

**DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration****49 CFR Part 571**

[Docket No. 74-14; Notice 109]

RIN 2127-AG60

**Federal Motor Vehicle Safety Standards; Occupant Crash Protection**

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

ACTION: Final rule.

**SUMMARY:** This rule extends until September 1, 2000, the time period during which vehicle manufacturers are permitted to offer manual cutoff switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats. Rear facing infant seats cannot be used safely in front of an air bag, and should ordinarily be placed in the back seat. The purpose of the option for manual cutoff switches is to ensure that the vehicle manufacturers have a means of accommodating their customers' need to carry rear facing infant seats in vehicles without rear seats or with rear seats that are too small for these devices. The agency is extending the time period for the option to ensure that manufacturers have adequate time to implement better, automatic solutions.

**DATES:** *Effective Date:* The amendments made in this rule are effective February 5, 1997.

*Petitions:* Petitions for reconsideration must be received by February 20, 1997.

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

**FOR FURTHER INFORMATION CONTACT:** For information about air bags and related rulemakings: Visit the NHTSA web site at <http://www.nhtsa.dot.gov> and select "AIR BAGS Information about air bags."

For non-legal issues: Mr. Clarke Harper, Chief, Light Duty Vehicle Division, NPS-11, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590. Telephone: (202) 366-2264. Fax: (202) 366-4329.

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**I. Background**

While air bags are providing significant overall safety benefits, NHTSA is very concerned because current designs have adverse effects in some situations. Most important, while passenger side air bags are estimated to have saved 164 lives to date, they have also killed 32 children in relatively low speed collisions. Eighteen of those deaths have occurred this year. Driver air bags, by contrast, are estimated to have saved 1500 lives to date. The agency is aware of 19 relatively low speed crashes in which a driver has been killed by the air bag.

Within the past year, the agency has published two documents in the Federal Register to address this subject. On November 9, 1995, NHTSA published a request for comments to inform the public about NHTSA's efforts to reduce the adverse effects of air bags, and to invite the public and industry to share information and views with the agency. 60 FR 56554.

On August 6, 1996, the agency published a notice of proposed rulemaking (NPRM) to reduce the adverse effects of air bags, especially those on children. 61 FR 40784. The NPRM proposed several amendments to Standard No. 208, *Occupant Crash Protection*, and Standard No. 213, *Child Restraint Systems*.

In the August 1996 NPRM, the agency explained that eventually, either through market forces or government regulation, it expects that "smart" passenger-side air bags will be installed in passenger cars and light trucks to mitigate these adverse effects. NHTSA indicated that, for purposes of the NPRM, it considered smart air bags to

include any system that automatically prevents an air bag from injuring the two groups of children that experience has shown to be at special risk from air bags: infants in rear-facing child seats, and children who are out-of-position (because they are unbelted or improperly belted) when the air bag deploys.

NHTSA proposed that vehicles lacking smart passenger-side air bags would be required to have new, attention-getting warning labels. By limiting the labeling requirement to vehicles without smart passenger-side air bags, NHTSA hoped to encourage the introduction of the next generation of air bags as soon as possible. NHTSA proposed to define smart air bags broadly to give manufacturers flexibility in making design choices. The agency requested comments concerning whether it should require installation of smart air bags and, if so, on what date such a requirement should become effective.

NHTSA also proposed to expand an existing option that permits manufacturers to install manual cutoff switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats. That option is scheduled to expire on September 1, 1997 for passenger cars and September 1, 1998 for light trucks. The agency proposed to extend the option for a longer period of time, and to expand it to cover all vehicles.

**II. Overview and Summary**

NHTSA is implementing a comprehensive plan of rulemaking and other actions (e.g., primary enforcement of State safety belt use laws) addressing the adverse effects of air bags. As part of that plan, NHTSA is issuing three separate, but related, notices today. Each notice is intended to ensure that some or all of the risks are reduced, and benefits retained, to the maximum extent possible. They provide immediate and/or interim solutions to the problem. A later notice, a proposal to require smart air bags, would provide a permanent solution.

In this final rule, which is based on the August 1996 NPRM, NHTSA is extending until September 1, 2000, a provision in Standard No. 208 permitting vehicle manufacturers to offer manual cutoff switches for the passenger air bag for new vehicles without rear seats or with rear seats that are too small to accommodate rear-facing infant restraints.

The other rulemaking actions addressing the adverse side effects of air bags are as follows:

- Also based on the August 1996 NPRM, the agency issued on November 22, 1996, a final rule amending Standards No. 208 and No. 213 to require improved labeling on new vehicles and child restraints to better ensure that drivers and other occupants are aware of the dangers posed by passenger air bags to children. The labeling places particular emphasis on placing rear-facing infant restraints in the rear seats of vehicles with operational passenger air bags. 61 Fed. Reg. 60206; November 27, 1996. The new labels are required on vehicles not equipped with smart passenger air bags beginning February 25, 1997, and on child restraints beginning May 27, 1997.

- NHTSA is also issuing an NPRM to temporarily amend Standard No. 208 to permit or facilitate approximately 20 to 35 percent depowering of current air bags.

- The agency also is issuing an NPRM proposing to permit motor vehicle dealers and repair businesses to deactivate, upon the request of consumers, driver and passenger air bags that do not meet the agency's criteria for smart air bags. Final action is expected in early 1997.

- In addition to these actions, NHTSA will issue a separate supplemental NPRM (SNPRM) to require a phasing-in of smart air bags, beginning on September 1, 1998, and to establish performance requirements for those air bags. The proposal will be issued in early 1997.

### III. Current and Proposed Requirements Concerning Manual Cutoff Switches

Until smart passenger-side air bags can be installed in new vehicles, the improved labeling requirements recently announced by the agency will better ensure that drivers and other occupants are aware of the dangers posed by air bags to unbelted children and children in rear-facing child seats located in the front seat. Adult occupants will ideally respond to the labels by ensuring that, whenever possible, a child occupies the back seat of a vehicle, instead of the front, and is properly restrained there. Further, the adult will ensure that if a child, other than an infant in a rear-facing child seat, must sit in the front seat, the child is properly restrained and the seat is moved all the way back.

For rear-facing infant seats, however, securing them tightly in a front seat using the vehicle safety belts and moving the front seat all the way back will not protect an infant because the child seat would still extend too far forward. The infant's head would still be located very close to the air bag. For this reason, a rear-facing child seat should *never* be placed in a seating position with an activated air bag. However, some vehicles do not have back seats, or have back seats which are not large enough to accommodate a rear-facing child seat.

To address this dilemma, on May 23, 1995, NHTSA published a final rule allowing manufacturers the option of installing a manual device that motorists could use to deactivate the front passenger-side air bag in vehicles that are manufactured on or after June 22, 1995, and that cannot accommodate rear-facing child seats anywhere except in the front seat. In addition to limiting the types of vehicles which were permitted to have the manual cutoff switch, the final rule also included a number of conditions that had to be satisfied. The manual cutoff switch had to use an ignition key to turn off the air bag and to turn on the air bag by manual means. The manufacturer had to also install a warning light that was separate from the air bag readiness indicator and would indicate when the air bag was turned off. The light had to be visible to both the driver and passenger. The manufacturer had to include information on the manual cutoff switch in the owner's manual. Finally, the option was only available for passenger cars manufactured before September 1, 1997, and light trucks manufactured before September 1, 1998. The agency decided to place a time limit on the option for manual cutoff switches because it believed that better, automatic solutions would soon be available.

In the August NPRM, NHTSA proposed to extend the period of availability of the option for manual cutoff switches and to permit installation of those devices in all vehicles with passenger air bags lacking smart capability. The agency issued this proposal out of concern that smart air bags were not becoming available as quickly as anticipated, and that the need to place rear facing infant seats in the front seat goes beyond vehicles lacking rear seats that can accommodate these devices.

The agency noted that some children have special medical problems requiring close monitoring, which cannot be accomplished if the driver places the child in the rear seat. The agency had received a number of comments concerning this problem in response to a request for comments concerning adverse effects of air bags published in the Federal Register on November 9, 1995 (60 FR 56554).<sup>1</sup>

<sup>1</sup> Among other things, the parents of an infant with medical problems commented that those medical problems require them to be able to monitor the child and that cannot be done with the child in the back seat. The agency also noted that the National Association of Pediatric Nurse Associates & Practitioners had submitted a comment identifying a number of medical conditions for which infants would need to be

NHTSA also noted that a second reason for permitting manual cutoff switches in all vehicles is that the deep-seated desire of some parents to keep their infants near them under their close and watchful eye may be sufficiently strong that they choose to place their children in the front seat instead of the rear seat where the child would be safer.<sup>2</sup> The agency stated that it was concerned that some parents may decide to place a rear-facing child seat in the front seat where the infant can be closely monitored, even in the presence of an activated air bag and warning labels. NHTSA noted that while it does not wish to encourage parents to place children in the front seat, a cutoff switch would enable these parents to eliminate the risk from the air bag.

NHTSA requested comments on the availability of alternative automatic devices, and how such availability should affect its decision regarding the manual cutoff switch option. The agency also requested comments on whether it should endeavor to further encourage smart passenger-side air bags by specifying an expiration date for the manual cutoff switch option and, if so, what date.

The agency noted that many commenters to the November 1995 request for comments expressed concern about the potential for misuse of a manual cutoff switch. A switch could be misused either by a driver or other vehicle occupant deactivating the air bag when an occupant other than a child in a rear facing child seat is present, or by a driver simply forgetting to reactivate the air bag after using such a restraint. In either case, the air bag would not be available to protect persons who could benefit from its deployment.

In the Preliminary Regulatory Evaluation (PRE) for this rulemaking, NHTSA assessed possible benefit trade-offs associated with a manual cutoff switch provided for the right front passenger seat and intended to be used when a rear-facing child restraint is placed there. The agency stated that it appeared that there would be more

monitored closely, indicating a need for those children to be transported in the front seat. That organization stated that approximately two percent of all children (which translates into about 400,000 children under the age of 5 and close to 100,000 under the age of one) have some type of medical condition or disability which requires some type of nonmedical assistive technology. Also, about 0.1 percent (or about 20,000 children under the age of five and 5,000 infants) require medical technology assistance such as respirators, surveillance devices, or nutritive assistance devices.

<sup>2</sup> A child is safer in the back seat of a vehicle, regardless of whether the vehicle has an activated passenger air bag in the front seat.

benefits to allowing a cutoff switch than losses if misuse levels were below seven percent. NHTSA noted that its educational efforts would focus on preventing such misuse, and also noted that the requirement for an extra warning light would reduce the possibility of drivers forgetting to reactivate the air bag after using a rear-facing child restraint in the front seat. Currently, pursuant to Standard No. 208, a yellow warning light displays the message "AIR BAG OFF" whenever the right front passenger air bag is deactivated by someone operating the cutoff switch.

Based on discussions with Ford, the vehicle manufacturer with the largest number of manual cutoff switches,<sup>3</sup> NHTSA stated that it was not aware of any misuse problems with these devices. Nevertheless, NHTSA specifically requested comments on whether there are any quantitative data or other information concerning the likelihood of manual cutoff switches being misused. The agency stated that it was particularly interested in information derived from the real-world experience with the vehicles equipped with manual cutoff switches.

#### IV. Summary of Comments

NHTSA received comments concerning its August 1996 proposal on manual cutoff switches from vehicle manufacturers, suppliers, safety groups, and private individuals. Commenters generally supported extending the period of availability of the existing option for manual cutoff switches. The comments were mixed, however, with respect to expanding the option to cover all vehicles. A variety of commenters, including the domestic auto manufacturers and several insurance and safety groups, opposed such an expansion. Some were concerned about the potential misuse of the cutoff, while others thought that such an expansion would inadvertently and unavoidably compromise various safety messages, i.e., that rear facing infant seats should always be placed in the back seat and that the back seat is the safest place for all children.

This section summarizes comments concerning whether the option for cutoff switches should be extended in time and/or expanded in scope. Comments concerning what specific requirements

should apply to cutoff switches, assuming they are permitted, are addressed later in this document.

#### A. Vehicle Manufacturers

The American Automobile Manufacturers Association (AAMA), representing GM, Ford, and Chrysler, recommended that the current option for installing manual cutoff switches in certain vehicle configurations be continued. It noted that its members are already on record as considering this approach to be an interim measure until systems that can discriminate occupant weight and location have been proven to be sufficiently reliable and effective for production vehicle use.

AAMA recommended, however, that the allowable use of manual cutoff switches not be expanded to cover other vehicle configurations than those currently permitted. That organization noted that the cutoff switch option currently allowed in Standard No. 208 provides a method to manually deactivate the passenger side air bag in vehicles where the alternative of placing a rear-facing child seat in the rear seat of the vehicle does not exist because of the configuration of the vehicles' interior. AAMA stated that in these vehicles, there may be specific crash situations where a properly utilized manual cutoff switch could provide a benefit. That commenter added, however, that there are no data publicly available to evaluate the net effectiveness of a cutoff switch—particularly considering the long term potential for misuse. Therefore, AAMA believes that for other vehicle configurations that already offer preferable alternatives to placing rear-facing child seats in the vehicles' front seat, the net potential benefit of a cutoff switch is questionable.

GM stated that it supports the agency's proposal to extend indefinitely the currently permitted use of manual cutoff switches for passenger air bags. That company noted that it is currently installing these switches in its 1997 regular and extended full size pickup trucks. GM stated that its review of the various automatic suppression technologies currently being developed is ongoing. According to that commenter, as automatic suppression technology becomes production capable, its ability to replace manual suppression systems will be evaluated and, when appropriate, implemented as quickly as possible. GM stated that it does not agree with the agency's proposal to expand the allowable use of manual cutoff switches to include vehicles other than the configurations currently permitted.

Ford stated that it supports extension beyond September 1, 1998 of the existing option to install manual deactivation switches in vehicles that cannot fit rear-facing infant restraints in the rear seat, because it may be unable to install automatic deactivation for children in all pickup trucks by that date. Ford stated, however, that it opposes expansion of the option to passenger cars and other vehicles that can fit rear-facing infant restraints in the rear seat, because automatic (weight threshold) deactivation technology has now advanced sufficiently to be considered for future models of such vehicles.

Chrysler stated that it is concerned about the many opportunities for misuse of cutoff switches, even if their use is limited to the vehicles in which they may now be installed. That company stated that drivers are faced with a dilemma about how to use a cutoff switch with three passenger front seating. Given the confusion associated with this problem and ordinary driver distractions, it believes that the potential for misuse of cutoff switches could exceed the seven percent "breakeven" figure cited by the agency in its Preliminary Regulatory Evaluation for the August 1996 NPRM.

Chrysler also argued that it believes cutoff switches may discourage seat belt use, and dilute the message that children should be seated in the rear seat. Chrysler stated that given NHTSA's statement that the likelihood of injuries/fatalities is 29 percent less for someone sitting in the rear seat instead of in the front seat, this encouragement of front seat use alone could negate the purported benefits of cutoff switches.

Toyota stated that it believes manual cutoff switches are the most reliable resolution currently available when used as intended, i.e., to install a rearward facing infant restraint. That company indicated that it is planning to provide such switches in its 1998 model year pickup trucks. Toyota stated that, with respect to vehicles other than those without adequate seats for rear facing infant seats, manual cutoff switches have some inherent problems.

Honda stated that it is extremely concerned about the potential for misuse or abuse of manual cutoff switches by some users. That company stated that vehicle operators may inadvertently forget to deactivate the air bag with the switch when necessary, or may intentionally deactivate the passenger air bag with the cutoff switch when it is not appropriate to do so. Honda stated it believes the manual cutoff switch represents the least

<sup>3</sup> At the time of the NPRM, NHTSA knew of only three models utilizing cutoff switches—the model year 1996 Ford Ranger pickup, the model year 1997 Ford F150 pickup, which was introduced in February 1996, and the LE and SE versions of the model year 1996 Mazda B-series pickup trucks, which are equipped with an optional passenger side air bag.

effective of any solutions to the problem of air bag induced injuries.

Mercedes Benz stated that unless required by law, it will not offer any type of manual cutoff switch because of expected driver misuse or non-use.

Volvo stated that it believes manual cutoff switches should be allowed for all categories of vehicles. That manufacturer stated that this technology must be considered an interim solution. Volvo stated it believes market forces will act as soon as more advanced technology is available and will make any manually operated system obsolete. Therefore, that company believes there should be no time limit for when manual cutoff switches should no longer be allowed.

Volvo noted that in Europe, due to customer requests, most manufacturers have developed new car retail service procedures for deactivation and reactivation of passenger side air bags. Volvo recommended making new car retail service procedures legal in the U.S. for all customers who wish to deactivate the passenger side air bag.

BMW stated that it believes manual cutoff switches remain a practical alternative and allowing them on all vehicles is a reasonable interim solution. That company stated that it is important to offer parents alternatives until advanced technologies can be developed and implemented. BMW stated that if the fast pace of technology for advanced systems continues at its current rate, it expects that the need for an allowance for manual devices may be eliminated about the year 2002.

BMW noted that as an alternative to manual devices, a more direct approach consists of temporarily deactivating the air bag. That manufacturer stated that it believes that NHTSA could develop procedures similar to those being utilized by vehicle manufacturers in Europe. In Europe, a BMW dealer is allowed to temporarily deactivate the passenger air bag for individuals who may have a special need or normally transport children after advising them of the benefits of air bags and approval forms are signed.

#### *B. Dealers*

The National Automobile Dealers Association (NADA) supported the agency's proposal to expand the option for manual cutoff switches to cover all vehicles.

#### *C. Suppliers*

TRW stated that it believes the cutoff switch to be the most positive means of shutting off the air bag if understood and used properly, and therefore supported allowing its use in all

vehicles. However, TRW recommended continued use of the cutoff switch only until more inclusive, automatic means can be demonstrated and adopted.

Autoliv stated that manual cutoff switches should be considered as an interim solution. That company stated that it believes market forces will generate devices for automatic deactivation and that a time limit for permitting manual cutoff switches is unnecessary. Autoliv also argued that another reason for not setting a time limit is that there may be a justification for a combination of manual and automatic systems, highly depending on the direction that the development of automatic systems takes.

#### *D. Child Seat Manufacturers*

Cosco stated that it believes cutoff switches should immediately be permitted in all vehicles as the fastest way of providing an option for those who must, or prefer to, have a baby in the front seat. That company stated that it does not believe permitting cutoff switches will delay the introduction of smart bags, but will allow the thoughtful and intelligent introduction of effective smart systems.

Cosco also commented that certain car beds, including its "Dream Ride," are compatible with seating positions equipped with air bags. Cosco cited a test performed by NHTSA for this conclusion. Cosco stated that such car beds that have been proven to be compatible with air bags do not require the deactivation of the air bag. That commenter stated that until cutoff switches or other devices are adopted, NHTSA should make an effort to inform parents that a car bed is an acceptable alternative, especially since, for medically fragile infants and also for cars with non-compatible rear vehicle belts, a car bed is their only option.

#### *E. Insurance, Safety, and Medical Groups*

IIHS stated that it does not support NHTSA's proposal to allow manual cutoff switches in all vehicles with passenger air bags. That organization stated that it is concerned that cutoff switches will not be an effective solution to the problem of child deaths and may lead to additional harm to other vehicle occupants. According to IIHS, some people undoubtedly would use the switches correctly, but it is likely that many parents and other drivers would misuse the switches. That commenter stated that there is no reason to believe that many adults who allow children to ride unrestrained or improperly restrained would use air bag deactivation switches correctly.

IIHS also cited a danger that manual cutoff switches send consumers a mixed message by encouraging drivers to place infants and children in the front seat. That commenter noted that a central objective of the educational effort to reduce the adverse effects of passenger air bags is to convince adults that infants and children should ride in rear seats. A recent Institute survey of vehicles in parking lots found rear-facing restraints in the front seat of cars with passenger air bags only 9 percent of the time, compared with 36 percent in cars without passenger air bags. IIHS stated that it would be a mistake if, as a result of switches, more infants and children are placed in the front seat.

The National Association of Independent Insurers (NAII) stated that it is extremely concerned by the proposal to allow use of manual switches to allow vehicle users to deactivate passenger-side air bags. NAII cited several concerns about this issue previously raised by IIHS and stated that, in NAII's estimation, many people may run a greater risk of getting injured simply because they have forgotten to turn the switch back on.

Advocates for Highway and Auto Safety (Advocates) stated that while it would support an extension of time for the installation of manual cutoff switches in vehicles without back seats, it believes that NHTSA should encourage the use of automatic weight sensors and should not permit the installation of manual cutoff switches in vehicles with back seats. According to that organization, permitting the installation of manual cutoff switches in all passenger vehicles would result in potential safety risks for many passengers due to the inevitable misuse of cutoff switches. Advocates stated that the misuse of cutoff switches is foreseeable and will result in a safety trade-off that will, in fact, undermine the proven life saving benefits of air bags.

Advocates argued that permitting manual cutoff switches in all vehicles will make air bag protection subject to the vagaries of what the agency has in the past referred to as operator error. The safety benefits of air bags will then depend on the ability and willingness of adults to set the switch in the "off" position for infants or toddlers but return it to the "on" position for other passengers. Advocates stated that it is convinced that manual cutoff switches will not be correctly used. Advocates also stated that while it has not quantified the potential risk, it believes that the higher level of exposure of non-infant occupants to risk when an air bag is turned off will far exceed the present

level of adverse effects of passenger-side air bags on children in rear-facing child restraints.

Advocates also argued that the manual cutoff switch sends the wrong safety message to parents. According to that commenter, the existence of a manual switch strongly implies that it is safe to place infants and children in the front seat.

Public Citizen stated that it opposes installation of air bag on/off switches. That organization argued that this proposal is misguided and would undercut the automatic nature of air bags. One of the disadvantages, according to Public Citizen, is the danger that the air bag will be left off for adult passengers when it should be on. That commenter also stated that the proposal sends a wrong and deadly message—that it's okay for kids to ride in the front seat. Public Citizen stated that a far preferable technical change would be a minimum trigger speed of approximately 15 mph, which would significantly reduce the number of low speed crash air bag inflations, the type of crash in which children are being killed and injured.

SafetyBeltSafe U.S.A. stated that it agrees that cutoff switches may be a necessary, temporary solution for some vehicles, but they should not be permitted beyond a specified date.

National Safe Kids Campaign (NSKC), whose chairman is C. Everett Koop, M.D., stated that it believes that in the best interest of children, manual cutoff switches should be required until smart passenger-side air bags are developed. That organization stated that while there are behavioral issues associated with cutoff switches, it recognizes that families with small children will sometimes need to transport them in the front seat as a last resort. That organization stated that the cutoff switch gives the responsible parent/driver the option to turn off the air bag deployment system and then more safely transport an infant or child in the front seat.

Kathleen Weber, Director of the Child Passenger Research Program at the University of Michigan Medical School, supported the agency's proposal. Ms. Weber stated that despite all the warnings in the world, parents want to put babies in the front seat, and older children also like to ride up front with the driver. That commenter stated that, with respect to the latter, it is becoming increasingly clear that, even when older children are suitably restrained by a lap/shoulder belt, they can easily and unpredictably move forward to adjust the radio, pick up something from the floor, or brace themselves in

anticipation of a crash, inadvertently placing themselves at great risk of injury or death. Ms. Weber stated that parents need the option of suppressing deployment of passenger air bags by either manual or automatic means, and also urged the agency to address this problem for owners of current vehicles.

The American Academy of Pediatrics (AAP) stated that it is very concerned about the possibility of extending and expanding the availability of manual air bag cutoff switches. That organization stated that efforts to educate families through labels regarding the potential dangers of air bags to infants in rear facing child seats have demonstrated that compliance is extremely difficult to accomplish. AAP expressed concern that with a manual cutoff switch, drivers may fail to deactivate the air bag when the rear facing seat is present or fail to reactivate the air bag after an appropriate deactivation. That organization stated that increased availability of the manual cutoff switch would lead to the development of a much larger fleet of vehicles in which such misuse could result. AAP stated that ensuring proper use of the cutoff switch by so many drivers would entail an enormous and extremely difficult educational challenge and would almost surely result in a significant amount of misuse.

AAP stated that it is also concerned that the availability of a manual cutoff switch will dilute the important message that "Back Seat is Best." That organization stated that although many parents feel that they need a manual cutoff switch so that they can place an infant in the front seat for observation, the number of children who actually have a medical need for observation is smaller than parents realize. In fact, AAP stated the number of such children is very small. AAP argued that consumer concerns could better be addressed through a focused, short-term education effort until a passive deactivation air bag system can be implemented.

AAP stated that the transportation of children with special needs who must be observed should be addressed on a case-by-case basis by the child's physician. That organization stated that the vast majority of the small number of children for whom observation may be medically desirable can be safely transported in a car bed in the front-seat position, which would not be affected by a passenger-side air bag. AAP added that the duration of time that this level of observation is necessary is usually extremely short—i.e., a few months. AAP stated that older children with high-risk medical needs, such as

children on ventilators, usually need to be the back seat anyway, since they need large quantities of equipment and must be accompanied by skilled care givers at their sides.

The National Association of Children's Hospitals and Related Institutions (NACHRI) stated that it has serious concerns with the proposal to permit manual air bag cutoff switches for any vehicle without a smart passenger side air bag, although it understands and supports the existing option for vehicles in which rear facing child seats can only be used in the front seat. That organization stated that key public awareness campaigns are currently presenting one message as an absolute—infants in rear facing child seats should never ride in the front seat of a vehicle with a passenger side air bag. NACHRI stated that while this message is only now taking hold with the public, it questions how NHTSA would, if manual switches are permitted in all vehicles, adjust the message without hampering the credibility of all child passenger safety public awareness efforts. NACHRI also stated that another message—the safest place for all children is in the back seat—would also be seriously affected by a change in regulation on manual cutoff switches.

NACHRI stated that it recognizes that there are a small number of pediatric medical conditions that require close monitoring during vehicle travel, e.g., complications of prematurity. NACHRI recommended, however, that instead of permitting cutoff switches for all vehicles—and addressing the resulting public education and safety issues—it may be simpler to educate the small number of parents of medically fragile infants to ride with another adult whenever possible or to stop the vehicle periodically to monitor the infant.

Dr. Phyllis Kiehl of LaTouche Pediatrics stated that she strongly encouraged the cutoff switch option for vehicles without smart air bags, while also arguing that the introduction of smart air bags should be mandated.

Philip O. Morton, Chairman of the Board of the American Tinnitus Association, expressed concern about the connection between vehicle air bag deployment and the corresponding incidence of tinnitus. Mr. Morton urged that on/off switches be available for all vehicle air bags, including driver air bags.

#### F. Other Commenters

Safe Ride News urged NHTSA to require rather than permit the use of cutoff switches for all vehicles without smart air bags.

A number of private individuals requested that cutoff switches be provided. Some, including persons concerned that air bag deployment may cause hearing problems for persons with tinnitus or hyperacusis, requested that cutoff switches be provided for both passenger and driver air bags.

## V. Agency Decision

### A. Option for Manual Cutoff Switches

NHTSA believes there is a consensus that the only fully effective solution to the problem of adverse effects from passenger-side air bags is smart bags. Moreover, the vehicle manufacturers have indicated that they plan to introduce these devices as soon as they become available.

The agency is encouraged that several suppliers commenting on the August 1996 NPRM indicated that smart bags can begin to be phased in beginning with the model year 1999 fleet, i.e., approximately September 1, 1998. To help ensure that these devices are introduced expeditiously, the agency plans to publish shortly a separate SNPRM to propose performance requirements for smart air bags and to propose a phase-in schedule for requiring these devices.

In the meantime, and after considering the comments, NHTSA has decided to extend until September 1, 2000, the time period during which vehicle manufacturers are permitted under Standard No. 208 to offer manual cutoff switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats. The agency has decided not to expand the option to additional vehicles. The reasons for the agency's decision are presented below.

#### 1. Time Period for Manual Cutoff Switches

The agency initially decided to place a time limit on the current option for manual cutoff switches for passenger air bags because it believed that better, automatic solutions would soon be available. The option was only available for passenger cars manufactured before September 1, 1997, and light trucks manufactured before September 1, 1998.

A variety of circumstances have changed since the agency issued its current rule on manual cutoff switches in May 1995. First, there is uncertainty concerning the extent to which smart air bags will be available by September 1, 1998. As indicated above, NHTSA is encouraged that several suppliers commenting on the August 1996 NPRM indicated that smart bags can begin to be

phased in beginning with the model year 1999 fleet, i.e., approximately September 1, 1998. However, this would not mean that vehicle manufacturers would be able to install smart bags on all of the models for which they would use manual cutoff switches by that date.

Second, a consensus has emerged concerning the need to develop and implement smart passenger air bags as soon as possible, and manufacturers and suppliers are working toward that end. Moreover, the agency is announcing plans to issue an SNPRM to propose performance requirements for smart air bags and a phase-in schedule for requiring these devices. Given these developments, the agency believes there is less reason to have concern that the availability of an option for manual cutoff switches will delay implementation of better solutions.

Given the importance of ensuring that the vehicle manufacturers have a means of accommodating their customers' need to carry rear facing infant restraints in some vehicles without rear seats or with rear seats that are too small to accommodate these devices, NHTSA has decided to extend the current option to September 1, 2000. While there is some uncertainty as to how long the option needs to be extended, the agency believes the record shows that the vehicle manufacturers should be able to implement some type of smart air bag for these vehicles by that time.

#### 2. Types of Vehicles for Which Manual Cutoff Switch Option Should be Available

As discussed above, while NHTSA initially decided to permit manual cutoff switches to be offered only on vehicles without rear seats or with rear seats that are too small to accommodate rear-facing child restraints, it proposed to expand the option to cover all vehicles. As summarized above, a variety of commenters urged that the cutoff option be expanded to other vehicles, arguing that parents want to place their children in the front seat and that an expanded option would provide an interim solution to the problem of air bag deaths until smart air bags are introduced and would provide time for the orderly introduction of smart air bags. Proponents of wider availability of manual cutoff switches asserted that the needs of vehicle owners for a means of turning air bags off could be met by such switches because they provide a means of turning off air bags in appropriate situations. Some commenters argued that the agency should respond to those needs by adopting a requirement that manufacturers install manual cutoff

switches in all vehicles, rather than a permissive option for manufacturers. Some commenters also argued that this requirement should apply to driver-side air bags as well as passenger-side air bags. One proponent expressed the view that cutoff switches provide the most "positive" means of shutting off air bags.

After considering the comments, however, the agency has decided not to expand the option to include additional vehicles. The reasons for this decision are explained below.

The agency begins by acknowledging that, given current air bag designs, there are situations in which there is a need or a strong desire to turn off passenger-side air bags in vehicles with large enough rear seats to accommodate a rear-facing child restraint. An example of this is the situation in which a rear facing infant restraint must be placed in the front seat so that a special medical condition of the infant can be closely monitored. The need to turn off passenger-side air bags by means of a manual cutoff switch or deactivation will cease when smart air bags are introduced.

NHTSA concludes that the objective of allowing air bags to be turned off in appropriate circumstances can best and most quickly be met by permitting motor vehicle dealers and repair businesses to deactivate driver and passenger-side air bags upon the request of vehicle owners without expanding the cutoff switch option to cover additional types of vehicles. As indicated above, the agency is issuing a separate NPRM on the subject of deactivation. Allowing deactivation would not only provide a means of turning off the air bags in vehicles not covered by the cutoff option, but also in vehicles covered by the option, but not equipped with a cutoff switch.

For those situations in which there is a need to turn off an air bag, deactivation is just as good a solution as a cutoff switch in some respects, and better in others. Deactivation is just as effective as a cutoff switch for enabling parents to eliminate the risk to their children. Parents who need to use the front passenger seat for transporting a child can have their passenger-side air bag deactivated. Deactivation also provides an answer to the concerns of some groups of drivers, e.g., short-statured drivers who sit very close to the steering wheel and drivers with tinnitus or hyperacusis, while the agency conducts further studies.

Deactivation, accompanied by appropriate labels, can provide as much visible assurance that an air bag has been deactivated as a cutoff switch can. Under the agency's proposal, a vehicle

owner would be able to readily determine if the air bag was off by means of the labels that the agency is proposing be placed on vehicles whose air bags have been deactivated.

Finally, just like manual cutoff switches, deactivation would solve the immediate problem and thus buy time for the intelligent and thoughtful introduction of smart bags. By providing a means to eliminate the risk to children, the agency and industry will have the opportunity to take appropriate care in completing the development of and in introducing smart air bags.

NHTSA believes that deactivation is superior to widespread use of cutoff switches in a number of respects. First, deactivation is a much speedier answer to the need to turn off air bags than expanding the option for manual cutoff switches. Significant time would be needed by vehicle manufacturers to do the designing and retooling necessary to install cutoff switches in future vehicles for which such work has not already been done. More specifically, vehicle manufacturers have advised that development and installation of cutoff switches would take at least one year. In contrast, no redesigning or retooling is needed for deactivation. Indeed, deactivation would be available immediately upon the issuance of a final rule. Moreover, deactivation is the only method for addressing vehicles already on the road, which are the bulk of the problem. The agency notes that even if it were to require or permit cutoffs for future vehicles, it would still have to authorize deactivation for existing vehicles and those future vehicles built before the switches could be installed.

Second, deactivation is a narrower and more focused solution than a cut off switch requirement or than a cutoff switch option to which manufacturers responded by installing cutoff switches in all or most vehicles. Under that scenario of nearly universal installation, cutoff switches would be provided without regard to need. By contrast, deactivation would be sought primarily just in those circumstances in which it is needed. This more focused aspect of deactivation would reinforce the message that air bags are generally good, and that only in limited circumstances is it appropriate to turn them off.

For reasons discussed by a wide range of commenters, including auto makers, consumer groups, insurance groups, and medical groups, there is a possibility that widespread availability of manual cutoff switches could easily do more harm than good, in terms of overall effect on safety. NHTSA is seeking to provide relief where needed while

minimizing, consistent with the safety of children and others, the number of air bags that are turned off. The agency believes that the possibility of a net adverse effect on safety is less likely with deactivation given the expectation noted above that deactivation would be sought primarily by persons with a particular need. Moreover, the agency has proposed procedures that would ensure that owners who are contemplating deactivation of their air bags are made aware of the circumstances in which deactivation may be appropriate, based upon the comparison of the risks of turning the air bag off versus leaving it on. This would reduce the possibility of unnecessary or inappropriate turning off of air bags, and should result in a better net effect on safety.

Third, deactivation would be less costly in terms of overall consumer costs than across-the-board provision of manual cutoff switches. Air bags would be deactivated only in those vehicles whose owners requested deactivation. As a result, costs would also be more equitably distributed, since the costs would be borne by those choosing to have their vehicles modified. Conversely, all new vehicle purchasers would have to pay for manual switches if they were universally installed.

NHTSA also believes that the early introduction and availability of smart air bag technology could be aided by allowing the vehicle manufacturers to focus their attention and resources on completing development of that technology rather than spending additional resources on, and otherwise being distracted by, designing manual cutoff switches for all vehicles. In addition, there are several other considerations that argue against diverting manufacturer efforts into expanding the availability of cutoffs. To the extent that vehicle manufacturers depower their air bags in the near future pursuant to another NHTSA proposal, the potential benefits of cutoff switches would be reduced. Further, the agency sees little point in pushing the vehicle manufacturers toward a technology that would so quickly be made obsolete by smart air bags.

NHTSA recognizes that deactivation would have some disadvantages as compared to cutoff switches. One disadvantage is that deactivation of an air bag for the benefit of one user of a particular vehicle would make the air bag unavailable for other users of that vehicle. By contrast, cutoff switches could be used by the various different occupants of a vehicle to suit their own needs with respect to air bag protection. Further, once an air bag was

deactivated, a person would have to make a greater investment of time and expense to have it reactivated. While these disadvantages were considered by the agency in making its decision, the agency believes they are outweighed by the factors discussed above.

NHTSA wishes to address the suggestion by some commenters that infants with a special medical condition can be placed in a car bed instead of a rear facing infant seat, and that a car bed can safely be used in front of an air bag. Given the limited information that is available, NHTSA is not prepared to recommend placing a car bed in front of an air bag. The agency did conduct a test in which the air bag deployed primarily over the top of a car bed, barely contacting the bed. However, NHTSA used an infant dummy that was not instrumented, and thus did not obtain measurements of the potential for injury. The agency notes that there is no available infant dummy of less than 10 pounds weight that is instrumented to make such measurements. The agency does not know how hard the air bag impacted the bed, or what the effect the impact would have on a four, five or ten pound infant, with or without a medical problem. Moreover, the agency does not know the extent to which that particular test was representative of current vehicle seats and air bags. Finally, NHTSA notes that car beds cannot fit on bucket seats.

#### *B. Performance Requirements for Manual Cutoff Switches*

Several commenters urged that, assuming manual cutoff switches are permitted, various changes should be made in the requirements for those switches and accompanying indicator lights. Volvo stated that if manual cutoff switches are permitted, all modes of air bag activation should be indicated, i.e., air bag on vs. air bag off. That manufacturer also suggested that this status indication might be accompanied by symbols showing who is the appropriate occupant in the seat for the indicated mode and who is not. Volvo stated that manufacturers should be given full freedom in finding a suitable location for the air bag status indication. That company stated that it is desirable that the indication be visible for all front seat occupants, but a provision that requires the indication be close to the cutoff switch is unnecessarily design restrictive. Volvo also suggested that other options for the device used to operate the cutoff switch, i.e., other than the ignition key, should be considered.

Nissan stated that if NHTSA expands the ability of manufacturers to install manual air bag cutoff switches, the

agency should make changes to Standard No. 208's current indicator light requirements. Nissan noted that the Standard currently specifies that if a vehicle is equipped with a single indicator for both a driver and passenger air bag, and if the vehicle is equipped with a cutoff device, the readiness indicator must monitor only the readiness of the driver air bag when the passenger air bag has been deactivated by means of the cutoff device. Nissan expressed concern that this requirement means that the operability of the cutoff switch indicator, the cutoff switch, and the passenger air bag cannot be diagnosed when that air bag is deactivated by the cutoff switch. That manufacturer requested that the current requirements be amended to allow use of a system that continuously monitors, diagnoses and displays system status for all components, including the driver air bag, passenger air bag, cutoff switch and the cutoff switch indicator, if the readiness indicator does not illuminate solely upon the action of deactivating the passenger air bag via the cutoff switch.

Land Rover stated that if the opportunity to install cutoff switches is expanded, additional rulemaking should be conducted to specify the mode of operation including details about whether and under what conditions the air bag should be automatically reactivated.

AAP stated that if NHTSA should choose to permit wider use of the manual cutoff switch, then it recommends that a visible, audible and non-deactivatable warning signal be required to indicate that the air bag is on or off. NSKC stated that if the agency decides to require manual cutoff switches, it also becomes absolutely necessary to require some type of warning light and warning sound in the control panel of the dashboard which informs or reminds the driver that the air bag has been deactivated. Autoliv stated that it cannot be emphasized enough that a clear indication of the passenger air bag mode to the driver is crucial to the safe use of the manual cutoff switch. Autoliv suggested that this switch could be further improved by alerting the driver about the passenger bag mode (off or on) each time the driver turns the ignition key on.

As discussed above, Standard No. 208 currently specifies a number of requirements for manual cutoff switches. The manual cutoff switch must make it necessary to use an ignition key to turn off the air bag and to turn on the air bag by manual means. The manufacturer must also install a

warning light which is separate from the air bag readiness indicator and which would indicate that the air bag was turned off. The light must be visible to both the driver and passenger. The manufacturer must include information on the manual cutoff switch in the owner's manual.

For a number of reasons, NHTSA is reluctant to make any significant changes in the current performance requirements for manual cutoff switches. First, the agency has already completed a rulemaking to determine what requirements should apply to manual cutoff switches, and has no reason to believe that significant changes are necessary. Second, manual cutoff switches are now being provided in a number of vehicles, and consumers are becoming familiar with them. Some kinds of changes in the requirements for manual cutoff switches could potentially cause confusion. For example, Standard No. 208 currently requires that it be necessary to use manual means to reactivate the air bag after it has been deactivated by use of the cutoff switch. Considerable confusion could result from a change in this requirement such that air bags in newer vehicles reactivated automatically after use of a cutoff switch, while air bags in older vehicles did not.

While the agency is not adding additional performance requirements, it notes that manufacturers can voluntarily provide additional features, such as audible signals or extra lights, as long as the Standard's specific requirements are met.

NHTSA has concluded that there is merit to Nissan's request for a change in Standard No. 208's current air bag indicator light requirements. As discussed above, the Standard currently specifies that if a vehicle is equipped with a single indicator for both a driver and passenger air bag, and if the vehicle is equipped with a cutoff device, the readiness indicator must monitor only the readiness of the driver air bag when the passenger air bag has been deactivated by means of the cutoff device. The purpose of this requirement was to ensure that drivers would not miss a message that the driver air bag was not functional, simply because the passenger side bag was intentionally deactivated. The agency agrees with Nissan that this problem would not occur in a system that continuously monitors, diagnoses and displays system status for all components, including the driver air bag, passenger air bag, cutoff switch and the cutoff switch indicator, so long as the readiness indicator does not illuminate

solely upon the action of deactivating the passenger air bag via the cutoff switch. NHTSA is therefore making a change to accommodate Nissan's suggestion. The change provides additional flexibility and does not impose any new requirements.

#### C. Effective Date

NHTSA is making today's amendments effective 30 days after publication in the Federal Register. The agency finds good cause for this effective date. The amendments will ensure that vehicle manufacturers can continue to have a means of accommodating their customers' need to carry rear facing infant seats in vehicles without rear seats or with rear seats that are too small for these devices. The amendments do not impose any additional requirements but instead relieve a restriction.

### VI. Rulemaking Analyses and Notices

#### A. Executive Order 12866 and DOT Regulatory Policies and Procedures

NHTSA has 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 reviewed by the Office of Management and Budget under E.O. 12866, "Regulatory Planning and Review." This action has been determined to be "significant" under the Department of Transportation's regulatory policies and procedures. The action is considered significant because of the degree of public interest in this subject.

NHTSA estimates the cost of a voluntarily installed manual cutoff switch at a little over five dollars.

A full discussion of costs and benefits can be found in the agency's regulatory evaluation for this rulemaking action, which is being placed in the docket.

#### B. Regulatory Flexibility Act

NHTSA has considered the effects of this final rule under the Regulatory Flexibility Act. I hereby certify that it will not have a significant economic impact on a substantial number of small entities. The final rule primarily affects motor vehicle manufacturers. Almost all motor vehicle manufacturers would not qualify as small businesses.

#### C. National Environmental Policy Act

NHTSA has analyzed this final rule for the purposes of the National Environmental Policy Act and determined that it will not have any significant impact on the human environment.

*D. Executive Order 12612 (Federalism)*

The agency has analyzed this final rule in accordance with the principles and criteria set forth in Executive Order 12612. NHTSA has determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

*E. Civil Justice Reform*

This final rule does 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.

List of Subjects in 49 CFR Part 571

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

In consideration of the foregoing, 49 CFR Part 571 is amended as follows:

**PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS**

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

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

**§ 571.208 [Amended]**

2. Section 571.208 is amended by revising S4.1.5.1(b), S4.5.2, and S4.5.4, to read as follows:

**§ 571.208 Standard No. 208, Occupant crash protection.**

\* \* \* \* \*

**S4.1.5.1 Front/angular automatic protection system.**

\* \* \* \* \*

(b) For the purposes of sections S4.1.5 through S4.1.5.3 and S4.2.6 through S4.2.6.2 of this standard, an *inflatable restraint system* means an air bag that is activated in a crash.

\* \* \* \* \*

**S4.5.2 Readiness indicator.** An occupant protection system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. The indicator shall monitor its own readiness and shall be clearly visible from the driver's designated

seating position. If the vehicle is equipped with a single readiness indicator for both a driver and passenger air bag, and if the vehicle is equipped with a cutoff device permitted by S4.5.4 of this standard, the readiness indicator shall monitor the readiness of the driver air bag when the passenger air bag has been deactivated by means of the cutoff device, and shall not illuminate solely because the passenger air bag has been deactivated by the manual cutoff switch. A list of the elements of the system being monitored by the indicator shall be included with the information furnished in accordance with S4.5.1 but need not be included on the label.

\* \* \* \* \*

**S4.5.4 Passenger Air Bag Manual Cutoff Device.**

Passenger cars, trucks, buses, and multipurpose passenger vehicles manufactured before September 1, 2000 may be equipped with a device that deactivates the air bag installed at the right front passenger position in the vehicle, if all the conditions in S4.5.4.1 through S4.5.4.4 are satisfied.

\* \* \* \* \*

Issued on December 26, 1996.

Donald C. Bischoff,

*Executive Director.*

[FR Doc. 96-33306 Filed 12-30-96; 11:00 am]

BILLING CODE 4910-59-P