

NHSB DRAFTS 'MASTER PLAN' FOR FUTURE VEHICLE STANDARDS

What can the American consumer expect in the way of federal motor vehicle safety regulations between now and 1974?

According to a draft "master plan" now circulating within the National Highway Safety Bureau, it can expect considerable activity — particularly in the areas of crash loss reduction, pre-crash vehicle performance and used-car safety.

In 200-plus pages of prose and tables, the "Program Plan for Motor Vehicle Safety Standards," drawn up in the Bureau's Motor Vehicle Programs Service office, details the agency's current and anticipated vehicle standards proposals. Following are highlights of the draft:

CRASH LOSS REDUCTION

In addition to — and possibly instead of — a rule requiring that new cars be equipped with passive restraints such as air bags (now tentatively planned to take effect Jan. 1, 1972), the Bureau is considering requiring that car seats be designed and built to protect passengers from side impacts, effective Jan. 1, 1973; that safety belts be made so the car won't start unless occupants are wearing them starting Jan. 1, 1972, and that special restraints be available for pregnant women, effective Mar. 1, 1973.

"Inflatable or pop-up types" of head restraints to improve driver visibility over present styles are the subject of a rule that may become effective Jan. 1, 1973.

Side and rear car windows would be required (as are windshields already) to stay in place in a crash under a rule that may become effective July 1, 1973. Progress hinges partly on the Bureau's ability to develop a proposal "not in conflict with the ability to escape" after the crash.

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Minimum strength standards for car roofs in rollover crashes may be a reality by Jan. 1, 1973, depending on the outcome of an on-going research contract. Much earlier than that — possibly by Sept. 1, 1971 — manufacturers may have to "publish consumer information on the extent of roof collapse when the vehicle is dropped on its roof from a specified height."

A "fuel-impermeable barrier or firewall to prevent fuel spillage into the vehicle interior" during severe crashes is envisioned by a rule tentatively planned to take effect Sept. 1, 1973, but "research is needed" before the proposal can be set in motion.

In addition to its current proposals for stronger side doors to inhibit lateral intrusion in crashes and to have car makers publicize the strength of their side doors, the Bureau foresees, possibly effective in September 1974, a rule requiring "some energy absorption in addition to vehicle side strength" to mitigate lateral intrusions.

Car stylists will take special notice of an "exterior protrusions" proposal to "regulate the contours of the vehicle and of nonfunctional ornamental add-on attachments on the exteriors . . . to protect pedestrians by inhibiting injury producing devices up to vehicle speeds of 15 miles per hour and also reduce the amount of injury at higher speeds." Since the rule "should not increase cost nor significantly affect production schedules" for car makers, the Bureau sees it taking effect as early as July 1, 1972. The Bureau states "a cost saving may even result."

Because it would be "impracticable" for truck and bus makers to engineer underride protectors into their new vehicles before Jan. 1, 1972, the Bureau is not planning to have its long-discussed rule take effect before then. The rule would require that heavy vehicle rear ends be designed against deadly car underride in rear-end crashes. The Bureau already is thinking ahead to the possibility of effecting, by Jan. 1, 1974, a rule requiring that the underride protectors be "energy absorbing devices" rather than "rigid barriers."

By Jan. 1, 1974, the Bureau hopes to have greatly upgraded its general interior impact protection standard — covering padding, instrument panel protrusions, windshield headers, etc. — to "specify 20 mile-per-hour protection." It comments that, "The question of the optimum combination of extensive padding versus air bags will be subject to much study and testing for the next several years."

As a passenger protection item (the Bureau is forbidden by law to set standards to reduce economic loss in crashes), front and rear end design is not only the subject of a current Bureau rulemaking proceeding — Bumper Height and Effectiveness — but also is slated for consideration in two future dockets. One would set energy absorbing bumper criteria in the 10-20 mile-per-hour crash range for trucks and buses, starting Sept. 1, 1974. The second would specify "minimum structural requirements and maximum 'G' levels for rear ends of passenger cars" to reduce "occupant compartment penetration (or) distortion," effective Jan. 1, 1973.

TIRES, WHEELS

The Bureau hopes by May 1, 1972, to have in effect a rule setting age limitations on tire casings which may be retreaded.

Wheels would have their safety performance regulated, "with particular emphasis on dimensional requirements as they affect vehicle safety and dynamic modes of testing for performance and durability," under a standard planned tentatively to take effect May 1, 1973.

Present performance levels for new tires for cars would be upgraded and expanded to encompass "treadwear, traction and force variation" under a rule that may take effect Jul. 1, 1973.

And a standard may go into effect by Nov. 1, 1972, requiring installation of "high-low pressure tire inflation warning devices The cost, depending on how this requirement is implemented (e. g., indicator on tire versus in the vehicle) could range from negligible to less than one dollar per vehicle. "

CRASH CAUSATION

An "alcohol detection and interlock" device, "although still in the experimental stage," may be required on cars, trucks and buses by Jan. 1, 1975. (There's a good likelihood that all new vehicles would at least have to have a mounting bracket enabling such a device to be installed at the discretion of state authorities.) The device would "discriminate between intoxicated and sober drivers" by making the driver perform a reaction or judgement task as a prerequisite to starting the car. As an after-market item, "A device based on human reaction time is expected to cost less than \$10. "

The maximum amount of carbon monoxide permissible in the passenger compartment over a stated period of time would be specified by a rule that may take effect Oct. 1, 1972. The Bureau says that "2.4 million vehicles had to be recalled for exhaust system defects in a two and one-half year time span, indicating a need for this standard. "

Having apparently abandoned its earlier intention to require speed control devices on new cars, the Bureau now is thinking of adopting, on Oct. 1, 1972, a rule requiring "a speed warning device that will operate the vehicle's four-way emergency flasher and/or other warnings both inside and outside the vehicle when the pre-set speed has been exceeded." But first, "A speed level threshold for the warning device must be determined. "

An "emergency warning device, to be carried in vehicles, which can be set up on or near the roadway to warn approaching vehicles of the presence of a stopped vehicles," would result from a rule that may be adopted effective Jan. 1, 1972. "Preliminary cost estimates have ranged from \$3 to \$7 per device, although very large volume production may reduce these estimates by at least half. "

Between January 1972 and August 1975, the Bureau hopes to put into effect a series of standards governing the handling characteristics of new vehicles. It stresses that more research, including some embraced in current NHTSB contract projects, is needed before specific proposals can be advanced.

"Considerable redesign and re-tooling" by car makers would be required by an "ergonomics and human factors" rule amendment that the Bureau envisions taking effect July 1, 1974. Among other things it would specify arm- and leg-reach limits for most restrained drivers, seat location and adjustment to assure driver visibility and access to controls and standard locations and operating procedures for controls and displays.

Because "current passenger car styling trends" conflict with "adequate visibility" needs of drivers, a revised standard that may take effect July 1, 1973, would seek "better rearward fields of view," possibly through such approaches as the periscopic system. The Bureau warns that "implementation of the proposed standard will have a significant impact on vehicle styling practices."

By July 1, 1971, manufacturers may be required to provide consumers with information on the extent of "headlight miss-aim" when the car is weighted (1) by a driver only and (2) at full-rated load. They also would have to provide consumers with statements describing "increased risk under night driving conditions" with various degrees of "miss-aim."

VEHICLES IN USE

In December of this year, the Bureau hopes to issue its long awaited proposals for used vehicle "safety performance requirements and inspection procedures." Covering components relating to braking, fuel and exhaust systems, lighting and communications, restraint systems, suspension and steering, visibility, tires and such "special systems" as hood latches and anti-theft devices, the standards initially would apply to federally-owned vehicles.

On the basis of experience with those vehicles, the Bureau would modify the standards and advance them as "goals and objectives" to the states for incorporation into their motor vehicle inspection programs under Highway Safety Program Standard No. 1. ". . . It is anticipated that all states will have implemented the requirements by November 1974."

As of Jan. 1, 1973, manufacturers may be required to provide consumer information on the relationship of a car's age (in mileage or months) to maintenance and man-hour aspects of repairs to its subsystems and components.

". . . The cost of a test facility for manufacturers (having to develop data under the rule) may be a significant factor," the Bureau points out, but it adds that the rule would "increase competition among manufacturers to develop a more durable and repairable vehicle which will appeal to the consumer's desire for ease of maintenance."

A related rule would "prescribe uniform requirements for facilities, diagnostic analysis, mechanic certification, service manuals and vehicle log books for motor vehicle maintenance." The Bureau foresees it being adopted by state governments and expects that "all states will have implemented these requirements by December 1975."

Motor vehicle and equipment makers would be affected by a final "vehicles in use" standard planned to take effect on Jan. 1, 1975. It would set "finite operational life and storage or shelf life requirements for vehicle systems, subsystems and components" and would contain "requirements for levels of performance during these periods."

The Bureau expects that "the requirements of this standard will have a major impact on the vehicle defects problem The results will be gains not only for the consumer in the life performance of his vehicle, but also for industry in reduced overall costs."

FLORIDA 'BUMPER LAW' LACKS PENALTY PROVISIONS

Analysis of the nation's first "bumper law" reveals that its enforcement is left primarily to the initiative of the consumer.

The State of Florida became the first to adopt a so-called "bumper law." It requires that private passenger cars be sold subject to a warranty that they are capable of withstanding low-speed crashes into a test barrier without damage to the cars.

The no-damage ceiling is placed at five miles per hour on cars manufactured after Jan. 1, 1973, and at 10 miles per hour on cars manufactured after Jan. 1, 1975.

The bill, introduced in April, was adopted by both House and Senate and became law on July 8 when Gov. Claude Kirk failed either to veto or sign it within 15 days of passage.

The law contains no specific enforcement language or penalty provisions. A state insurance industry spokesman, one of the architects of the law, said such language was excluded to avoid opposition from local automobile dealers against whom such penalties would have been applied.

An early draft of the legislation did contain a provision that would have forbidden registration of cars found in violation. It was deleted when the state's motor vehicle department opposed it on grounds the department would need additional funds to test cars before it could determine which models were in violation.

So far, the state has indicated no intention to test automobiles destined for Florida dealers' showrooms.

Advocates of the law point out, however, that it is "self-enforcing" when damage occurs in a crash at a speed below the specified no-damage ceiling. Some options they cite:

- The consumer could bring suit against the automobile manufacturer breach of warranty.
- Insurance companies could bring suits to recover damages they had to pay, above the deductible amounts, for low-speed crash repairs.
- Injunctive actions might be brought under existing law to prevent future sales of models shown to be in violation.
- Perjury actions might also be brought, since the law allows manufacturers to avoid providing warranties to customers by simply certifying under oath to the state department of motor vehicles that their cars are in compliance. However, perjury cases usually turn on "knowingly" making a false statement under oath, so each case would be decided on its individual merits.

POWER WINDOW STANDARD SET BY NHSB

A new safety standard on power-operated window systems (Standard 118), effective Feb. 1, 1971, has been issued by DOT's National Highway Safety Bureau.

The standard requires that power-operated windows become inoperable when the ignition key is removed or in an "off" position. This, according to the Bureau, will "minimize the likelihood of death or injury from . . . accidental operation."

A window shall be movable, the standard says, "by muscular force, unassisted by a power source within the vehicle." It does not clarify whether the "muscular force" should be applied from outside or inside the vehicle.

A 1968 NHSB advisory cautioned the public of safety hazards involved in accidental operation of power windows, particularly by children in parked cars. Car owners were advised to have such windows re-wired so that they could not be operated while the ignition switch was off.

Earlier proposed versions of the standard would have required that power windows have mechanisms that would interrupt, stop, or reverse a closing window when it encounters an obstacle — similar to the way many elevator and bus doors recoil to prevent them from closing on entering or exiting passengers.

Such a device is not required by the final standard for power windows because, according to the Bureau, it involves "engineering and economic problems of a substantial magnitude." NHSB Director Douglas Toms has said that these problems "will be given consideration" for future rulemaking.

NHSB PROPOSES TIRE INDUSTRY KEEP RECORDS

The National Highway Safety Bureau has proposed that tire manufacturers, beginning Nov. 18, 1970, keep records that could be used in notifying purchasers about tire defects.

Under the proposed rule, manufacturers of new and retreaded tires would be required to maintain records of the names and addresses of tire purchasers and the identification number of each tire sold. In turn, distributors and dealers would be required to supply manufacturers with the information.

By an amendment of the National Traffic and Motor Vehicle Safety Act in May, the Secretary of Transportation was directed to establish procedures for tire defect notification.

The proposed rule also specifies a tire identification system, consisting of four groups of coded symbols, to provide a means of identifying the manufacturer, date of manufacture, size of tire and, at the "option of the manufacturer, additional information to further describe the type of significant characteristics of the tire."

Comments on the proposed rule should be submitted to the National Highway Safety Bureau, Attention: Rules Docket, Room 4223, Department of Transportation, 400 Seventh Street, S. W., Washington, D. C., 20591 prior to close of business Sept. 4, 1970.

BOARD URGES SAFETY FEATURE RATING

The National Transportation Safety Board has recommended that the Department of Transportation begin a simple system of rating automobile safety features on the basis of their performance — and pass the information on to the consumer in the form of federally assigned grades.

Such a system, the NTSB maintains, could be incorporated into DOT's present consumer information program to make known to the public advances in the "state of the art." Consumers thus could demand improved safety features before such features were required by federal standards.

The new rating system could also be integrated into cooperative ventures between DOT and the General Services Administration.

The NTSB also has recommended that DOT and GSA, the federal government's chief procurement agency, "undertake the promulgation of advanced safety standards for vehicles purchased by the federal government."

DOT and GSA have had an agreement along these lines since 1967, but it has never produced active ventures.

Under the NTSB proposal, DOT's role in such joint ventures would be to supply technical information which GSA could use in selecting advanced safety devices for government fleets. Based on GSA fleet experience with such devices, DOT could then determine whether it should raise its safety standard requirements for cars sold in the private sector.

The NTSB believes a valuable component of such ventures would be a rating system that gives GSA necessary technical information and also provides labeling of safety features with a government assigned grade (similar to the Agriculture department's labeling of inspected meat products), thus giving both GSA and the private consumer basic information for purchase decisions.

The proposed rating system would establish grades to designate performance levels of safety devices relative to federal safety standards. Systems more advanced than the standards would receive higher ratings and substandard systems would receive lower ratings. Substandard devices would be permitted only on experimental type vehicles.

The NTSB offered its concept of how the grading system might work with brakes: "Assuming that the DOT minimum standard level is Grade C, DOT might identify performance for Grades A, B, and D for each type of performance Increased and widespread use of Grade B brakes, for example, might gradually lead to the discontinued manufacture of Grade C brakes."

The recommendations were made in a special NTSB study entitled "The Roles of General Services Administration and Department of Transportation in Motor Vehicle Safety Standards." It is available for \$3 through the U. S. Department of Commerce, Clearinghouse for Federal Scientific and Technical Information, Springfield, Va., 22151.

The following editorial appeared Aug. 1, 1970, in the Washington Post. It updates the investigation began by the Institute in March.

Milwaukee policeman Thomas Wisniewski was recently driving a 1969 Ford squad car when one of its front wheels fell out of place. The car, out of control, rammed into a parked vehicle located—of all places—in front of the Safety Building in Milwaukee. Officer Wisniewski, a lucky man, broke no bones in this crash, although he was taken to the hospital to be calmed. Last February, another Milwaukee policeman was involved in a crash when a front wheel of his 1969 Ford fell out of place when coming off a freeway exit ramp.

These two crashes would not have national significance if they were not part of a larger and frightening pattern. Since early this year, as reported in a news story on June 10 in this newspaper, similar breaks of the Ford lower control arms on 1969 models have been reported by police departments in Baltimore (six), Suffolk, N.Y. (four), Richmond, Va. (four). A 1968 Ford driven by a Greenbelt, Md., policeman during a chase also had a front wheel break off, injuring the driver and throwing the car out of control.

Ford officials have been aware of these wheel breaks in their products since March when they began "investigating." Because the company has not recalled any police cars, nor notified owners of some 12 million other Ford models from 1965 to '69 and possible some '70s made with the same type of control arms, it is reasonable to conclude that Ford holds to its original position: the drivers are at fault and the control arms "are sound in manufacture and design."

The only hope for definitive and impartial action lies with the National Highway Safety Bureau, the agency intended by Congress to inform and protect

American motorists concerning safety issues. The bureau began investigating the Fords in March. Many expected a quick decision, inasmuch as a private group examined 75 brand-new control arms in only 15 days in May and found them potentially dangerous. But due to lack of staff, money and, in the view of many consumers, a lack of interest, the bureau has not yet disclosed its findings. A spokesman said on Thursday, however, that the public can expect a report on the '69 Fords in one month. A decision on whether a recall is in order will be made at that time.

Despite the some five months needed for word from the government about a situation that is plainly life and death, five months is still better than six months. In fact, the public should even be grateful the Highway Safety Bureau does not have to be taken to the halls of justice to act. Last month, a federal court faulted the bureau for failing to pursue its 1969 investigation into a large number of General Motors ¾-ton truck wheels. The court, more concerned about highway safety than the Highway Safety Bureau, ordered the government to reopen the investigation and report back on Sept. 16, 1970.

Meanwhile, anyone with doubts about a proper course of action can take a hint from a recent story in the Milwaukee Journal. When a superior of Officer Wisniewski offered two Ford engineers a ride at 70 mph in a car with a cracked lower control arm, the boys from Ford had a better idea: thanks, but no. As for the superior, the Journal quoted him on his fleet of Fords: "I don't sleep nights worrying about those wheels."

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WATERGATE OFFICE BUILDING

2600 VIRGINIA AVENUE, N.W. • WASHINGTON, D. C. 20037

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