justifying the denial, the agency made no mention of the previous month's amendment. That amendment addressed his concern to a limited extent, i.e., it prevented key removal when the transmission is not locked in park for whatever reason, including mispositioning.

In a November 20, 1992 letter to Ford, NHTSA declined to adopt a request by that company to interpret Standard No. 114 as prohibiting key removal only when the transmission shift lever is in one of the available gear positioning detents other than park, i.e., reverse, neutral, drive, first, or second, and thus not when the lever is at points between those detents. The agency stated that

Key removal must be prevented in all circumstances save those specified in S4.2.1. Neither the transmission nor the transmission shift lever is locked in "park" when the lever is between the gear selector positioning detents.

After issuing the interpretation letter, NHTSA conducted compliance testing for Standard No. 114 and discovered apparent noncompliance with the transmission-locking requirement in vehicles of several manufacturers. NHTSA sent letters of notification of apparent noncompliance to Ford, Honda, GM, Suzuki, Hyundai, and Mazda. In its letter to Mazda, the agency enclosed a copy of the November 1992 interpretation letter it had sent to Ford.

On February 2, 1993, Mazda submitted a petition for rulemaking requesting that the agency amend the provision added by the May 1990 final rule by revising the compliance test procedure so that it would provide for testing for the possibility of key removal only when the transmission lever was in any of the detent positions. Mazda said that the procedure was needed to clarify the requirement to make the compliance test procedure "objective."

In its petition, Mazda characterized the agency's November 1992 interpretation as permitting "intentional mispositioning" of the transmission shift lever during compliance testing. Mazda argued that the rulemaking record did not indicate that the agency ever contemplated guarding against what that company terms "intentional mispositioning" of the transmission shift lever. Mazda argued that during its design and development of the vehicles which were the subject of the agency's testing, it never understood "intentional mispositioning" to be a reasonable and legitimate compliance test condition under Standard No. 114. Mazda also argued that, by not specifying what that company termed as an objective test procedure for determining compliance,

the standard fails to satisfy the requirement of 49 U.S.C. 30111(a) that standards "be stated in objective terms."

On March 14, 1994, in response to Mazda's petition, NHTSA issued a Notice of Proposed Rulemaking (NPRM) proposing to amend Standard No. 114 to prevent key removal only when the shift lever is fully placed in any designated shift position other than park. In issuing the notice, NHTSA rejected Mazda's "lack of objective test procedure" argument because the requirements were clear on their face, but found reason to reexamine the rule on other grounds.

In the NPRM, the agency tentatively concluded that the safety implications of the proposal were nonexistent or minuscule. For those noncomplying vehicles that required a deliberate effort to defeat the transmission shift lock, there would be no safety consequences from the adoption of the proposal, since there was no reason to believe that drivers would make such a deliberate effort. For those noncomplying vehicles that would allow the driver to inadvertently move the shift lever into what appeared to be the park position and remove the key when the lever is not actually in park-referred to as a "misshift"—the agency tentatively concluded that the safety impacts would be "minuscule." This is because two rare events (the driver inadvertently moving the shift lever to a position just short of park and a child subsequently playing with the shift lever) would have to coincide for a rollaway accident to

The NPRM proposed a compliance test procedure that would define whether the vehicle was "fully placed" in the various shift positions and whether it was "locked in 'park'." For the shift lever to be regarded as "fully placed" in one of the detent positions, the NPRM provided that position would have to be displayed on the transmission gear selection indicator and the vehicle would have to respond in a certain way to confirm that the transmission was actually in the indicated detent position. "Fully placed in park" was defined as being when the vehicle does not roll away ("rollaway" being defined as moving more than 100 mm) on a 10 percent grade after the parking brake is released. "Fully placed in neutral" was defined as being when activation of the accelerator pedal does not cause the car to move. "Fully placed in a forward or reverse drive position' was defined as being when the vehicle can be driven under its own power.

## **Summary of Comments to Notice of Proposed Rulemaking**

Industry commenters supported the proposed change to the transmission locking requirements, without explaining their reasons for doing so. Mazda stated only that the proposed requirements were sufficiently objective. Chrysler agreed that the less stringent transmission lock requirements in the NPRM provide greater flexibility for the manufacturers. but found it "difficult to imagine mechanical systems" designed to prevent key removal only at detent positions. However, Chrysler did "not

object" to the rulemaking.

The industry commenters all shared two objections to the proposed rule. The first resulted from the NPRM's substitution of the word "or" for "and" in S4.2.1(a). The existing requirement in that paragraph states "... shall prevent removal of the key unless the transmission or transmission shift lever is locked in 'park'..." (emphasis added). Ford, GM, and Chrysler objected to the NPRM's change in the conjunctive language of S4.2.1(a)(1) from "or" to "and" because it requires lockup of *both* the transmission and the shift lever, rather than only one or the other. Ford believed that this change was inadvertent because NPRM's preamble did not reflect a desire to require manufacturers to change current designs. Instead, it indicated an intent to provide manufacturers with greater flexibility. Ford stated that locking both the transmission and the shift lever would require design changes. GM stated that the added requirement was unnecessary and implied that it was impractical, because shifting into park may initially only position the parking pawl on the top of a tooth of the planetary carrier, and that further vehicle movement may be necessary to permit pawl engagement in a slot between the teeth. Chrysler believed locking either the transmission or the shift lever is adequate to protect against injuries.

Ford, GM, and Chrysler also urged the agency to increase the amount of vehicle movement (100 mm) that is permitted in the compliance procedure before the vehicle is considered to have experienced "rollaway." Ford stated that a small percentage of "light truck type vehicles with large tires" may travel slightly more than 100 mm, and suggested increasing the distance to 150 mm. Chrysler also suggested 150 mm as an appropriate distance.

GM objected even more strongly to the 100 mm rollaway definition. GM commented that the compliance test