

# Implementing the 1966 Highway Safety Acts

MATTHEW C. SIELSKI

Director

Office of Driving Environment Programs  
Office of Highway Safety Programs Service  
National Highway Safety Agency  
Washington, D. C.

## INTRODUCTION

The National Highway Safety Agency and the Office of Highway Safety Programs Service function under the new Department of Transportation. Presently the Office of Highway Safety Programs Service is directing its attention to the development of standards in the field of highway safety. Some of these are of concern to highway engineers and shall be discussed in detail in this paper.

The interest of the federal government in highway safety has been greatly intensified following the continuous rise in automobile accidents. In 1962, for the first time in our history, we exceeded 40,000 fatalities and have continued to climb to a record high of 52,500 in 1966. Last year, the National Safety Council predicted that in the five-year period between 1966 to 1970, 283,000 Americans will have died on streets and highways and that by 1970 the annual death toll will rise to 60,000.

Of further concern is the prediction for sharp increases of vehicle usage. It is expected that the total number of vehicles in the United States will rise from 95 million in 1966 to 108 million in 1970.

President Johnson stated that next to Vietnam, traffic accidents are the country's most serious problem.

## CONGRESS PASSES SAFETY ACTS

In 1966 the United States Congress passed the Highway Safety Act and the National Traffic and Motor Vehicle Safety Act to offer assistance to states in a cooperative effort to seek a solution to this accident problem. They provide for a systematic consideration of the ways in which safety activities, both public and private, at every level of

government may be strengthened. They herald a new era for highway safety in this country. The standards relating to vehicle design are administered in the National Traffic and Motor Vehicle Safety Act. The standards relating to highway safety programs are contained in the Highway Safety Act, about which this paper pertains. Before discussing the standards, there are several observations to be considered.

## MAKING THE SAFETY ACTS WORK

### *Federal-State Cooperation*

First, it should be perfectly understood that if this program is to succeed it must be a partnership between the states and the federal government. The act recognizes the responsibility of the federal government to give leadership and coordination to a national safety effort. The act also recognizes the responsibilities of states and their subdivisions as well as the contributions by industry, universities and private associations. The point emphasized is that this is a national program bringing together the many facets of all levels of government and of the private economy in a cooperative, comprehensive, balanced attack against one of the gravest threats to citizens.

### *Ample Latitude for Local Initiative*

The second point relates to the need for diversification between states in meeting the requirements of the standards. The Highway Safety Act calls for "performance" standards which therefore leaves ample latitude for local initiative and adaptability for a creative and effective approach. Each state can tailor its program to its own make-up and character, respecting however, the basic intent of each respective performance standard.

For example, the federal government will not establish a uniform national speed limit. The topographical characteristics of our various regions dictates speeds that are based upon prevailing existing conditions and sound traffic engineering judgment. The law does require that performance standards be established, *through state regulations*, which will promote safe driving under the conditions confronting the driver in each state.

### *Promotion of Fresh Approaches*

The third point is perhaps the most important and challenging. One of the main purposes of the Highway Safety Act is to promote the development of new counter measures against accidents and their end results. If progress is to be made towards a sensible accident pre-

vention program in today's transportation environment, it requires a new vigorous fresh approach, as well as a continuation of a sound balanced safety program based on national guidelines but tailored to fit local conditions.

As a means for encouraging states to initiate new action, federal matching funds have been made available. This obviously is not intended to cover all the costs of the expanded effort. We appreciate the financial burdens the states are being called upon to bear in order to meet the cost of the safety programs which are necessary if accident reduction is to be brought about in their various governmental jurisdictions.

### *Summary*

Re-emphasizing the three points (1) this must be a partnership effort between the states and the federal government (2) there is need for each state to expand our minimum standards to provide for local adaptability and initiative, and (3) there is need for accentuation on programs which will provide fresh approaches.

## HIGHWAY SAFETY ACT STANDARDS

The Highway Safety Act as it relates to standards for state and local programs is now considered.

The law stipulates that:

"Each state shall have a highway safety program approved by the Secretary, designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom. Such programs shall be in accordance with uniform standards promulgated by the Secretary. Such uniform standards shall be expressed in performance criteria."

The law further specifies, concerning the state programs, that:

"Such uniform standards shall be promulgated by the Secretary as to improve driver performance (including, but not limited to, driver education, driver testing to determine proficiency to operate motor vehicles, driver examinations—both physical and mental, and driver licensing) and to improve pedestrian performance. In addition such uniform standards shall include, but not be limited to, provisions for an effective record system of accidents (including injuries and deaths resulting therefrom), accident investigations to determine the probable causes of accidents, injuries and deaths; vehicle registration, operation, and inspection; highway design and maintenance (including lighting, markings, and surface treatment); traffic con-

trol; vehicle codes and laws; surveillance of traffic for detection and correction of high or potentially high accident locations; and emergency services.”

On February 16, 1967, the National Highway Safety Agency announced an initial set of draft standards to representatives of governors of 50 states who were invited to a meeting in Washington. The law provides for a 50-50 matching fund for the states and local communities to expand and improve their highway safety programs. It requires that at least 40 percent of such funds go to local communities, and it poses the threat of the loss of 10 percent of federal-aid highway construction funds for those states which fail to comply.

### THREE OF THE STANDARDS

Three of the initial thirteen standards are of direct interest and are explained here.

#### *Highway Design, Construction, and Maintenance*

This standard requires that existing streets and highways be maintained in a condition that promotes safety. It requires that modernization of existing roads, and new highways as well, meet approved safety standards and that precautions be taken to protect passing motorists, as well as highway workers, from accident involvement at highway construction sites.

Following are some specific features of this standard.

1. Design standards should be in accordance with AASHO's policy of geometric design of rural and urban roads and streets.

2. In the design of subdivisions and residential streets, travel should be minimized for local use only.

3. Give much consideration to the use of street lighting at various key locations, particularly on sections of roads and streets where the ratio of night-to-day motor vehicles is more than 1.5 times the average for similar locations or sections on the same system of roads and streets.

4. A skid prevention program not only for new pavement design but including resurfacing projects.

5. A planned program for construction site safety, providing for proper traffic control, devices, detours and the removal of temporary pavement markings and signs when they no longer apply.

6. A planned program of routine and preventive maintenance of the roadway to provide safe and efficient movement of traffic. This

standard also calls for a continuous program to detect and correct deficiencies in roadway locations and devices *before* they become hazardous.

7. A planned program wherein the highway design and construction features increase the crash protection and survivability of accidents. It includes such features as yield or break away principles on structures, obstacle-free roadsides, impact yielding barriers, and properly designed guard rails and bridge railings.

8. A planned program of providing highway features that facilitate post-crash emergency and other measures that will increase the chances of full recovery by injured persons. Included are signs directing motorists to hospitals, and training of maintenance personnel for summoning aid to offer protection to motorists at the site.

#### *Identification and Surveillance of Accident Locations*

This standard is an extension of the "spot improvement" program conducted by the Bureau of Public Roads and the state highway departments. In addition to the adoption of a program for correcting high accident locations, it requires the provision for a system of road numbers or mile post designations. Further, this standard calls for the designation of an inter-agency team of engineers, enforcement personnel and other specialists to maintain continued surveillance of roads and streets for detection and correction of serious accident producing conditions.

#### *Traffic Control Devices*

The purpose of this standard is to assure the full and proper application of modern traffic engineering practice and uniform standards for traffic control devices in reducing the likelihood and severity of traffic accidents. It provides for the following features:

1. An up-to-date detailed inventory of traffic control devices.
2. A planned program to update all traffic control devices to uniformity.
3. All new traffic control devices must meet minimum standards.
4. A maintenance program for all traffic control devices.
5. A planned program for the establishment of maximum speed limits and speed zones based on engineering and traffic investigations.

These three standards are examples of the approach we are taking to assist states with their safety programs. In conclusion, here is the basic approach taken in respect to the total national problem of street and highway accidents.

## BASIC APPROACH TO ACCIDENT PROBLEMS

Dr. William Haddon, Jr., is Administrator of the National Highway Safety Agency, under which we function, and the National Traffic Safety Agency, which concerns itself with vehicle standards. Dr. Haddon has frequently stressed the need for a simple and logical approach to the accident problem by concerning ourselves with *everything* that contributes to them.

### *Pre-crash Phase*

Basically, we must provide for activities that address themselves to three phases: (1) pre-crash (2) crash (3) post-crash. In the pre-crash phase we are concerned with such factors as road-free obstacles, proper highway maintenance, uniform traffic control devices, and driver education, to name but a few.

### *Crash Phase*

In the second, or crash phase, are such factors as energy-absorbing material such as proper crash design of roadsides, with barriers, guard rails, bridge railings designed to reduce the severity of injury to occupants of vehicles. Included in the crash phase is the design of vehicles and the requirement that safety helmets be worn by motorcyclists.

### *Post-Crash Phase*

In the third, or post-crash phase, is the problem of responding quickly to persons involved in serious accidents. The transportation of the injured, proper medical attention, as well as the removal of debris to restore traffic safety and efficiency are matters that must be given more attention.

## CONCLUSION

Evaluate activities in relation to each of these three phases of highway safety, and work systematically to minimize the end results of death and injury. This is the process by which much of our planning will be applied or the programs of the new National Highway Safety Agency.

ADDENDUM  
STANDARDS FOR STATE HIGHWAY  
SAFETY PROGRAMS ARE ANNOUNCED\*  
[SUMMARY]

The Department of Commerce's National Highway Safety Agency today announced an initial set of draft standards for State and local communities' highway safety programs.

The draft standards were submitted for comment and suggestions to representatives of the Governors of the 50 States who were meeting in Washington at the invitation of the safety Agency to discuss implementation of the Highway Safety Act of 1966.

Under Secretary of Commerce for Transportation Lowell K. Bridwell told the State officials that the standards "are designed to help you and your local communities develop your own highway safety programs with the Federal Government providing financial aid, coordination and leadership in the overall effort."

Mr. Bridwell said the States were being asked to study the draft standards and return their comments and suggestions to the National Highway Safety Agency as soon as possible.

"This is another important part of President Johnson's comprehensive traffic safety program which saw the first set of safety performance standards for motor vehicles established last month," Mr. Bridwell said. "The same sense of urgency attaches to this phase of the effort," he added, "because the toll of death and injury on our highways continues to rise each day."

Mr. Bridwell said the Bureau of Public Roads has increased its emphasis on a spot improvement program to reduce high accident locations. It recently has established more exact methods for identifying and correcting these high accident sites.

"It is also imperative," Mr. Bridwell added, "that we establish the State standards as soon as possible for the guidance of State officials and legislators who will have the responsibility of implementing the State programs."

The National Highway Safety Act provides for 50-50 matching funds for the States and local communities to expand and improve their highway safety programs. It requires that at least 40 percent of such funds go to local communities, and it poses the threat of the loss of 10 percent of Federal-aid highway construction funds for those States which fail to comply.

---

\* United States Department of Commerce, Office of the Secretary, Washington, D.C., February 16, 1967.

Dr. William Haddon, Jr., Administrator of the new National Highway Safety Agency, said "the State programs must be in full operation by December 31, 1968, but it is extremely desirable that the States proceed immediately to develop their programs for implementation as quickly as possible."

Dr. Haddon said the issuance of State standards will be a continuing process as the national drive to reduce death and injury on the highways develops. He noted that many of the standards require the kind of data keeping which will aid the Agency in its search for the causes of accidents and injuries and the means of preventing them.

"This will also help us in the future," he said, "to direct the greatest attention to those programs with the greatest payoff in terms of lives saved and injuries reduced or avoided." He said officials of the safety Agency will meet Tuesday, February 21, with representatives of major national highway safety organizations to seek their review and comment on this first set of State standards.

The draft standards unveiled today cover periodic motor vehicle inspections; driver licensing, including reexamination of eyesight; driver education programs; licensing of driver schools; protective gear for motorcyclists; uniform traffic control; emergency medical care; and maintenance of complete and usable records relating to drivers, vehicles and accidents.

They also call for the State Health Departments to take the leadership in the problem of emergency medical care of persons injured in traffic accidents. Establishment of a statewide emergency medical care program also is required.

The standards also provide programs for correcting high accident locations and call for examinations for alcohol content of persons killed in traffic mishaps. Under the alcohol standard, the operator of a motor vehicle would automatically give his implied consent to tests for alcohol or face revocation of his license.

A summary of the draft standards follows:

**DRIVER LICENSING**—Each State must have a driver license program covering minimum age limits, physical and eyesight examinations, knowledge of traffic laws, ability to comprehend traffic signs, and ability to operate the kind of vehicle for which licensed. Periodic reexamination at least once every four years, with authority to reexamine more frequently than that for those under 25 years of age or over 65.

**MOTOR VEHICLE REGISTRATION**—Requires a central registration system to provide means of identifying the owner, type,



weight, size and carrying capacity of every vehicle licensed to operate in a State; also that this information be made available for traffic safety studies, research, enforcement, and other technical uses.

## INVESTIGATION AND SURVEILLANCE OF ACCIDENT

**LOCATIONS**—Each State, in cooperation with county and other local governments, must have a program for identifying and improving high accident locations and maintaining surveillance of locales with high accident rates.

**TRAFFIC RECORDS**—Requires a central system, compatible with local systems, to include all traffic data for the entire State. The system shall be capable of providing summaries, tabulations, and special analyses and shall include driver, vehicle, accident, and road records so designed that it is possible to relate all relevant records.

**TRAFFIC COURTS**—Requires that Traffic Court records and reports be forwarded to State highway safety records systems, and that persons charged with exceptionally hazardous traffic violations must appear in court. Suggests uniform accounting system for traffic fines and uniform court procedures for traffic cases.

**PERIODIC MOTOR VEHICLE INSPECTION**—Requires inspection at least annually of every motor vehicle, motorcycle, trailer, and semi-trailer (except mobile homes) registered in the State. All vehicles must be inspected prior to registration for the first time in the State. Vehicles involved in fatal crashes also must be inspected before returning to use. Inspection also required whenever title is transferred.

**MOTORCYCLE SAFETY**—Operators must be licensed in accordance with standards set for driver licensing and cycles must be included in the periodic inspection program for motor vehicles. Operators must wear protective headgear. Required safety equipment must be on the vehicle before registration.

**ALCOHOL IN RELATION TO HIGHWAY SAFETY** — States shall make it unlawful to drive when person's blood alcohol concentration equals or exceeds one-tenth of one percent; must require that any person driving on public highways gives his implied consent to submitting to chemical test for alcohol content in his blood, and refusal to submit to such test will result in revocation of driver's license. Calls for program for checking alcohol blood content of motorists and adult pedestrians who are killed in traffic accidents.

**CODES AND LAWS**—Each State shall develop and implement a program to achieve uniformity of traffic codes and laws throughout

the State, including Rules of the Road for all public streets and highways. Such Rules of the Road must be consistent with those of other States.

**TRAFFIC CONTROL DEVICES**—Concerns State implementation of control device improvements that will bring about national uniformity. Includes signs, signals, markings, and a variety of electronic controls that convey regulatory or convenience information to motorists.

**EMERGENCY MEDICAL SERVICES**—Calls for State Health Departments to employ full-time person to work on emergency care of accident victims. Also requires setting up of statewide emergency medical services program.

**HIGHWAY DESIGN, CONSTRUCTION, AND MAINTENANCE**—Requires that existing street and highways be maintained in a condition that promotes safety. Requires that modernization of existing roads and new highways as well meet approved safety standards. Precautions must be taken to protect passing motorists as well as highway workers from accident involvement at highway construction sites.

**DRIVER EDUCATION**—Requires comprehensive driver training programs, meeting standards set by the State, be made available to all high school students. Requires training and certification of school instructors, regulation of other driver training schools, and the licensing and certification of their instructors. Calls for research, development, and procurement of practice driving facilities such as simulators and other tools for both school and adult training programs.