

VW's suggestion and vehicles must comply when the rear impact test is conducted on either side of the vehicle.

Further, our cost study indicated that compliance with this final rule will not require major structural redesign (as stated by Alliance and DC), or necessitate an increase in vehicle stiffness (as stated by VW). Because there is no need to increase the vehicle stiffness, this final rule does not increase the potential for whiplash injuries in lower crashes as suggested by VW.

#### *C. Side Impact Test Procedure*

The agency is replacing Standard No. 301's current lateral crash test with the side impact crash test specified in Standard No. 214. The Standard No. 214 side impact crash test specifies that a stationary vehicle be struck on either side by a 1,368 kg (3,015 pound) MDB. As noted above, Standard No. 214 currently specifies an impact speed of 54 km/h. In order to provide an appropriate tolerance without affecting the stringency of the test, the agency proposed to change the test speed to 53  $\pm$  1 km/h and adopt it for Standard No. 301. No comments addressed this issue, and we are adopting that proposal.

The agency is specifying that the MDB be lowered 50 mm (2 inches) for the rear impact test to simulate pre-braking. However, the agency is not specifying that the MDB be lowered for the side impact test. The test conditions of Standard No. 214 were intended to reflect a "worst case" scenario for occupants riding in the struck vehicle in that the striking vehicle was assumed not to be braking prior to impact. A braking vehicle would strike lower than a non-striking vehicle, potentially engaging more of the side sill of the struck vehicle. Full engagement of the sill dissipates the crush energy more effectively than engagement of the door structures located above the sill, resulting in less intrusion and deformation along the struck side where fuel system components (e.g., fuller filler neck and tube) are located. NHTSA believes the integrity of those fuel system components would be tested in a more severe environment if the barrier were not lowered. For these reasons, NHTSA has decided not to lower the MDB for the side impact test.

#### *D. Door System Integrity*

NHTSA believes that a post-crash door operability requirement could be a practicable, reasonable safety enhancement. However, the agency has decided not to add a post-crash door operability requirement to Standard No. 301 or Standard No. 206 in this

rulemaking. The agency has not developed a practical, objective, and repeatable test procedure for testing door operability. The agency is specifically concerned with developing specifications for the type and magnitude of force needed to test door operability. The agency notes that none of the commenters who supported a door operability requirement suggested a test procedure.

Accordingly, NHTSA will need to conduct research before proposing any post-crash door operability requirement and will consider adding a post-crash door operability requirement to Standard No. 206 or Standard No. 301 in a separate rulemaking.

#### *E. Lead Time*

##### *1. Rear Impact Test Upgrade*

In the Preliminary Regulatory Evaluation for the NPRM, the agency said that most vehicles needing modification to meet the upgrade rear impact test would need only minor modifications and estimated that those modifications could be completed in 33 months. Based on that estimate, we provided a lead time of three years.

The Alliance said "significant vehicle redesign and retooling for production will likely be required in a number of vehicles." It suggested "(t)he small number of tests conducted by the NHTSA, often with a sample size of one vehicle, simply is inadequate to identify whether vehicle changes are required or for any manufacturer to assure compliance for all its vehicles." The Alliance suggested that the agency phase in the requirements, beginning not earlier than three years after the issuance of the final rule, according to the following annually increasing percentages of production: 25%, 40%, 70% and 100%.

In their comments on the NPRM, DC and Honda argued that some vehicles would need more than just minor modifications and that therefore additional lead time should be provided. Both suggested that the entire rear ends of some vehicles would have to be redesigned, although neither identified any specific models in need of such changes. Honda generally cited crash testing in support of its argument, but gave no details about that testing. DC suggested the same phase-in recommended by the Alliance. Honda suggested that the agency phase in the requirements, beginning not earlier than three years after the issuance of the final rule, according to the following percentages of production: 10%, 30%, 70% and 100%.

While the agency continues to believe that a three-year lead time is sufficient for most vehicles in need of modification, it agrees that it is desirable to provide additional lead time to accommodate any new models that were designed and developed based upon the current requirements. The agency recognizes that vehicle platforms, once developed, are typically used for a number of years without major structural modification. We also recognize that in order to meet the requirements of FMVSS No. 301, a vehicle, without modification, must meet the static roll over requirements following an impact in a barrier test. Consequently, we have decided that the upgraded rear impact test will be phased-in, beginning on September 1, 2006, according to the following percentages of production: 40%, 70% and 100%. We believe that this combination of lead time and phase-in will allow sufficient time for existing platforms to be redesigned to comply with all of the requirements of FMVSS No. 301, and that the four year phase-in proposed by the Alliance is not necessary.

We also believe that it is not necessary to allow an optional "0%, 0%, 100%" three-year phase-in for limited-line manufacturers as proposed by Porsche. A similar phase-in exception for limited line manufacturers is present for the advanced air bag requirements of Standard No. 208. However, the advanced technology requirements that compounded the disparity between the phase-in requirements of the Advanced Air Bag Rule for limited line manufacturers and more diverse manufacturers is not present here.

##### *2. Side Impact Test Upgrade*

In the Preliminary Regulatory Evaluation for the NPRM, we said:

Since almost all vehicles pass the Standard No. 214 test without fuel leakage and all manufacturers have done these tests on their passenger cars and light trucks and vans up to 6,000 pounds GVWR, the agency is proposing a one year leadtime after the final rule for implementing the Standard No. 214 test requirement for the lateral test.

Some vehicle manufacturers supported the one-year lead time proposed in the NPRM for the side impact test upgrade, but recommended that the agency add a phase-in after this lead time. The Alliance asked for additional lead time for vehicles not previously subject to Standard No. 214, saying:

Until a complete and thorough evaluation program is completed for each model, the actual and exact extent of changes to each