Underride Hearing Leads
To Call For Rulemaking

The chairman of the Senate Consumer Subcommittee has urged representatives of the Federal Highway Administration and National Highway Traffic Safety Administration to pursue the development of requirements for rear-end truck and trailer designs that would be effective in preventing underride in rear-end collisions of cars into trucks.

At a hearing, Subcommittee Chairman Sen. Wendell Ford (D-Ky.) repeatedly questioned Department of Transportation witnesses on the adequacy of a draft standard announced by FHWA for commercial vehicles in interstate use, and on the lack of any standard or proposed standard for new vehicles from NHTSA. These two agencies both have legislative authority to seek a solution to the problem of underride crashes, which was the focus of the subcommittee’s hearings on truck-car crash safety.

An underride crash, as the announcement of the hearing stated, “occurs when an automobile collides into the rear-end of a large tractor-trailer, and, because the rear end of these trucks is high off the ground, the automobile slides under the trailer. When this occurs, the rear-end of the trailer intrudes into the passenger compartment, resulting in death or serious injury to the vehicle occupants.”

The FHWA and NHTSA representatives followed testimony from William Haddon, Jr., M.D., president of the Insurance Institute for Highway Safety, and A. B. Kelley, IIHS senior vice president, who described crash tests conducted by

(Cont’d on page 3)

Adams Reopens Passive Restraint Issue

Secretary of Transportation Brock Adams has reopened the possibility of mandatory passive restraints in future autos. Adams said this action voids the “agreement” of former DOT Secretary William Coleman, Jr. with auto makers to produce a “demonstration” fleet of passive restraint equipped autos. (See Status Report, Vol. 12, No. 2, Feb. 3, 1977.)

Adams has scheduled a public hearing for April 27 at which he will consider three options:

- Continuation of the present standard which allows auto makers to adopt one of three basic methods for providing occupant protection: lap and shoulder belts, a completely passive protection system, or a passive restraint system for frontal crashes and lap belts for protection in side and rollover crashes;

- Mandatory passive restraints: either initially as full front seat protection, or, as an alternative, passive protection for either the front right seat position or the driver’s position, to be followed by full front seat protection at a later date. Either alternative would take effect with the 1981 model year;

- Mandatory safety belt use laws aimed at achieving a belt usage rate of 80-85 percent. Adams proposed that this be accomplished through “Congressional approval of a standard . . . which would affect the State’s highway safety funds, or through

(Cont’d on page 2)
enactment of legislation akin to the 55 mph speed limit law, which would affect the approval of Federal-aid highway construction projects.” (The province of Ontario, which has adopted a mandatory belt use law, has only been able to achieve a usage rate of approximately 50 percent. Among teenage drivers this percentage is even lower – approximately 25 percent. See Status Report Vol. 11, No. 10, June 28, 1976.)

Although Adams mentioned that the passive restraint proposal had the disadvantage of only affecting approximately 10 percent of the entire vehicle population each year, he did not mention the possibility of combining passive restraints with mandatory belt use laws. At a press conference announcing his proposals, Adams expressed doubts about the efficacy of enacting belt use laws, saying that he would have to hear from the governors that such laws would be enforceable.

**AGREEMENT VOIDED**

At the press conference, Adams was asked by a reporter if Coleman’s agreement with the auto makers to produce a demonstration fleet was now “out the window.” “That is correct,” Adams replied. “The decision by Secretary Coleman said that if there was a proposed rulemaking that moved forward, that they [the auto makers] didn’t have to carry out the agreements.”

Adams pointed out that Coleman found that air bags are technologically feasible and would prevent thousands of highway fatalities annually. Coleman refused, however, to mandate passive restraints because of possible consumer resistance based on reaction to the ignition interlock system.

Adams said he found that line of reasoning faulty. “I believe a decision based upon consumer resistance needs reconsideration because I cannot agree that consumers would respond to passive restraints in the same fashion as the ignition-interlock,” Adams said. He called the interlock a “forced action” system. Interlock cars required vehicle occupants to engage their safety belts before the car could be started. Adams said that this was a “constant interference with the occupant’s behavior and understandably became a source of irritation.

“In direct contrast,” Adams said, “the passive restraint system requires no action to be effective. In the case of the inflatable cushion-type restraints [air bags], it is not even visible to the occupant.”

Adams also said, “I am concerned that the negotiated contracts between DOT and the auto makers represent a 5- to 8-year delay in any decision to install passive restraints in all passenger cars.”

**Meeting Announcement**

To supplement the written comments on this proposal, I have determined to hold a one-day public hearing on the issues involved in this proposal, to be chaired by me with assistance from the Department staff. The views of all interested persons, and in particular component suppliers, vehicle manufacturers, and researchers or other specialists in occupant restraint technology are invited. The meeting will be conducted on April 27, 1977, at the Departmental Auditorium (Constitution Avenue between 12th and 14th Streets, N.W., Washington, D.C.), beginning at 9:30 a.m. Those who wish to make presentations should contact Mr. Hugh Oates (Office of Chief Counsel, National Highway Traffic Safety Administration, Washington, D.C. 20590) (202-426-9511) not later than April 13, 1977. Presentations may be limited by available time.

—Brock Adams
SMALLER CARS

Adams tied his decision to reconsider passive restraints with current DOT rulemaking on mandatory fuel economy standards. He said that any rule mandating passive restraints would be promulgated by July 1, 1977, the deadline that Congress has established for fuel economy levels for 1981-1984 autos. Adams noted that the new fuel requirements will result in cars that will be smaller, lighter and less safe for occupants, “because less vehicle mass and crush distance are available to absorb crash forces. Improved vehicle structures are expected to compensate for reduction in weight and size to some degree, but it appears that the safety need for occupant protection may increase in the relatively near future.”

Written comments on Adam’s proposal should be submitted to Docket No. 74-14, Room 5108, Department of Transportation, 400 Seventh St., S.W., Washington, D.C. 20590 before May 27, 1977. The complete text of the proposal was published in the March 24, 1976 Federal Register.

Financial assistance is available from DOT for individuals or organizations that wish to participate in the rulemaking, but are financially unable to do so. Further information on this assistance is available from Hugh Oates at 202/426-9511.

(Cont’d from page 1)

the Institute which demonstrated the underride problem. They also showed films of prototype guards, developed by IIHS, designed to prevent damage to the passenger compartments of impacting cars in underride crashes. (See story on page 5.)

The only existing standard on underride protection is the Bureau of Motor Carrier Safety’s so-called “rear end protection” standard, administered by FHWA, which was written 25 years ago, applies only to carriers in interstate commerce, and contains no effective height or strength requirements.

EXISTING DEVICES INADEQUATE

Lester Lamm, acting administrator of FHWA, claimed that BMCS investigations of rear-end collisions “in which automobiles were the striking vehicle indicated that, generally, the devices [that meet the existing BMCS standard] have served the purposes intended for lower speed collisions. The tragic accidents in which automobiles have penetrated the rear of commercial vehicles beyond the windshield pillar post have commonly involved extremely high speeds, inadequate fabrication of the rear-end protection device, or total absence of the device.” The IIHS tests, however, showed that a crash of even a sub compact car, the Chevette, which is among the lightest on the road, into a commonly used underride guard meeting the BMCS standard at a speed less than 30 miles per hour resulted in severe damage to the passenger compartment of the car.

Lamm admitted that FHWA saw a “need to reassess the adequacy of the rear end protection device to improve the survivability of the persons involved” in that type of crash. Ford asked, “Why can’t we do better than the standard that we have now?”

Both Lamm and Robert Carter, associate administrator of NHTSA, testified that at present underride crashes probably kill 100-200 persons a year and perhaps as many as 300. FHWA data, Lamm said, indicate that “automobile rear-end collisions with trucks are on the increase.” Carter admitted in response to a question from Ford that these figures did not make allowance for the increasing number of smaller cars on the road. Referring to cars used in the IIHS crash tests, Ford said, “The [Ford] Granada is the type of
vehicle, or the size of vehicle we are going to see more of in the future. The Chevette is the size we are going to see even more of.”

Ford suggested that NHTSA and FHWA “pursue” the underride guard prototype made by IIHS from materials that cost only $20 more than a commonly used existing device. When Carter said he completely agreed, Ford told him, “Don’t say any more, then.”

FHWA PROPOSAL

When Lamm revealed a draft for a new proposed standard that, he said, was under “active consideration,” Ford commented that its sudden appearance was “like a military inspection. When you hear the IG’s coming, you clean up the barracks. When you are naturally going to have an oversight hearing, they start issuing regulations.”

The draft proposes a maximum clearance from the road of 24 inches, rather than the present 30 inches. (The IIHS prototypes were 21 inches from the road.) Earlier NHTSA proposals, since cancelled, suggested a maximum clearance of 18 inches which, Kelley said, showed awareness of “what was about to happen and what will be happening in the future” in car design. He pointed out that, as both industry and government promoted “designs of lighter weight, smaller, more fuel economical, and more resource conserving vehicles, there is every reason to think that the heights and the sizes are going to continue to grow shorter, grow smaller, generally, and lower for the fronts of the cars...”

The FHWA draft proposes a structural strength requirement that would vary according to the gross vehicle weight rating of the truck or trailer. There would be no requirement for retrofit of the device on the

(Cont’d on page 8)

Institute Submits Underride Petitions

Following its testimony before the Senate Consumer Subcommittee, the Insurance Institute for Highway Safety petitioned both the National Highway Traffic Safety Administration and the Federal Highway Administration to start rulemaking on underride protection. The petition to NHTSA stated:

“The Insurance Institute for Highway Safety hereby petitions the National Highway Traffic Safety Administration to initiate rulemaking to establish motor vehicle safety standards for the rear ends of trucks, trailers, semi-trailers and similar type vehicles to prevent or reduce the probability of other vehicles underriding them when rear end collisions take place...”

“The standard should establish performance requirements for the rear ends of all newly manufactured trucks, trailers, semi-trailers or similar vehicles to provide reasonable protection to drivers and passengers of passenger vehicles when rear-end collisions take place. The standard should take into account the varying sizes and weights of passenger vehicles (sub compact to full size) and the range of speeds over which such collisions occur.”

The petition to FHWA requested that the agency “initiate rulemaking to upgrade existing Motor Carrier Safety Regulation on rear end protection, 49 CFR 393.86, so that this provision will contain effective height and strength requirements for all vehicles under the jurisdiction of FHWA (Bureau of Motor Carrier Safety).”

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Federal Rule Called ‘Sham’

IIHS Crash Test Research Demonstrates
Car-Into-Truck Underride Problem, Solutions

The Insurance Institute for Highway Safety has released the results of a crash test program focused on the deadly problem of car-into-truck underride crashes.

Appearing as lead-off witness at a March 16 Senate investigative hearing, the institute’s president, William Haddon, Jr., M.D., presented crash test films and analyses showing that:

- The 25-year-old federal “rear end protection” standard for devices on the backs of tractor-trailers and trucks is “a sham.”

- Even in moderate-speed impacts, cars crash-tested by the Institute into the rears of tractor-trailers equipped with a device meeting the federal “rear end protection” standard underrode the trailers. The cars experienced massive passenger compartment intrusion and battering of the occupant test dummies.

- Effective devices to stop underride have been technologically available for years. As Haddon showed in films, the Institute developed lightweight prototypes of improved rear-end protection devices, which, in crash tests, completely prevented damage to the passenger compartments of impacting cars. (See photos.)

Haddon appeared before the Consumer Subcommittee of the Senate Committee on Commerce, Science and Transportation. He was accompanied by IIHS’s senior vice president, A.B. Kelley, who described the Institute’s crash test films.

The IIHS crash test program makes clear, Haddon told the subcommittee, that “there is absolutely no engineering justification for rear-end truck and tractor-trailer designs that permit impacting cars to underride, with resulting penetration of their passenger compartments and massive, sometimes fatal, injury to the human contents.”

In addition to Institute crash test films, Haddon and Kelley showed news and police photos of real-world underride crashes — crashes that resulted in occupant death and decapitation or smashing of the head and upper torso — and photos of contemporary truck and tractor-trailer rear-end designs. Comparing the skimpily shielded rear ends of many of the trucks with photos of automobile front ends, Haddon showed that in their impacts with the backs of trucks and trailers the cars usually are afforded little or no protection from underride and its lethal consequences.

Haddon called it a “tragic puzzle” that “both the problem of needless passenger compartment penetration in auto-truck rear underride crashes, and the availability of solutions to it, have been known for years both to industry and government — yet, neither has acted to apply the solutions.”

“Blood has been shed, heads literally have rolled and countless thousands of Americans been injured because those agencies did not act. Further inaction would be inexcusable,” Haddon warned.

OPTIONS FOR ACTION

He identified options for government action as follows:

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"For trucks and tractor-trailers that will be manufactured and sold in the future, the National Highway Traffic Safety Administration [of DOT] can and must, under its statutory obligation, adopt a performance standard requiring effective protection for automobiles in their impacts into the rear ends of trucks, not only in low and moderate speed impacts but across the entire range of expected travel speeds on today’s highways at today’s posted limits . . . .

"For trucks and tractor-trailers already on the highway — at least those in interstate commerce — the Bureau of Motor Carrier Safety [of DOT] has for decades had the duty and authority to require installation of effective rear-end underride crash protection. Yet BMCS has failed to come up with anything but its so-called ‘rear end protection standard,’ a piece of regulatory sham that is worse than no standard at all.

A-1: A 1976 Ford Granada crashing at 32.8 mph into the rear of a parked tractor-trailer equipped with a Fruehauf underride guard that meets the current Federal (BMCS) standard. Notice the huge amount of passenger compartment deformation.

A-2: Taken moments after the impact, it shows the huge extent to which the car’s structure and the trailer’s rear-end structure have deformed to intrude the occupant compartment. During the crash, the occupant dummy’s head came into violent contact with the trailer’s intruding rear-end structure.
“For people in car crashes who have died or been injured as a result, BMCS can offer no acceptable explanation. But at least for those who will find themselves impacting truck rear ends in the future, for whatever reason, it can move immediately to require effective protection.”

Haddon pointed out that a “large number of the trucks and tractor-trailers in use do not come under federal jurisdiction. Once they have been manufactured and sold, they are regulated for safety and other purposes by state governments. Therefore, the Institute is transmitting to the Governor of each state a copy of our testimony . . . , of the IIHS crash test films, and other technical reports to be submitted to the subcommittee’s record in a few days. We are asking each Governor to see that this material is forwarded to the state agency responsible for overseeing the safety of trucks and tractor-trailers . . . for action.”

B-1: A 1976 Ford Granada crashing at 34.1 mph into the rear of a parked tractor-trailer with an improved, prototype underride protection device developed by the Insurance Institute for Highway Safety for use in this test series. The guard withstood the impact sufficiently to prevent the car’s passenger compartment from underriding the trailer and being torn open by it.

B-2: At the conclusion of the crash the passenger compartment is intact; during the impact the occupant dummy did not come into any contact whatsoever with the trailer’s rear-end structure.
four million commercial vehicles subject to BMCS regulations that are currently on the highways. There would also be "an additional 5 million intrastate commercial vehicles, including many farm vehicles, [that] will not be directly covered," Lamm said.

[NHTSA started rulemaking in 1969 with an advance notice proposing "rear underride guards to minimize the probability of injury to occupants of vehicles colliding with the rear of trucks, buses and trailers." After issuing two successive proposals for a standard requiring guards with an 18-inch maximum clearance, NHTSA cancelled its proposed standard in June 1971. In the notice cancelling the proposal, NHTSA cited a cost-benefit study which, it said, showed that the reduction in lives and injuries would not "be commensurate with the cost of implementing the proposed requirements." IIHS testimony pointed out that the NHTSA study was based on the incorrect assumption that improved guards would weigh substantially more than existing devices. The IIHS prototypes demonstrate that improved protection can be achieved with little or no weight penalty, Haddon said.]

Ford asked, "Why isn't NHTSA also proposing a new standard? It seems odd to me for two agencies of the same department to have different approaches." Carter replied that NHTSA would "most anxiously follow" whatever FHWA learned "in their study. As with any rulemaking action, if, indeed, new data indicated that rulemaking action was in order for the other vehicles, then we would proceed." An NHTSA standard would apply to the production of all new vehicles, including those in intrastate business that are not regulated by BMCS.

When Ford asked Lamm how long it would take for FHWA to make a change in their regulation, if they determined a change should be made, Lamm said he had "a feeling that there will be two sides expressed to this question, and it is likely that it will take a good deal of time to evaluate . . . ." The proposed standard would be issued, he said, when internal departmental review was completed.

Carter Warned About Wage and Price Control

The chairman of the House Oversight and Investigations Subcommittee has warned President Carter that the President's stated intention of strengthening the role of the Council on Wage and Price Stability may thwart consumer protection measures if the Council continues to operate the way it has in the past.

In a letter to the President, Rep. John Moss (D-Calif.) reminded Carter that the Council's statutory "mandate is limited to reviewing and appraising inflationary impact. It does not extend to preventing or delaying federal agency action."

Moss said that in a recent study of several regulatory agencies, the subcommittee "learned that the Council's participation frequently exceeded this mandate, and amounted to interference in health and safety programs mandated by Congress." (See Status Report, Vol. 11, No. 17, Nov. 2, 1976.)

Moss explained that "the Council has, sometimes in public, sometimes in confidential communications, pressured the agencies into major expenditures of time and effort to produce detailed cost-benefit studies, even where such studies are not required under the governing statutes and are not practicable. The result of these pressures, clearly not contemplated in the Council's legislative mandate, has been to delay or terminate agency efforts to produce effective consumer protection regulation mandated by the Congress . . . ."

"While we do not question the desirability of assessing the impact of regulations while they are still in the proposal stage, we think it inadvisable to prevent needed regulation from going forward pending the

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Examples Of CWPS Role In Rulemaking

In his letter to President Carter regarding the Council on Wage and Price Stability, Rep. Moss cited several examples of the Council's involvement in rulemaking activities.

Two of the examples:

"On Feb. 11, 1975, the Council submitted formal comments to the National Highway Traffic Safety Administration urging that the implementation of an improved braking standard for cars and light trucks ‘be indefinitely delayed’ pending a detailed, formal evaluation of its economic impact. Since then, a standard for cars has gone into effect; light trucks and vans, even more numerous in recent years, are still not covered by any federal brake standard."

"On Nov. 26, 1976, the Council raised serious questions about a proposed regulation to guide NHTSA’s efforts to gather cost information from manufacturers on proposed vehicle safety standards. The Council believed that the regulators might impose unreasonable additional costs on manufacturers. The regulations, intended in part to make possible better economic impact analysis by NHTSA, have never been issued."

completion of extended cost-benefit studies which are by nature speculative because of the impossibility of quantifying certain costs and benefits,” Moss said.

Carter was told that the “Council seeks to make it a prerequisite to the issuance of a standard that the agency produce a cost-benefit study of quality acceptable to the Council, showing benefits which exceed costs. This policy, however, strains the device of cost-benefit analysis beyond its appropriate limits, and leads agency officials to undervalue other criteria for issuing standards set forth in the governing statutes. One consequence is vast expenditures of agency manpower producing lengthy studies which contribute marginally if at all to resolving regulatory issues.”

Moss urged Carter to direct “the Council into functions authorized by statute, which do not place unreasonable burdens on the process of issuing consumer protection measures.”

1976 Status Report Index Available


Also available are copies of indexes, published earlier, for the 1971 through 1975 issues of Status Report. They can be obtained by writing to the same address.
Claybrook Nominated For NHTSA Administrator

President Carter announced on March 18 that he will nominate Joan Claybrook to be administrator of the National Highway Traffic Safety Administration. Claybrook presently heads Ralph Nader’s Congress Watch, a public interest lobbying organization.

From 1959 to 1965 Claybrook was a research analyst for the Social Security Administration. In 1965 and 1966 she was a Congressional Fellow for Rep. James A. McKay and then-Senator Walter Mondale. She then became a special assistant to the administrator of the newly-formed National Traffic Safety Agency (changed to NHTSA in 1971). She did research for Nader’s Public Interest Research Group from 1970 to 1973, when she joined the staff of Congress Watch.

Claybrook is a graduate in history from Goucher College and received a law degree from Georgetown University Law Center in 1973.

Confirmation hearings on her nomination are scheduled by the Senate Committee on Commerce, Science and Transportation for March 29.

Court Questions FHWA On Certification Acceptance

A Federal District Court has ordered the Federal Highway Administration to “articulate the basis for the 1974 [FHWA] finding that Georgia had the capability to enforce its [own] highway standards” under FHWA’s so-called Certification Acceptance program.

Certification Acceptance permits states to apply their own standards to highway construction projects on most of the federal-aid system. Under the plan, states “certify” to FHWA that they will carry out their highway projects “in accordance with state laws, regulations, directives, and standards which will accomplish the policies and objectives” established in the Federal-aid Highway Act or in FHWA requirements and guidelines. (See Status Report, Vol. 11, No. 5, March 19, 1976.)

The Court said that, on the basis of the evidence presented by the agency, “it is simply not feasible for the Court to discover the rational basis, if any, of that agency’s decision” regarding Georgia’s standards enforcement capability.

The order is the latest development in a suit by the Center for Auto Safety against the Certification Acceptance program. The suit charges that the Certification Acceptance regulations were promulgated without proper public participation; that they did not set forth adequate criteria for judging an applicant state’s eligibility; and that Georgia (whose application was accepted even before the initial regulations became final) had not demonstrated a capability to manage its federal-aid highway program properly under the plan.

In the recent decision, the Court declined to address at this time the center’s contention that the Certification Acceptance regulations are inherently defective in that they do not describe the criteria for determining state capability to enforce standards. The Court noted in this regard that there has been no

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“final agency action” subject to judicial review, since FHWA has been reconsidering the regulations for several months in light of the CAS comments on the “capability” question. But the Court also noted that FHWA “is obligated to complete reconsideration within a reasonable period of time or it will risk having its failure to act treated . . . as final, reviewable agency action.”

The Court suggested that, when FHWA attempts to reconstruct the basis for its capability decision in the case of Georgia, the agency itself may discover that “further consideration of [that] capability finding is warranted.” In that event, the Court said, FHWA should ask the Court for the opportunity to reconsider its decision that Georgia can operate effectively under Certification Acceptance.

The suit is *Center for Auto Safety v. Tiemann*, U.S. District Court for the District of Columbia, Civil Action No. 74-1662.

**Michigan Students Rally Behind Helmet Law**

A group of high school and college students in Michigan has organized to save the state’s motorcycle helmet law.

The organization, known as SMASH (Students for Michigan Attaining Safer Highways), has sponsored demonstrations supporting the state’s helmet law, and members have written state legislators “to let them know that there are people who oppose efforts to repeal the law,” according to Walt Luks, a SMASH officer. Luks told *Status Report* that before SMASH organized, legislators only heard the views of some motorcyclists who wanted the helmet law repealed. The general public isn’t aware of efforts to repeal the helmet law, Luks said.

Last year Michigan legislators considered two repeal bills. They were referred to the Civil Rights Committee, which held hearings. The bills were never reported out of committee. So far this year a repeal bill has not been introduced in Michigan. However, SMASH and Michigan highway safety officials expect such a bill to be introduced.

Repeal of Michigan’s helmet use requirement would “affect very heavily people of our age,” Luks said. “We don’t want to see the helmet law repealed . . . Suicide is illegal,” he added.
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