmission Shift Position Sequence, Starter Interlock, and Transmission Braking Effect

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Final rule.

SUMMARY: This document amends the starter interlock requirements of our safety standard on transmission shift position sequence, starter interlock, and transmission braking effect to clarify how the requirements apply to vehicles incorporating emerging technologies. The amendment is intended to facilitate the development of propulsion systems that conserve energy and reduce emissions by stopping the engine (internal combustion engine) when it is not needed. It is also intended to minimize the possibility of crashes in which a driver has mis-shifted into a forward or reverse gear and would be unprepared for the direction of motion by the vehicle when the engine restarts.

DATES: This final rule becomes effective December 28, 2005.

Any petitions for reconsideration of today's final rule must be received by NHTSA not later than August 15, 2005.

ADDRESSES: Petitions for reconsideration should refer to the docket number for this section and be submitted to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may call Mr. William Evans, Office of Crash Avoidance Standards at (202) 366–2272. His FAX number is (202) 366–7002.

For legal issues, you may call Ms. Dorothy Nakama, Office of the Chief Counsel at (202) 366–2992. Her FAX number is (202) 366–3820.

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

SUPPLEMENTARY INFORMATION:

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I. Executive Summary

The existing starter interlock requirement of Federal Motor Vehicle Safety Standard (FMVSS) No. 102 (at S3.1.3) states ''the engine starter shall be inoperative when the transmission shift lever is in a forward or reverse drive position.'' The purpose of this requirement is to prevent injuries and death from the unexpected motion of a vehicle when the driver starts the vehicle with the transmission inadvertently in a forward or reverse gear. Two recently introduced vehicles, the Toyota Prius [1] and the Honda

[1] The Prius is an electric motor-powered vehicle assisted by an internal combustion engine (ICE). When the propulsion system is activated, the

Insight [2], are powered by hybrid/electric systems (the Toyota Hybrid System (THS) and Honda's Idle-stop Technology (IST)) that permit their gasoline engines to stop and restart automatically while the transmission shift lever is in a drive position.

Each manufacturer asked us to interpret S3.1.3 as it applied to these new vehicles. In interpretation letters to Toyota (November 1, 1999) and Honda (January 17, 2001), we concluded that S3.1.3 would not prohibit either system. In each case, we based our interpretation on a determination that the system met S3.1.3's underlying purpose of ensuring that the vehicle will not lurch forward or backward during driver activation of the engine starter because driver activation of the engine starter is inoperative when the transmission shift lever is in a drive position. We also noted that these new systems were more complex than those on vehicles that existed when S3.1.3 was first adopted, and that we planned to conduct rulemaking to clarify FMVSS No. 102 as applied to emerging technologies. Pending completion of the rulemaking, we stated that we would interpret S3.1.3 as requiring that *driver activation* of the engine starter must be inoperative when the transmission shift lever is in a forward or reverse drive position.

In the NPRM (68 FR 26269, May 15, 2003), we proposed to amend the regulatory text of FMVSS No. 102 to make it clear that the engine may start and stop automatically after the driver has activated the vehicle's propulsion system, when the transmission shift lever is in any forward gear. Under the proposed regulatory text, this was also permitted when the shift lever is in Reverse, but only if the vehicle's propulsion system provides, at least, a minimum creep force in Reverse when the engine is stopped, the accelerator is released and the propulsion system is activated.

After carefully considering the public comments, we have decided to adopt a final rule with some changes from the proposal. This final rule amends S3.1.3 to accommodate these new technologies, while preserving the safety purpose of the standard. Although the creep force requirements proposed in the NPRM are not adopted in the final rule, the final rule addresses the same safety problems in a simpler way.

With respect to vehicles with automatic transmissions, the rule makes it clear that, after activation of the vehicle's propulsion system by the driver, the engine may stop and restart automatically when the transmission shift position is in any forward drive gear. The rule prohibits the engine from automatically stopping in reverse gear. When the engine is automatically stopped in a forward drive shift position and the driver selects Reverse, the engine is permitted to restart automatically in Reverse if two conditions are satisfied. The first condition is that the engine must restart immediately whenever the service brake is applied. The second condition is that the engine does not start automatically if the service brake is not applied.

The rule also provides, notwithstanding these limitations, that the engine may stop and start at any time after the driver has activated the vehicle's propulsion system if: (a) The vehicle's propulsion system can propel the vehicle in the normal travel mode in all forward and reverse drive gears without the engine operating, and (b) if the engine automatically starts while the vehicle is traveling at a steady speed and steady accelerator control setting, the engine does not cause the vehicle to accelerate.

II. Notice of Proposed Rulemaking

The notice of proposed rulemaking (NPRM) for an amendment to the starter interlock requirement of Federal Motor Vehicle Safety Standard (FMVSS) 571.102 was published on May 15, 2003 (68 FR 26269). We intended the proposed amendment to preserve the original safety intent of the starter interlock requirement while accommodating the technologies used on vehicles such as the Prius and the Insight. With respect to vehicles with automatic transmissions, the agency proposed regulatory text that made it clear that, after activation of the vehicle's propulsion system by the driver, the internal combustion engine (ICE) is permitted to stop and start automatically while the shift position is in any forward drive gear. The agency also proposed regulatory text providing that the ICE is permitted to stop and start automatically while the shift position is in Reverse, but only in vehicles like the Prius that exhibit creep force in forward and reverse drive gears, regardless of whether the ICE is running. This allows the driver to sense what gear the vehicle is in before pressing the accelerator pedal. This creep force is similar to the creep force that exists on conventional (non-hybrid-electric) ICE/automatic transmission equipped vehicles. Creep force occurs in the direction indicated by the selected shift position and provides enough force to cause motion of a vehicle loaded to its GVWR on a level, paved surface before the service brake pedal is completely released. In the NPRM, we stated that creep force is a cue that indicates to the driver that he or she is in the correct gear, as the driver is releasing the brake and has the best chance of stopping quickly in case of a gear selection error. In the NPRM, we also proposed a test for minimum creep force in vehicles that automatically stopped and started its ICE in Reverse.

For a complete discussion of the safety issues that led to proposed changes to FMVSS No. 102, and how NHTSA sought to address these issues, please refer to the notice of proposed rulemaking at 68 FR 26269 (May 15, 2003).

The comment period for the NPRM ended on July 15, 2003.

III. Public Comments to the NPRM

We received comments from ten sources; Advocates for Highway and Auto Safety (AHAS), American Honda Motor Company (Honda), Ford Motor Company (Ford), Nissan North America, Inc. (Nissan), Association of International Automobile Manufacturers, Inc. (AIAM), International Truck and Engine Corporation (International), DaimlerChrysler Corporation (DaimlerChrysler), New York City Transit (NYCT), Toyota Motor North America, Inc. (Toyota), and Denso International America, Inc. (Denso). The commenters included a consumer advocate, vehicle manufacturers, vehicle manufacturer associations, a city transportation department and manufacturers of controls used in hybrid-electric vehicles.

In general, the comments supported amending FMVSS No. 102 to clarify its requirements and facilitate current and evolving hybrid electric vehicle technologies. However, specific commenters raised a variety of issues

vehicle is powered by the electric motor. The ICE starts and runs when additional motive power is required or when electrical energy is needed to power the motor and/or to charge the propulsion batteries. The ICE is always running at speeds greater than 42 miles per hour. The Prius propulsion system exhibits creep force and is capable of propelling the vehicle in the normal travel mode in all forward and reverse drive gears even when the engine is stopped and behaves like a conventional ICE/automatic transmission-equipped vehicle.

[2] The Insight is an ICE powered vehicle assisted by an electric motor and employs idle-stop technology. The electric motor provides assistance when additional motive power is required during acceleration. The ICE of the Insight automatically stops when the brake is applied and the vehicle is stopped. The Insight restarts when the brake is released. The idle-stop feature is not employed in Reverse and therefore, the ICE does not stop in Reverse. If the ICE is stopped in a forward gear and Reverse is selected, the ICE starts immediately, provided the service brake is applied.

relating to creep force and the conditions under which creep force should be present. The issues raised in the public comments, and NHTSA's response to the comments, are discussed below.

IV. Public Comments and NHTSA's Response

A. Requiring Reverse Creep Force in Vehicles That Allow the ICE To Stop and Start Automatically When the Vehicle's Shift Position Is in Reverse

Both AHAS and AIAM indicated support for NHTSA's proposal to require reverse creep force in vehicles that allow the ICE to stop and start automatically while the vehicle's shift position is in Reverse. AHAS commended the agency for anticipating a safety problem before it reaches a level where increasing deaths and injuries have been sustained by both vehicle occupants and pedestrians.

Ford and NYCT supported NHTSA's efforts to revise the Federal Motor Vehicle Safety Standards (FMVSS) for starter interlock function in order to address the new hybrid-electric vehicle (HEV) propulsion systems. They indicated concern, however, that the proposed rule appears to assume that creep force will help drivers avoid collisions resulting from shifting errors. Ford and NYCT stated there are no historical or experimental data provided in support of such a proposition. Ford further argued that the new specification requiring a creep force was inserted without any analysis or documentation of the real-world benefit. Ford indicated that vehicles equipped with manual transmissions do not have creep force while standing at idle and that several non-HEV models equipped with automatic transmissions actually have reduced or eliminated idle creep force (for fuel economy purposes) by partially disengaging the transmission or reducing engine speed at idle. Ford further argued that by imposing a minimum creep force requirement on HEVs, NHTSA arbitrarily would hold HEVs to a higher standard than many conventional power trains with automatic transmissions and all power trains with manual transmissions. Ford stated that NHTSA has presented no evidence that a vehicle without creep force is less safe than one with creep force.

Toyota commented that it understands that the agency's purpose in measuring and regulating a creep force to GVWR ratio is to develop a method to measure driver observable movement; however, it believes there are other ways to alert the driver that his or her vehicle is in Reverse, such as an audible alarm. Toyota believes that an audible alarm should be allowed as a substitute for reverse creep force.

In response to the comments from AHAS and AIMA, NHTSA notes that it sought to amend S3.1.3 of FMVSS No. 102 in a way that allows for current and new technology and at the same time does not compromise the original safety intent of FMVSS No. 102.

NHTSA acknowledges the comments from Ford and NYCT regarding creep force. Even though NHTSA continues to consider creep force a valuable cue to the driver, it has concluded that the changes necessary to accommodate these and other comments discussed in this document would make the regulatory language unnecessarily complex. Therefore, NHTSA has developed a refocused approach to differentiate between two types of hybrid-electric vehicles: the electric motor-powered vehicle assisted by an internal combustion engine (ICE) (such as the Prius) and the ICE-powered vehicle assisted by an electric motor and that employs idle-stop technology (such as the Insight).

This final rule establishes requirements that address the same objectives of solving the mis-shift problem before it happens but in a way such that we no longer need to regulate creep force. The changes in this final rule clarify how the starter interlock requirement applies to vehicles with emerging technologies while continuing to address the need for safety. We believe the restriction of idle-stop systems to forward gears is simple and appropriate. We have also lessened restrictions on electric motor-powered vehicles assisted by an ICE, thereby maximizing design freedom where appropriate.

B. Applicability to Vehicles Over 10,000 Pounds GVWR

International, a U.S. manufacturer of medium and heavy-duty trucks, school buses and medium duty diesel engines recommended that the proposed changes to the regulation be limited to internal combustion (IC)/electric hybrid vehicles with GVWRs less than 10,000 pounds so the regulation does not inhibit the development of new technology or create an unworkable situation for medium and heavy duty vehicles.

International commented that NHTSA has collected data on light duty hybrid (IC)/electric passenger vehicles, even though the proposed changes would apply to all vehicles. International expressed concern that the proposed changes may not be appropriate for medium and heavy-duty vehicles and there is not enough information or data available at this time on medium and heavy-duty hybrid-electric vehicles (HEVs). International stated that development of HEVs with GVWRs greater than 10,000 pounds has not progressed to the same degree as light duty passenger vehicles. Since HEVs with GVWRs greater than 10,000 pounds have many uses, they have different operating characteristics than lighter HEVs, presenting challenges not addressed by the proposed changes. International also expressed concern that there do not appear to be data addressing whether the proposed creep force requirements are appropriate for vehicles with GVWRs greater than 10,000 lbs. International further stated that NHTSA should also be aware that in addition to IC/electric hybrid vehicles, research is ongoing for IC/hydraulic hybrid medium duty vehicles. Since the proposed changes have been specifically written for IC/electric hybrid vehicles, applying these proposed changes to other types of hybrids could pose problems.

NYCT expressed concern that the proposed rule fails to allow for different configurations possible with electric, hybrid-electric, and fuel cell vehicles. NYCT commented that the proposed rule appears to be based on the characteristics of two parallel hybrid-electric gasoline ICE passenger cars (Toyota Prius and Honda Insight) currently in large-scale production. In addition, NYCT indicated that the survey data provided on creep force in Table 1 of the NPRM (at 68 FR 26274) is limited to passenger cars and light trucks of less than 18,000 lbs. GVWR.

NYCT stated that on conventional ICE vehicles with automatic transmissions, creep force provides an anti-rollback function, an important safety feature, on moderate grades. However, the heavy-duty series hybrid-electric buses currently operated by NYCT have an anti-rollback system without creep force. The propulsion system automatically provides torque to prevent rolling backward when the brakes are released on an ascending grade (and also to prevent rolling forward when the bus is in reverse on a descending grade). However, this feature does not allow the vehicle to move in the selected direction until the accelerator is depressed. NYCT has found this arrangement effective for preventing rollback. However, the proposed rule appears to prohibit this design since the rule requires creep force. NYCT stated that the proposed rule would require NYCT's vehicle suppliers to re-design part of their

propulsion systems. The attendant engineering costs could have a very significant impact on vehicle lifecycle costs for NYCT, particularly since the North American market for heavy-duty hybrid-electric transit buses is currently limited to a few hundred units per year.

In response, NHTSA recognizes the comments from International and NYCT on heavier hybrid vehicles. We realize the NPRM's creep force requirement may conflict with some systems currently used on heavy trucks and buses. In fact, series systems used on some buses, where the ICE is strictly used to generate electrical power and is not connected to the vehicle drive train, would have been prohibited from stopping in Reverse when it was not needed. This would have caused additional changes and exceptions to the proposed language in the NPRM, leading to additional complexity. The issues presented by International and NYCT are solved by new language in this final rule. The new requirements do not create problems for larger vehicles with series hybrid systems and anti-rollback systems and does not affect the development of new technologies.

C. Specifying a Maximum Throttle Opening Regardless of Driver Throttle Input on Idle-Stop Systems During Automatic ICE Starting

In the NPRM, we asked for comment on whether we should require a limit on throttle opening on idle-stop systems when the engine is automatically starting. The limit on throttle opening would prevent vehicle surging when the driver may rapidly remove his foot from the brake and depress the accelerator to full throttle just before or as the engine automatically starts. Although such vehicle surging is not a problem on the Prius and Insight, it was suggested that such a requirement might be necessary for future idle-stop designs.

Comments from AHAS supported the idea that vehicles that allow the ICE to stop and start automatically should not cause sudden acceleration of the vehicle even when the accelerator pedal is fully depressed during ICE automatic starting.

Honda did not agree with new criteria which would limit throttle opening. Honda agrees with NHTSA that it is necessary to design the idle-stop system to prevent sudden surging during normal operation and during failure modes; however, Honda believes that additional criteria may inhibit future idle-stop development. Honda commented that in its system, when the accelerator pedal is pushed quickly and aggressively after the brake pedal is released, the Honda Integrated Motor Assist (IMA) is capable of restarting the ICE quickly. The first engine firing occurs after the brake pedal is released and before the accelerator pedal is depressed. After the brake pedal is released, brake pressure is maintained while the transmission automatically and rapidly shifts to neutral during engine restarting. After the engine has started, the transmission rapidly shifts to Drive and brake pressure is released. The drive train is engaged quickly and electrically controlled to prevent surging engine revolutions and to prevent vehicle surging. Therefore, on the Insight, Honda said it is unnecessary to place additional limits on the throttle. If the engine should fail to start when the brake is released, brake pressure is maintained and the transmission is in Neutral. The starter turns the engine but is limited to a 2 second duration. Honda indicated that there are many ways in addition to controlling the throttle opening, to control the engine revolutions and prevent vehicle surging. Such additional ways include retarding the ignition fire timing and cutting the fuel injection. In the future, idle-stop technology may be applied to vehicles that use Drive By Wire (DBW) systems where throttle opening is easily controlled electronically. However, requiring control of the throttle opening now could mandate specific hardware, such as DBW, which could inhibit other types of advanced technologies.

Nissan agreed it is necessary to consider the unexpected movement of a stopped vehicle in the design process, but opposed a specified maximum throttle position as a means to achieve design goals. Nissan commented that design specific regulations could restrict development of alternative technologies to meet the same goal. For example, another possible method to control unexpected movement during an automatic engine start is to limit the output of the transmission to the drive axles. While the ability of such a system may be equal to or better than the use of an artificial maximum throttle position, it would not be an acceptable alternative if throttle position is regulated. To allow for the broadest range of technologies, Nissan suggested the agency regulate the threshold and response of the vehicle to the given condition, and allow each manufacturer to decide how best to achieve the desired performance.

AIAM supported the need for safeguards to prevent sudden surging of the vehicle when the engine automatically starts.

International indicated that there might be situations in which limiting power might prevent the operator from avoiding a crash. If the vehicle is stopped on railroad tracks or in the middle of an intersection, the ability to rapidly accelerate might allow the operator to avoid a crash. International recommended that the maximum allowable acceleration or jerk of the vehicle during an engine start be limited to the same value as the acceleration or jerk with the engine already running. This limitation would prevent sudden motions that the operator is not used to but would allow full power to be available for emergency maneuvers.

DaimlerChrysler commented that it was in favor of limiting the throttle opening to less than or equal to ¼ throttle.

Toyota commented that in addition to NHTSA's concerns, the situation may arise where a regulation limiting maximum throttle could hinder a driver from escaping a situation in which the driver may have intentionally wanted full throttle. Considering both sides of the issue, Toyota recommended that the agency allow manufacturers to continue developing and incorporating their own means to balance throttle control.

NHTSA notes that a requirement to regulate throttle opening during automatic engine start emerged out of concerns that in future systems, vehicle surging may result when drivers of vehicles equipped with idle-stop systems go from braking to full throttle very quickly, before or while the ICE was in the process of automatically starting. The Honda Insight handles this scenario well, as when the accelerator is fully depressed during automatic engine start, the engine starts and the vehicle gradually accelerates without surging or any unexpected movement. Such a scenario is of no consequence to the Toyota Prius, as actuation of the accelerator to any degree, at any time, will initiate vehicle movement exactly like a conventional non-hybrid-electric vehicle with an automatic transmission, as the electric motor will move the vehicle during situations where the engine is stopped or in the process of automatically starting.

The majority of the comments were in favor of preventing possible vehicle surging in idle-stop systems by allowing manufacturers to continue to design safeguards of their choosing into their systems. The comments indicate that a requirement limiting throttle opening could possibly limit the use of other techniques and designs that would also prevent vehicle surging when the ICE automatically starts during full throttle. Comments also indicated that limiting full throttle might place a driver/vehicle in a dangerous position in cases where full throttle is needed. NHTSA knows that vehicle surging is not an issue for

the Prius or the Insight. NHTSA agrees with comments that anticipated safety issues can be solved by a variety of well-designed approaches. NHTSA concludes that since current systems have addressed this issue and the requirement to limit throttle opening may inhibit other methods and techniques to prevent surging in vehicles with idle-stop systems, no action should be taken on this issue at this time.

D. Requiring a Manual Override To Deactivate the Idle-Stop Feature

In the NPRM, we requested comment on whether FMVSS No. 102 should include a requirement for a manual idle-stop override, to allow the driver to disable the idle-stop system and prevent the engine from automatically stopping in cases such as an idle-stop system malfunction or a delay in automatic starting.

Honda did not agree with NHTSA's proposal, which would require a control that permits the driver to manually deactivate or override the idle-stop system. Honda indicated that it has incorporated a number of fail-safe features in its Integrated Motor Assist system that automatically prevents the idle-stop system from operating due to such conditions as low battery power, cold engine, or brake switch failure. Honda did not think a manual lockout function is needed because it could create unnecessary confusion and opportunities for misuse. Honda believes it is the manufacturer's responsibility to design systems to perform properly under all driving conditions and to be convenient and fail-safe by using automatic techniques that are appropriate for the technology employed. Honda stated that regulating specific features, such as a manual lockout, is not necessary at this time and could restrict some future technologies.

Nissan agreed that the idle-stop system should cease to function in the event of a system malfunction; however, Nissan and the AIAM opposed a requirement for a control that would allow the operator to lock out or turn off the system. Given that an idle-stop system (one that includes diagnostic functions) can automatically cease its function and provide equivalent safety performance without operator control, Nissan does not believe that an external control is necessary for all systems. Additionally, if the system provides a control that would allow the operator to lock out or turn off the system, the improvement in fuel economy, the main purpose of the idle-stop, could be reduced. Nissan concluded that a control allowing the operator to deactivate the system is not needed if the system includes a diagnostic function. AIAM provided similar reasons for their opposition to a manual control for locking out an idle-stop system.

International commented that the engine controller should detect if the system is degrading, then shut down the idle-stop system and provide a ''service engine'' type message. Some fleets and owners/operators prefer to avoid new controls because of added distraction and such a control would rarely be used, which means the operator may forget its location or proper use. Such controls would allow truck and bus drivers to lockout the system based on personal preference, even though it is operating properly, thus eliminating many of the benefits of the system.

DaimlerChrysler indicated that it would expect a manual override to be permitted and not just for malfunctions. In the override mode, the transmission and engine control system would meet the current FMVSS No. 102 requirements. One minute would seem like a reasonable time in ''auto stop'' mode before an ''auto start'' should occur. This could accommodate most traffic signal stops or pauses in traffic. DaimlerChrysler also commented it assumes that manual, as well as, automatic overrides of this engine control strategy would be permitted. For example, during high and low ambient temperature conditions, it may be advantageous to automatically override the ''auto stop'' feature to permit use of air conditioning, defroster, electrically heated seats, or to recharge a discharged battery.

Toyota's comments expressed concerns that requiring an idle-stop override would allow consumers to disable the idle-stop system and negate its environmental benefits. Toyota stressed that manufacturers already design their own safeguards to address malfunctions or excessive automatic starting times. Different manufacturers may use different strategies and regulating this area, at this time, may inhibit introduction of new technologies. In order to advance the introduction of idle-stop technology, Toyota stated its belief that the agency should continue to allow manufacturers to design in their own algorithms to address these concerns. For example, Toyota's algorithms ensure the vehicle continues to be operational if there is a problem with the hybrid system. In Toyota's designs, the vehicle reverts to an ''engine on'' mode, during which the vehicle's engine remains on until the ignition is turned off, similar to current conventional internal combustion engine vehicles.

In response, NHTSA notes that it raised the issue of a manual override in the NPRM as there were concerns that as vehicles equipped with idle-stop systems age, a delay in ICE restarting may develop. NHTSA anticipates that the idle-stop feature will eventually become commonplace on a significant number of conventional non-hybrid vehicles. Delays in vehicle restarting, as well as inoperable vehicles due to malfunctioning idle-stop systems is a potential future safety concern. NHTSA cannot predict the design of these future systems nor the automatic overrides they may include. A manual override requirement would provide a measure of safety until such automatic overrides and their performance tests/criteria could be defined. The majority of commenters did not agree that an idle-stop system manual override was necessary. However, comments did indicate that automatic overrides may be important. Honda has addressed the issue of overriding the idle-stop system in its design of the Insight by preventing the engine from automatically stopping during certain malfunctions with the idle-stop system or during conditions when the idle-stop system would not perform well. Therefore, as a result of these public comments, NHTSA will not include a requirement for a manual override in this final rule. NHTSA will monitor the performance of idle-stop systems as they develop and take action as necessary.

E. Maximum Time Between Brake Pedal Release and Propulsion System Availability

In the NPRM, we sought comments on whether there should be a limit on the time it takes for an ICE to start automatically once the brake pedal reaches the fully released position. We were concerned that as idle-stop systems age, the time interval between brake pedal release and automatic engine start may become excessive. Delays in engine restarting may have safety implications in situations where vehicles are stopped at intersections or railroad crossings and must accelerate quickly to avoid other traffic or emergency vehicles.

Nissan commented that the time required for the propulsion system to be available to move the vehicle after the brake pedal is released may be different depending on the circumstances and on multiple design and performance target factors. For example, starting the vehicle after a traffic signal changes to green, making a right turn through an intersection, turning left through an

intersection in front of an oncoming vehicle, accelerating or merging into traffic, and moving slowly through congested traffic, may all require different availability and response times from the propulsion system. Nissan indicated that it would decide the allowable time for such a propulsion system to be available to move the vehicle after the brake pedal is released based on an analysis of safety and performance factors and the expected consumer acceptance of the system. Nissan indicated that the agency should not restrict design choices, but rather should allow manufacturers the flexibility to decide the allowable time for its vehicles.

International recommended that the interval should be no longer than the time it takes the operator to move his foot from the brake to the accelerator. When a driver applies the accelerator, his expectation is that the vehicle will accelerate and any delay has the potential to cause confusion or problems. International stated it is likely that the time between brake pedal release and availability of the propulsion system would be a customer acceptance issue and need not be regulated.

NHTSA notes that although commenters thought that the maximum permitted time between brake pedal release and propulsion system availability should be a consideration during design of idle-stop systems, commenters did not favor including a minimum time requirement in the final rule. Commenters stated their belief that this issue was one of customer acceptance and should be left up to manufacturers. NHTSA acknowledges that such delays are not an issue with the Prius and the Insight and the anticipation of such a problem presents no more risk than a non-HEV that develops a hesitation problem during acceleration. Therefore, NHTSA will not amend the regulatory text to include a minimum time requirement for ICE automatic starting.

F. Leaving FMVSS No. 102 Unchanged and Placing New Requirements in a Separate Standard

International recommended that FMVSS No. 102 remain as is and that a new standard be added that would apply to hybrid-electric vehicles. International stated its belief that trying to incorporate hybrid-electric vehicles within FMVSS No. 102 is ''very confusing'' and the confusion will be compounded as other types of hybrid vehicles are developed in the future.

While NHTSA has considered this comment, it has decided not to place the requirements for hybrid-electric vehicle propulsion systems in a separate standard at this time. In the NPRM, exceptions were simply added to existing starter interlock requirements for vehicles to clarify that ICEs may automatically stop and start after driver activation. NHTSA believes that the FMVSS No. 102 language in this final rule is straightforward and easy to understand as written. In the future, if further regulation of hybrid/hybrid-electric vehicle propulsion systems becomes necessary and if such regulation should become complex and confusing, NHTSA may then consider efforts to separate and further clarify requirements.

G. Use of the Term ''Driver Activation''

DaimlerChrysler commented that the current state-of-the-art and research are still evolving and the term ''Driver Activation'' in the Executive Summary (at 68 FR 26270) of the NPRM is not clearly defined. The hybrid-electric vehicles mentioned in the NPRM provide the driver with an alternate means of starting the engine without using the ignition key. DaimlerChrysler recommended that we clarify whether starting the engine without using the ignition key falls under the Automatic Activation heading. At the same time DaimlerChrysler believes the safety purposes of FMVSS No. 102 should be preserved.

In response, ''driver activation'' as used by the agency in this rulemaking, relates to the current state-of-the-art. ''Driver activation'' distinguishes between the driver's initial turning on of the propulsion system (which may include the starting of the vehicle's ICE) versus the propulsion system's automatic stopping and starting of the ICE, which occurs only after the driver's initial activation. Whatever action it takes for the driver to initially activate the vehicle's propulsion system and place the vehicle in a mode where its propulsion system can operate and move the vehicle is considered ''driver activation.'' Driver activation includes such actions as inserting a key into the ignition and turning it, pushing a starter button, and activating a remote keyless starting system.

In the NPRM, the term ''after the driver has activated the vehicle's propulsion system'' was used because in hybrid-electric vehicles such as the Toyota Prius, if certain conditions are met (such as the engine is warm, and the batteries are charged), when the driver turns the ignition on and attempts to start the ICE, the ICE may not start because it may not be needed. Even if the ICE is not needed and doesn't start, the driver is still enabling the propulsion system and when the shift position is placed in a drive gear, the electric motor will provide creep force, as well as power the vehicle when the accelerator is depressed. After the driver has activated the vehicle's propulsion system, the ICE may automatically start and stop as needed. NHTSA believes that the wording used in the Executive Summary and the proposed regulatory text accurately describes driver activation and automatic engine starting in hybrid-electric vehicles.

H. ''Shift Position'' Versus ''Shift Lever Position''

Toyota commented that in the NPRM and in FMVSS 102, the terms ''position of the lever'' and ''shift position'' are used interchangeably. Toyota believes the more appropriate term is ''shift position''. Toyota made this comment because advanced technologies have resulted in vehicles with computerized transmissions and electronic shifters such as joysticks. The ''position of the lever'' for such systems does not always correspond to the ''shift position''. Therefore, Toyota recommends that the agency ensure the term ''shift position'' is used in place of the term ''position of the lever.''

In response, NHTSA agrees with the comment from Toyota. When FMVSS No. 102 was initially written, all transmissions were controlled by mechanically linked shift levers that sequenced serially from one position to the next. If the lever was positioned next to the letter D, the driver knew that the vehicle was in a forward drive gear. Neutral had to be located between Reverse and Drive so that the system would transition through Neutral when changing back and forth between Drive and Reverse. Presently, shift-by-wire technology and electronically controlled transmissions have led to joystick-type shifters where the shifter returns to a resting position after a gear is selected. If the shifter is momentarily pushed to the D position, the transmission shifts to Drive, a Drive telltale light illuminates to let the driver know the transmission is in Drive and the shifter, when released, returns to its rest position. The telltale light, not the shifter position, tells the driver what gear the transmission is in. In such a system, when shifting from Drive to Reverse, the transmission automatically transitions from Drive to Neutral to Reverse.

Such systems are not limited to joysticks. In some systems push buttons and paddle shifters are also used. In all of these cases, the telltale light, not the position of the lever, paddle, or button,

tells the driver of the transmission gear. Whether a paddle, lever or button is used for shifting, the transmission must automatically transition through Neutral when going back and forth between Drive and Reverse. Recently, NHTSA issued an interpretation to Lemf''rder Corporation (August 1, 2002) which submitted diagrams of several joystick sequences. The interpretation evaluated these sequences and discussed whether or not they were in compliance with the sequence requirements of FMVSS No. 102. NHTSA believes that in view of present and emerging shift selection technology, it would be more accurate if the amended portions of FMVSS No. 102 addressed ''shift position'' rather than ''shift lever position.'' The title of FMVSS No. 102 is also amended to read: ''Transmission shift position sequence, starter interlock, and transmission braking effect.'' Portions of the standard that specifically refer to systems with shift levers (S3.1.1.1) will remain as written.

I. Clarification of When the ICE May Stop and Start

Comments from Denso requested clarification of exclusions for the starter interlock requirements as they appear in the regulatory text of the NPRM. Denso indicated that NHTSA's NPRM prescribes conditions under which a vehicle engine may stop and restart automatically when the transmission shift lever is in a forward or reverse drive position, as exclusions to the general starter interlock requirements (S 4.1.3 of the NPRM). Denso stated its belief that the proposed amendment means that the exclusions permit the engine to ''stop and restart'' automatically when the transmission shift lever is kept in a forward position (without shifting the lever from the forward position to a reverse position) in S4.1.3.1, or while the lever is kept in a reverse position (without shifting the lever from the reverse position to a forward position) in S4.1.3.2.

However, Denso stated that in actual driving conditions and depending on system design, the shift lever need not always be in the same position when the engine stops and restarts. For example, the engine may automatically stop when the transmission shift lever is in a forward position and then automatically restart after the lever has been shifted from the forward position to a reverse position. Similarly, the engine may automatically stop when the transmission shift lever is in a reverse position and then automatically restart after the lever has been shifted from the reverse position to a forward position. Denso commented that in the latter two cases, it is not clear that either S4.1.3.1 or S4.1.3.2 should be applied. Denso further stated that it is not clear whether the engine in the two cases is permitted to automatically restart. Therefore, Denso requested that NHTSA review the exclusions to S4.1.3 to clarify its application, considering all transmission shift lever positions.

Denso also commented that S4.1.3.2 of the NPRM would require vehicles having an automatic engine stop/start feature that operates when the vehicle is in reverse gear to meet creep force requirements whenever the transmission shift lever is in a reverse position and requires manufacturers to demonstrate compliance with the creep force requirements by testing the vehicle with the engine stopped. Denso submitted a Table ''Examples of Engine/Motor Operation flow when the Transmission Shift Lever is in a Reverse Position'' (the Table) which provides examples of possible automatic engine and motor operation flow [3] for hybrid-electric vehicles (HEVs) and internal combustion engine only vehicles (ICEVs). Denso indicated that the operational status of the engine and the motor when the transmission shift lever is shifted to the reverse position and when the brake pedal is partially/fully released are classified into ''motor operation only'', ''engine operation only'', and ''simultaneous motor and engine operation''. Denso commented that it is not clear how the proposed rule would be applied to the scenarios, which are shown in the Table and asked NHTSA to clarify how the proposed rule will apply to each case. The Table appears in Denso's comments in DOT Docket No. NHTSA–2003–14907–9.

Denso also asked that regarding the creep force compliance test, according to the Table, the systems that operate by automatically restarting the engine on and before the brake pedal is fully released (scenarios numbers 6 to 8, 11, 12, Nos.13 to 18, Nos. 20 to 22 in the Table) cannot be tested to justify the compliance with the creep force requirement; because it appears that these systems cannot achieve the engine stopped condition specified in S4.1.3.2. Denso wanted advice as to what test procedures would apply to these cases. Denso stated its belief that NHTSA's intent for requiring the creep force is to warn driver of what gear the vehicle is engaged in and asked NHTSA to state the rule more clearly and to address the cases listed in the Table. Moreover, Denso urged NHTSA not to unnecessarily restrict future developments of stop/start technologies.

In response, NHTSA notes that the new language in this final rule states that after the driver has activated the vehicle's propulsion system, the engine may stop and restart automatically when the transmission shift position is in any forward drive gear. When the transmission shift position is in reverse gear, this final rule permits the engine to restart automatically if two conditions are satisfied. Both conditions apply to the situation where the engine is automatically stopped in a forward drive shift position and the driver selects Reverse. The first condition is that the engine must restart immediately when the service brake is applied. The second condition is that the engine does not start automatically if the service brake is not applied. The final rule also provides that the engine may stop and start anytime after the driver has activated the vehicle's propulsion system if the vehicle's propulsion system can propel the vehicle in the normal travel mode in all forward and reverse drive gears without the engine operating and if the engine automatically starts while the vehicle is traveling at a steady speed and a steady accelerator control setting, the engine does not cause the vehicle to accelerate.

The final rule language permits a vehicle like the Insight to automatically stop and start the engine in forward gears; however, when the driver selects Reverse, the engine must start and remain running in Reverse. The final rule language also permits vehicles like the Prius to allow its engine to automatically start and stop anytime after driver activation of the propulsion system. The Prius engine may stop in a forward gear and restart in Reverse or may stop while in Reverse and restart in a forward gear.

Denso asked us to clarify how the proposed rule would apply to each of the scenarios in the Table. Each scenario describes the status of the ICE, electric motor, brake pedal and accelerator while the shift position is in *Reverse*. Denso also asked that we comment and/or clarify how scenarios numbers 6,7,8,11,12,13,14,15,16,17,18,20,21,22 would be tested using the test procedure described in S5 of the NPRM.

The new language that appears in this final rule does not use creep force to distinguish between types of hybrid vehicles and does not include a test for minimum creep force. Therefore, any concerns about how certain scenarios would be tested for minimum creep force are now moot.

[3] Operational status of the engine and the motor having an automatic engine stop and restart function, at each phase, from the time the vehicle is stationary with the brake pedal fully applied, through the time the acceleration pedal is applied.

J. Other Issues Raised in Response to the NPRM

The following five issues were also raised in response to the NPRM.

1. Minimum Creep Force Value of 1.5 Percent of GVWR—DaimlerChrysler commented that the creep force ratio defined as .015 (creep force/GVWR) is a good starting point. Ford commented that there is not enough data to support the specific minimum value of creep force proposed. NYCT expressed concern about the proposal to require a creep force of at least 1.5 percent of GVWR, as Table 1 of the NPRM did not include data from any commercial vehicles.

2. Applicability of the Phrase ''Brake Pedal Released'' to Air Brakes—International commented that air brake systems have different operating characteristics than do hydraulic brake systems. Statements in S4.1.3.2 of the NPRM such as ''before the brake pedal is released'' and ''with the brake pedal released'' have a different interpretation when addressing a vehicle with hydraulic versus air brakes. International also stated that S5.1.7 needs more detail. International asked if the system passes if the device registers in the last .001 inch of pedal movement. International stated that a better test may define this in terms of creep force being present at certain points in the pedal travel or at pedal forces less than a certain value.

3. *Requiring Creep Force in Reverse When the ICE Is Both ''On'' and ''Off''*—International commented that the creep force requirement in reverse gear should apply if the engine is on or off. If a vehicle sits in Reverse for a long time, the engine may start up to recharge the battery or to run the heating and air conditioning systems. Confusion may occur if the driver assumes the vehicle is in a forward gear because the engine is running. Therefore International recommends removing the reference to the state of the combustion engine in the definition of Creep Force (S3) and rewriting S5.1.7 to include testing with the engine off and with the engine on.

4. *Use of the Term ''Electric Motor'' in the Regulatory Text*—International indicated that references to an electric motor in the definition of ''creep force'' (S3) of the NPRM exclude future technologies and will require a change to the regulation with each new technology introduced.

5. *Use of the Term ''Battery'' in the Regulatory Text*—International commented that the reference to the word ''battery'' in S5.1.2 of the NPRM should differentiate between the starter battery and the propulsion battery (propulsion energy storage system). A 95 percent charge for the starter battery is satisfactory. A suggested state of charge for the propulsion battery is its nominal low limit.

NHTSA notes that these five issues were raised in response to NPRM language that proposed to specify and regulate creep force. This final rule removes the use of creep force to distinguish between the two types of hybrid-electric vehicles and removes the performance test for creep force. New language makes the same distinction between the same vehicles with substantially similar language, but in a simpler manner. The new language creates no problems for vehicles equipped with air brakes. In view of the new language that appears in this final rule, the five series of comments addressing creep force issues are no longer applicable.

V. Final Rule

In the NPRM, we proposed to limit the operation of idle-stop systems to forward gears in order to minimize the possibility of vehicle crashes resulting from shifting errors. In an idle-stop equipped vehicle, if the engine is stopped and the driver has mistakenly placed the vehicle in Reverse, there is no cue from creep force and the shifting error may not be realized until the accelerator pedal is pressed and the engine automatically restarts. When the driver presses the accelerator, he may be surprised when the vehicle accelerates rearward rather than forward. Such situations can cause property damage, as well as, injuries and deaths to pedestrians. Allowing idle-stop systems to operate only in forward gears has fewer ramifications, as the driver will learn to associate automatic engine stopping and starting with forward motion.

However, amending Standard 102 to prohibit all vehicles, including hybrid-electric vehicles, from automatically stopping and starting the engine in Reverse would have no safety purpose for a vehicle like the Prius in which engine starting has no effect on its low speed operation. Therefore, a distinction should be made between the two types of hybrid vehicles. In the NPRM, the agency attempted to distinguish between these two types of hybrid-electric vehicles (electric motor-powered vehicle assisted by an ICE (such as the Prius) vs. the ICE-powered vehicle assisted by an electric motor (such as the Insight)) by requiring vehicles that allow its ICE to automatically stop and start in Reverse to exhibit creep force in Reverse when the engine is stopped. The Insight does not stop the engine in Reverse and if the engine is automatically stopped in a forward gear, it starts immediately when Reverse is selected and the service brake is applied. The Prius exhibits creep force in reverse with its ICE stopped and therefore, the requirement permitted both hybrid vehicle designs while limiting the operation of idle-stop systems for conventional vehicles to forward gears only.

Public comments to the NPRM questioned the validity of specifying creep force, raising questions as to conditions under which creep force should be exhibited, and how the proposed amendment would apply to series hybrid-electric systems.[4] Because solutions to the issues raised by public comments would increase the complexity of the regulatory language, we began to consider alternatives that would meet the same objectives that we sought in the NPRM.

A refined, simpler approach was developed and appears in this final rule. This approach makes the same distinction between vehicles as does the NPRM and produces a substantially similar outcome. This final rule generally requires that the engine starter be inoperative when the transmission shift position is in a forward or reverse drive position. However, after the driver has activated the vehicle propulsion system, the engine may stop and start automatically when the transmission shift position is in any forward drive gear. The rule prohibits the engine from automatically stopping in reverse gear. When the engine is automatically stopped in a forward drive shift position and the driver selects Reverse, this final rule permits the engine to restart automatically in Reverse if two conditions are satisfied. The first condition is that the engine must restart immediately whenever the service brake is applied. The second condition is that the engine does not start automatically if the service brake is not applied.

A second exception applies to vehicles like the Prius where unrestricted engine starting introduces no safety issues. The final rule specifies that the engine may automatically stop and start anytime after the driver has activated the vehicle's propulsion system if the vehicle's propulsion system can propel the vehicle in its normal travel mode in all forward and reverse drive gears without the engine operating, and if the engine

[4] The series system discussed is one where vehicle motive power is obtained strictly from electric motors connected to the drive train and the sole purpose of the ICE is to rotate a generator that supplies electrical power to charge batteries and supply electrical power to drive motors.

automatically starts while the vehicle is traveling at a steady speed and a steady accelerator control setting, the engine does not cause the vehicle to accelerate. This new wording makes a distinction between two types of hybrid vehicles (Insight and Prius) as does the NPRM. The final rule permits the idle-stop feature to operate in forward gears for any vehicle but prohibits it from functioning in Reverse unless the vehicle has special characteristics that are specified in simple language. If the engine on an idle-stop equipped vehicle is stopped in a forward gear and the shift position is changed to Reverse, it requires the brake to be depressed before the engine starts. Therefore, if Reverse is selected by mistake, the driver's foot is on the brake and he or she is prepared to stop the vehicle. It also allows for vehicles like the Prius, which behaves like a conventional ICE/automatic transmission equipped vehicle no matter what the status of the ICE. Therefore, this different approach that appears in this final rule makes the same distinction between the same vehicles as does the NPRM and achieves an outcome substantially similar to that in the NPRM but in a simpler manner. The approach in the final rule permits the designs of the Insight and the Prius for which the original interpretations were written. The final rule also permits the designs used on the hybrid-electric Civic, Accord and the redesigned Prius, as well as series hybrid-electric systems used in heavy vehicles such as buses. The final rule imposes no burden on manufacturers of current hybrid vehicles, and allows for flexibility in future designs. Finally, this final rule does not compromise the original safety intent of Standard 102.

VI. Statutory Bases for the Final Rule

We have issued this final rule pursuant to our statutory authority. 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 deaths and injuries resulting from traffic accidents. 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.

As a Federal agency, before promulgating changes to a Federal motor vehicle safety standard, NHTSA also has a statutory responsibility to follow the informal rulemaking procedures mandated in the *Administrative Procedure Act* at 5 U.S.C. Section 553. Among these requirements are **Federal Register** publication of a general notice of proposed rulemaking, and giving interested persons an opportunity to participate in the rulemaking through submission of written data, views or arguments. After consideration of the public comments, we must incorporate into the rules adopted, a concise general statement of the rule's basis and purpose.

The agency has carefully considered these statutory requirements in promulgating this final rule to amend FMVSS No. 102. As previously discussed in detail, we have solicited public comment in an NPRM and have carefully considered the public comments before issuing this final rule. As a result, we believe that this final rule reflects consideration of all relevant available motor vehicle safety information. Consideration of all these statutory factors has resulted in the following decisions in this final rule.

In the NPRM, we proposed to limit the operation of idle-stop systems to forward gears in order to minimize the possibility of vehicle crashes resulting from shifting errors. In an idle-stop equipped vehicle, if the engine is stopped and the driver has mistakenly placed the vehicle in Reverse, there is no cue from creep force and the shifting error may not be realized until the accelerator pedal is pressed and the engine automatically restarts. When the driver presses the accelerator, he may be surprised when the vehicle accelerates rearward rather than forward. Such situations can cause property damage, as well as, injuries and deaths to pedestrians. Allowing idle-stop systems to operate only in forward gears has fewer ramifications, as the driver will learn to associate automatic engine stopping and starting with forward motion.

However, amending Standard 102 to prohibit all vehicles, including hybrid-electric vehicles, from automatically stopping and starting the engine in Reverse would have no safety purpose for a vehicle like the Prius in which engine starting has no effect on its low speed operation. Therefore, we decided to make a distinction between the two types of hybrid vehicles. In the NPRM, the agency attempted to distinguish between these two types of hybrid-electric vehicles (idle-stop/Insight and the Prius) by requiring vehicles that allow its ICE to automatically stop and start in Reverse to exhibit creep force in Reverse when the engine is stopped. The Insight does not stop the engine in Reverse and if the engine is automatically stopped in a forward gear, it starts immediately when Reverse is selected and the service brake is applied. The Prius exhibits creep force in reverse with its ICE stopped and therefore, the requirement permitted both hybrid vehicle designs while limiting the operation of idle-stop systems for conventional vehicles to forward gears only.

Public comments to the NPRM questioned the validity of specifying creep force, raising questions as to conditions under which creep force should be exhibited, and how the proposed amendment would apply to series hybrid-electric systems. Because solutions to the issues raised by public comments would increase the complexity of the proposed amendment, we began to consider alternatives that would meet the same objectives that we sought in the NPRM.

A new and simpler approach was developed and appears in this final rule. This new approach makes the same distinction between the same vehicles as does the NPRM and produces a substantially similar outcome. This final rule amends FMVSS No. 102 to require that the engine starter be inoperative when the transmission shift position is in a forward or reverse drive position. With respect to vehicles with automatic transmissions, the rule permits, after activation of the vehicle's propulsion system by the driver, the engine to stop and restart automatically when the transmission shift position is in any forward drive gear. The rule prohibits the engine from automatically stopping in reverse gear. When the engine is automatically stopped in a forward drive shift position and the driver selects Reverse, this final rule permits the engine to restart automatically in Reverse if two conditions are satisfied. The first condition is that the engine must restart immediately whenever the service brake is applied. The second condition is that the engine does not start automatically if the service brake is not applied.

A second exception applies to vehicles like the Prius where unrestricted engine starting introduces

no safety issues. The final rule specifies that the engine may automatically stop and start anytime after the driver has activated the vehicle's propulsion system if the vehicle's propulsion system can propel the vehicle in its normal travel mode in all forward and reverse drive gears without the engine operating, and if the engine automatically starts while the vehicle is traveling at a steady speed and a steady accelerator control setting, the engine does not cause the vehicle to accelerate. This new wording makes a distinction between two types of hybrid vehicles (Insight and Prius) as did the NPRM. The final rule permits the idle-stop feature to operate in forward gears for any vehicle but prohibits it from functioning in Reverse unless the vehicle has special characteristics that are specified in simple language. If the engine on an idle-stop equipped vehicle is stopped in a forward gear and the shift position is changed to Reverse, it requires the brake to be depressed before the engine starts. Therefore, if Reverse is selected by mistake, the driver's foot is on the brake and he or she is prepared to stop the vehicle. It also allows for vehicles like the Prius, which behaves like a conventional ICE/automatic transmission equipped vehicle no matter what the status of the ICE. Therefore, this different approach that appears in this final rule makes the same distinction between the same vehicles as does the NPRM and achieves an outcome identical to that in the NPRM but in a simpler manner. The approach in the final rule permits the designs of the Insight and the Prius for which the original interpretations were written. The final rule also permits the designs used on the hybrid-electric Civic, Accord and the redesigned Prius, as well as series hybrid-electric systems used in heavy vehicles such as buses. The final rule imposes no burden on manufacturers of current hybrid vehicles, and allows for flexibility in future designs. Finally, this final rule does not compromise the original safety intent of Standard 102.

As indicated, we have thoroughly reviewed the public comments and amended the final rule to reflect the comments. In the few instances where we did not adopt a comment, we explain why we did not adopt the comment. In most instances, the comments addressed the creep force proposal in the NPRM, which were not adopted in the final rule. These comments were thus made moot. We believe that this final rule, which facilitates the development of propulsion systems, such as hybrid/electric systems, that conserve energy and reduce emissions by stopping the internal combustion engine when it is not needed, meets the need for safety.

VII. Effective Date

AHAS concurred with the NPRM's proposed effective date, which is the first September 1st that occurs 2 years after the publication date of the final rule. International recommended that the proposed changes in the NPRM be applicable only to vehicles with a GVWR less than 10,000 lbs. It stated that if NHTSA does not grant this request, then it requests a much longer lead-time (4 years) for the heavier vehicles. A longer lead time would allow time for further development of these vehicles and also allow time for rule changes if the proposed requirements are not applicable. DaimlerChrysler commented that since we are operating under interpretations, they would like to see an effective date of less than 2 years after publication of the final rule.

In response, NHTSA notes that the new language of the final rule removes any conflicts that existed between current hybrid systems on vehicles with GVWRs greater than 10,000 pounds and the proposed language that appeared in the NPRM. The language in the final rule does not conflict with series hybrid-electric systems usually found on large buses. The final rule language eliminates the test for creep force, distinguishes between the same types of vehicles (*i.e.,* Insight versus Prius) and yields an outcome that is substantially similar to the language in the NPRM. The final rule does not impose any burden on manufacturers, does not cause redesign of current vehicles and does not restrict the development of new technology. Additionally, the final rule establishes in FMVSS No. 102, the interpretations provided for Toyota (1999) and Honda (2001).

For these reasons, and because it is important to expeditiously clarify how the start interlock requirements apply to vehicles incorporating emerging technologies, NHTSA wishes to minimize any delay in the implementation of the final rule. This final rule takes effect 180 days (approximately 6 months) after publication. NHTSA's statute at 49 U.S.C. Section 30111(d) *Effective dates of standards* states:

> [NHTSA] shall specify the effective date of a motor vehicle safety standard prescribed under this chapter [49 USCS §§ 301 et seq.] in the order prescribing the standard. A standard may not become effective before the 180th day after the standard is prescribed or later than one year after it is prescribed
> * * *

VIII. Regulatory 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 budgetary 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.

We have considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's regulatory policies and procedures. This rulemaking document was not reviewed by the Office of Management and Budget under E.O. 12866, ''Regulatory Planning and Review.'' The rulemaking action is also not considered to be significant under the Department's Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

We are revising FMVSS No. 102, *Transmission shift position sequence, starter interlock, and transmission braking effect,* to clarify how it applies to vehicles with emerging technologies. The amendments do not require changes to current vehicles, and the impacts are so minimal that a full regulatory evaluation has not been prepared.

B. Executive Order 13132 (Federalism)

Executive Order 13132 requires us to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national

government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132, we may not issue a regulation with Federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or unless we consult with State and local governments, or unless we consult with State and local officials early in the process of developing the proposed regulation. We also may not issue a regulation with Federalism implications and that preempts State law unless we consult with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The reason is that this final rule applies to motor vehicle manufacturers, and not to the States or local governments. Thus, the requirements of Section 6 of the Executive Order do not apply.

C. Executive Order 13045 (Economically Significant Rules Disproportionately Affecting Children)

Executive Order 13045 (62 FR 19885, April 23, 1997) 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 rule on children, and explain why the regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

This rule is not subject to the Executive Order because it is not economically significant as defined in E.O. 12866 and does not involve decisions based on environmental, health or safety risks that disproportionately affect children.

D. Executive Order 12988 (Civil Justice Reform)

Pursuant to Executive Order 12988, ''Civil Justice Reform,'' we have considered whether this rule has any retroactive or preemptive effect. We conclude that it would not have any retroactive effect. Under 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.

E. 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). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule would 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 would not have a significant economic impact on a substantial number of small entities.

The Administrator has considered the effects of this rulemaking action under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) and certifies that this final rule will not have a significant economic impact on a substantial number of small entities. The statement of the factual basis for the certification is that since this rulemaking makes no substantive changes in the scope of FMVSS No. 102, small manufacturers of passenger cars, multipurpose passenger vehicles, trucks or buses need not make any changes in vehicle manufacturing processes or procedures to ensure that their vehicles meet an amended FMVSS No. 102. Accordingly, the agency concludes that this final rule does not affect the costs of motor vehicle manufacturers considered to be small business entities.

F. National Environmental Policy Act

We have analyzed this rule for the purposes of the National Environmental Policy Act and determined that it would not have any significant impact on the quality of the human environment.

G. Paperwork Reduction Act

NHTSA has determined that this final rule will not impose any ''collection of information'' burdens on the public, within the meaning of the Paperwork Reduction Act of 1995 (PRA). This rulemaking action does not impose any filing or recordkeeping requirements on any manufacturer or any other party. For this reason, we discuss neither electronic filing and recordkeeping nor do we discuss a fully electronic reporting option.

H. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Pub. L. 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.

After conducting a search of available sources (including data from International Organization of Standards or other standards bodies), we have determined that there are not any available and applicable voluntary consensus standards that we can use in this final rule.

I. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA) requires Federal 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 $100 million in any one year (adjusted for inflation with base year of 1995). Before promulgating a NHTSA rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of

regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if we publish with the final rule an explanation why that alternative was not adopted.

This final rule will not result in costs of $100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector. Thus, this rule is not subject to the requirements of sections 202 and 205 of the UMRA.

J. Plain Language

Executive Order 12866 requires each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

—Have we organized the material to suit the public's needs?
—Are the requirements in the rule clearly stated?
—Does the rule contain technical language or jargon that is not clear?
—Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
—Would more (but shorter) sections be better?
—Could we improve clarity by adding tables, lists, or diagrams?
—What else could we do to make this rulemaking easier to understand?

If you have any responses to these questions, please include them in your comments to the docket number cited in the heading of this final rule.

K. 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.

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles, Rubber and rubber products, Tires.

■ In consideration of the foregoing, the Federal Motor Vehicle Safety Standards (49 CFR Part 571), are amended as set forth below.

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

■ 1. The authority citation for part 571 continues 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 571.102 is revised to read as follows:

§ 571.102 Standard No. 102; Transmission shift position sequence, starter interlock, and transmission braking effect.

S1. Purpose and scope. This standard specifies the requirements for the transmission shift position sequence, a starter interlock, and for a braking effect of automatic transmissions, to reduce the likelihood of shifting errors, to prevent starter engagement by the driver when the transmission is in any drive position, and to provide supplemental braking at speeds below 40 kilometers per hour (25 miles per hour).

S2. Application. This standard applies to passenger cars, multi-purpose passenger vehicles, trucks, and buses.

S3. Requirements.

S3.1 Automatic transmissions.

S3.1.1 Location of transmission shift positions on passenger cars. A neutral position shall be located between forward drive and reverse drive positions.

S3.1.1.1 Transmission shift levers. If a steering-column-mounted transmission shift lever is used, movement from neutral position to forward drive position shall be clockwise. If the transmission shift lever sequence includes a park position, it shall be located at the end, adjacent to the reverse drive position.

S3.1.2 Transmission braking effect. In vehicles having more than one forward transmission gear ratio, one forward drive position shall provide a greater degree of engine braking than the highest speed transmission ratio at vehicle speeds below 40 kilometers per hour (25 miles per hour).

S3.1.3 Starter interlock. Except as provided in S3.1.3.1 through S3.1.3.3, the engine starter shall be inoperative when the transmission shift position is in a forward or reverse drive position.

S3.1.3.1 After the driver has activated the vehicle's propulsion system:

(a) The engine may stop and restart automatically when the transmission shift position is in any forward drive gear;

(b) The engine may not automatically stop when the transmission is in reverse gear; and

(c) The engine may automatically restart in reverse gear only if the vehicle satisfies (1) and (2):

(1) When the engine is automatically stopped in a forward drive shift position and the driver selects Reverse, the engine restarts immediately whenever the service brake is applied.

(2) When the engine is automatically stopped in a forward drive shift position and the driver selects Reverse, the engine does not start automatically if the service brake is not applied.

S3.1.3.2 Notwithstanding S3.1.3.1, the engine may stop and start at any time after the driver has activated the vehicle's propulsion system if:

(a) The vehicle's propulsion system can propel the vehicle in the normal travel mode in all forward and reverse drive gears without the engine operating, and

(b) If the engine automatically starts while the vehicle is traveling at a steady speed and steady accelerator control setting, the engine does not cause the vehicle to accelerate.

S3.1.3.3 If the transmission shift position is in Park, automatically stopping or restarting the engine shall not take the transmission out of Park.

S3.1.4 Identification of shift positions and of shift position sequence.

S3.1.4.1 Except as specified in S3.1.4.3, if the transmission shift position sequence includes a park position, identification of shift positions, including the positions in relation to each other and the position selected, shall be displayed in view of the driver whenever any of the following conditions exist:

(a) The ignition is in a position where the transmission can be shifted; or

(b) The transmission is not in park.

S3.1.4.2 Except as specified in S3.1.4.3, if the transmission shift position sequence does not include a park position, identification of shift positions, including the positions in relation to each other and the position selected, shall be displayed in view of the driver whenever the ignition is in a position in which the engine is capable of operation.

S3.1.4.3 Such information need not be displayed when the ignition is in a position that is used only to start the vehicle.

S3.1.4.4 All of the information required to be displayed by S3.1.4.1 or S3.1.4.2 shall be displayed in view of the driver in a single location. At the option of the manufacturer, redundant displays providing some or all of the information may be provided.

S3.2 Manual transmissions. Identification of the shift lever pattern of manual transmissions, except three

forward speed manual transmissions having the standard ''H'' pattern, shall be displayed in view of the driver at all times when a driver is present in the driver's seating position.

Issued on: June 28, 2005.

Jeffrey W. Runge,

Administrator.

[FR Doc. 05–13062 Filed 6–30–05; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 041126332–5039–02; I.D. 062705A]

Fisheries of the Exclusive Economic Zone Off Alaska; Rock Sole in the Bering Sea and Aleutian Islands Management Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.

SUMMARY: NMFS is prohibiting directed fishing for rock sole in the Bering Sea and Aleutian Islands management area (BSAI). This action is necessary to prevent exceeding the 2005 rock sole total allowable catch (TAC) in the BSAI.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), July 5, 2005, through 2400 hrs, A.l.t., December 31, 2005.

FOR FURTHER INFORMATION CONTACT: Josh Keaton, 907–586–7228.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the BSAI according to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The 2005 rock sole TAC in the BSAI is 35,275 metric tons (mt) as established by the 2005 and 2006 final harvest specifications for groundfish in the BSAI (70 FR 8979, February 24, 2005).

In accordance with § 679.20(d)(1)(i), the Administrator, Alaska Region, NMFS, has determined that the 2005 rock sole TAC in the BSAI will soon be reached. Therefore, the Regional Administrator is establishing a directed fishing allowance of 33,275 mt, and is setting aside the remaining 2,000 mt as bycatch to support other anticipated groundfish fisheries. In accordance with § 679.20(d)(1)(iii), the Regional Administrator finds that this directed fishing allowance has been reached. Consequently, NMFS is prohibiting directed fishing for rock sole in the BSAI.

After the effective date of this closure the maximum retainable amounts at §§ 679.20(e) and (f) apply at any time during a trip.

Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay the closure of rock sole in the BSAI.

The AA also finds good cause to waive the 30-day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

This action is required by § 679.20 and is exempt from review under Executive Order 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: June 27, 2005.

Alan D. Risenhoover

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 05–13048 Filed 6–28–05; 2:20 pm]

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