REPORT NO. DOT-TSC-OST-73-45

REVIEW OF SAFETY RELATED STATUTORY AUTHORITY ADMINISTERED BY THE DEPARTMENT OF TRANSPORTATION

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OCTOBER 1973

INTERIM REPORT

Prepared for
DEPARTMENT OF TRANSPORTATION
OFFICE OF THE SECRETARY
OFFICE OF R&D POLICY
Washington DC 20590

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Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DOT-TSC-OST-73-45		

4. Title and Subtitle	5. Report Date
REVIEW OF SAFETY RELATED STATUTORY AUTHORITY ADMINISTERED BY THE DEPARTMENT OF TRANSPORTATION	October 1973
	6. Performing Organization Code
7. Author's)	8. Performing Organization Report No.
David S. Glater and Nancy Accola	DOT-TSC-OST-73-45
9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Department of Transportation Transportation Systems Center Kendall Square Cambridge MA 02142	OS447/R4513
	11. Contract or Grant No.
12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Department of Transportation Office of the Secretary Office of R&D Policy Washington DC 20590	Interim Report July 1973-Sept. 1973
	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

This interim report is an overview of the legislative authority giving the Department of Transportation responsibility for transportation safety. These responsibilities are summarized by mode and modal administration with special emphasis on the R&D role. Legislation dealing with environmental protection which has only incidental impacts on safety has been omitted, as has legislation administered by the Secretary of Transportation for the protection of common carrier employees. Appropriate legislative and regulatory authorities are cited which identify the authorization to perform the R&D in support of the safety responsibilities.

17. Key Words	18. Distribution Statement
· Transportation Safety · Safety Legislation · Safety R&D	DOCUMENT IS AVAILABLE TO THE PUBLIC THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, SPRINGFIELD, VIRGINIA 22151.

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	40	

PREFACE

This interim report was prepared under PPA OS 447, "DOT Transportation Safety R&D Program Investigation." This effort is sponsored by the Office of the Secretary of Transportation, Office of R&D Policy (TST-13). The purpose of this project is to develop a background of safety-related R&D data, to conduct studies of critical safety issues, and to recommend a balanced program which provides the highest possible return on the safety R&D investment. The work reported on is the result of the first task in the PPA and defines the DOT legislative mandate giving responsibility for transportation safety.

This report was prepared by members of the Research Division, Office of Systems Research and Analysis. The study was principally conducted by Ms. Nancy Accola under the supervision and guidance of Mr. David S. Glater.

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1. INTRODUCTION

This paper summarizes transportation safety legislation for which the Department of Transportation is responsible,* and identifies the Department's legislative authority to perform research and development in support of its safety missions.

The Department of Transportation Act,[1] passed in 1966, directs the Secretary of Transportation to consider the need for safety when carrying out all of the functions with which he is charged.[2] Safety is therefore a necessary consideration in carrying out the Secretary's general duty to "promote and undertake development, collection, and dissemination of technological, statistical, economic, and other information relevant to domestic and international transportation," and to "promote and undertake research and development relating to transportation."[3] In order to carry out such research as the Secretary deems necessary, he "is authorized to enter into contracts with educational institutions, public or private agencies or organizations, or persons for the conduct of scientific or technological research...."[4]

In addition to the general mandate of the DOT Act to consider safety in carrying out his functions, various laws charge the Secretary of Transportation with safety responsibilities in specific areas of transportation. This paper will review these laws mode by mode, and identify authority to perform R&D in support of these safety responsibilities.

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*Legislation dealing with environmental protection which has only incidental impacts on safety (e.g., the Noise Control Act of 1972, P.L. 92-574, or the Water and Environmental Quality Improvement Act of 1970, P.L. 91-224, or the Oil Pollution Act of 1961, as amended, P.L. 87-167) has been omitted, as has legislation administered by the Secretary of Transportation for the protection of common carrier employees (e.g., the Hours of Service Acts, 45 U.S.C. §§ 61-66, 49 U.S.C. § 304 (a) (1), (a) (2), (a) (3), (a) (3a), (a) (5)).

2. MARINE SAFETY

The Act establishing the Department of Transportation transferred to the Department the United States Coast Guard, which was formerly a part of the Treasury Department.[5] In general, the Coast Guard is responsible for "the promotion of safety on and over the high seas and waters subject to the jurisdiction of the United States."[6,*] These duties include: administering laws and promulgating and enforcing regulations to promote the safety of life and property; establishing, maintaining and operating aids to navigation, icebreaking facilities, and rescue facilities; and conducting oceanographic research.[7] More specifically, the Coast Guard is charged with the following safety functions:

1. Establishing aids to navigation for the purpose of preventing disasters, collisions, and wrecks of vessels and aircraft.[8]
2. Marking any obstructions to navigation.[9]
3. Coloring and numbering buoys.[10]
4. Rescuing and aiding persons and protecting and saving property.[11]
5. Operating "floating ocean stations for the purpose of providing search and rescue, communication, and air navigation facilities, and meterological services."[12]
6. Promulgating and enforcing regulations regarding load water lines (that is, the maximum depth to which vessels may be safely loaded).[13]
7. Promulgating and enforcing regulations covering the carriage of explosives or other dangerous articles on vessels.[14]

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*The marine safety legislative authority described in this section was initially transferred to the Secretary of Transportation by the DOT Act. The Secretary has delegated his responsibilities in these matters to the Commandant of the Coast Guard. 49 C.F.R. §§ 1.4(b), 1.46.

8. Promulgating regulations for the investigation of marine casualties, carrying out such investigations, and classifying such casualties according to "the extent of injuries to persons, the extent of property damage, [and] the dangers actual or potential which such marine casualties or accidents may create to the safety of navigation of commerce."[15]

9. Establishing regulations for and inspecting steam vessels.[16]

10. Promulgating and enforcing regulations for the transportation of passengers and goods by steam vessels.[17,*]

The Coast Guard is also responsible for promulgating safety regulations for harbors, rivers, and inland waters. Among its duties in this area are:

1. Regulation of the length of towlines.[18]

2. Regulation of the manner in which vessels pass each other.[19]

3. Regulation of navigation under bridges.[20]

4. Establishment and enforcement of regulations prescribing anchorage grounds for safe navigation.[21]

5. Regulation of drawbridge operations.[22]

6. Regulation of the construction, operation and alteration of bridges over navigable waters.[23]

The Coast Guard is charged with enforcement of legislation which has been enacted pursuant to the International Convention for Safety of Life at Sea.[24] These statutes regulate the use of lights, sound signals, steering and sailing, and the conduct of vessels both in sight of one another and in restricted visibility.[25]

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*Regulations include provisions for lifesaving and fire fighting equipment, muster lists, tackle and hawsers, and bilge systems. See 46 U.S.C. § 481.

The Department also has safety responsibilities in the area of recreational boating safety. The Federal Boat Safety Act of 1971[26] calls upon the Secretary to issue regulations establishing minimum safety performance standards for boats and boating equipment[27] used primarily for noncommercial purposes.[28] Administration of this Act has been delegated to the Coast Guard by the Secretary.[29] The Act provides for a numbering system for all motorized vessels not already required to have valid marine documents as vessels of the United States.[30] Another provision encourages States to develop boating safety programs, and offers grants to States proposing acceptable programs.[31] Further, the Act directs the Coast Guard to establish a uniform casualty reporting system for all vessels subject to the Act.[32]

Another recently enacted marine safety act for which the Coast Guard is responsible[33] is the Ports and Waterways Safety Act of 1972.[34] There are two titles to the Act: Ports and Waterways Safety and Environmental Quality (Title I), and Vessels Carrying Certain Cargoes in Bulk (Title II). The general purposes of Title I are: to promote marine traffic safety, to prevent damage or destruction of any vessel, bridge or other structure, or shore areas, and to protect the navigable waters from environmental harm.[35] To accomplish these purposes, the Coast Guard is authorized: to establish and maintain vessel traffic control services in waters subject to congested vessel traffic, to establish procedures for the handling, loading and storage of dangerous cargoes, and to prescribe minimum equipment safety requirements for vessels, bridges, or other structures on or adjacent to U.S. waters.[36] Title II of the Act authorizes the Coast Guard to establish "comprehensive minimum standards of vessel design, construction, alteration, repair, maintenance, and operation to prevent or mitigate the hazards" presented by dangerous on-board liquid bulk cargoes.[37]

In all of the areas detailed above, the Secretary[38] and the Commandant of the Coast Guard are given the R&D authority to:

> "conduct experiments, investigate, or cause to be investigated, plans, devices, and inventions relating to

the performance of any Coast Guard function and co-operate and coordinate such activities with other Government agencies and with private agencies;"[39]

"conduct any investigations or studies that may be of assistance to the Coast Guard in the performance of any of its powers, duties or functions;"[40] and

"design, or cause to be designed...patrol boats and other small craft."[41]

Oceanographic research is also authorized although it is not specifically directed at safety problems.[42]

3. AVIATION SAFETY

The Department of Transportation Act transferred the functions of the Federal Aviation Agency to the Secretary. The DOT Act went on, however, to require the Secretary to delegate his aviation safety functions to the Federal Aviation Administrator.[43] The delegation includes safety responsibilities under the Federal Aviation Act of 1958,[44] and the Airport and Airway Development Act of 1970.[45] The Federal Aviation Act of 1958, as amended, directs the Administrator to establish minimum standards to promote aircraft safety. Standards are applicable: to the design, construction, and performance of aircraft and parts; to the inspection, overhaul, and service of equipment, to the composition of fuel, and to emergency locator beacons.[46] The Federal Aviation Administrator is also authorized to issue: airman certificates to persons qualified to perform in specified capacities in connection with aircraft;[47] aircraft certificates to manfacturers of aircraft, aircraft engines, and propellers which have been tested and investigated for compliance with minimum safety standards;[48] production certificates to equipment which duplicates pieces of equipment for which an aircraft certificate has been issued;[49] air carrier operating certificates to persons adequately equipped and able to operate as air carriers safely and in accordance with regulations;[50] and airport operating certificates to airports which serve air carriers and which have adequate equipment, including emergency and rescue equipment, to conduct safe operations according to minimum safety standards and regulations.[51] Operation of aircraft without all required certificates or otherwise not in compliance with applicable regulations is unlawful.[52]

The Administrator of the Federal Aviation Administration is further charged with developing plans for and formulating policy with respect to the use of navigable airspace "in order to insure the safety of aircraft and the efficient utilization of such airspace."[53] The Administrator is to establish, improve, and operate air-navigation facilities, to arrange for the publication of

aeronautical maps and charts to aid in safe air navigation, and to provide necessary personnel "for the regulation and protection of air traffic."[54] The Administrator is further authorized to prescribe air traffic regulations "for the navigation, protection, and identification of aircraft, for the protection of persons and property on the ground, and for efficient utilization of the navigable airspace, including rules as to safe altitudes of flight and rules for the prevention of collisions between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects."[55]

Under the recently enacted Airport and Airway Development Act of 1970,[56] the Administrator was directed to prepare and publish a national airport system plan.[57] In order to implement the plan, the Administrator is authorized to make grants for airport development[58] which may include safety-related improvements. "Airport development" is defined in the Act as:

> any work involved in constructing, improving, or repairing a public airport or portion thereof, including the removal, lowering, relocation, and marking and lighting of airport hazards, and including navigation aids used by aircraft landing at, or taking off from, a public airport, and including safety equipment required by rule or regulation for certification of the airport, [and] any acquisition of land or any interest therein, or of any easement through or other interest in airspace, including land for future airport development, which is necessary to permit any such work or to remove or mitigate or prevent or limit the establishment of, airport hazards.[59]

Proposed development must come within the current national airport system plan and must comply with standards established by the Administrator including standards for "site location, airport layout, grading, drainage, seeding, paving, lighting, and safety of approaches."[60]

In order to promote safety in air traffic, the Administrator is directed to promulgate regulations by which anyone altering or constructing any structure affecting air traffic must give adequate public notice.[61]

The Administrator is authorized to establish regulations whereby an air carrier may refuse transportation to a passenger or to property when such transportation threatens flight safety.[62]

With regard to aviation safety research and development, the Federal Aviation Administrator is authorized to "develop, modify, test, and evaluate systems, procedures, facilities, and devices, as well as define the performance characteristics thereof, to meet the needs for safe and efficient navigation and traffic control...."[63] Specifically, he may "undertake or supervise such developmental work and service testing as tends to the creation of improved aircraft, aircraft engines, propellers, and appliances."[64] And he may obtain the assistance of NASA and other federal research and technical agencies on matters relating to "aircraft fuel and oil and to the design, materials, workmanship, construction, performance, maintenance, and operation of aircraft engines, propellers, appliances, and air navigation facilities."[65]

4. COMMON CARRIER SAFETY

The Secretary is responsible for reviewing the safety records of pipeline, railroad and motor carriers seeking operating authority from the Interstate Commerce Commission.[66] He has delegated this responsibility to the Administrators of the appropriate operating administrations within the Department (that is, the Federal Rail Administrator reviews the records of applicants for rail certificates,[67] the Federal Highway Administrator reviews the records of applicants for motor carrier certificates,[68] and so on). Each Administrator must: investigate the safety records of applicants seeking operating authority from the ICC, make such additional safety investigations as requested by the ICC, and intervene in proceedings if a carrier applicant's fitness is challenged.[69]

Portions of the Interstate Commerce Act of 1887, as amended, relating to motor carrier safety were transferred by the DOT Act to the Secretary at the establishment of the Department.[70] The Secretary has delegated this authority to the Federal Highway Administrator.[71] With respect to common carriers by motor vehicle,[72] contract carriers by motor vehicle,[73] private carriers of property by motor vehicle,[74] and carriers of migrant workers by motor vehicle,[75] the Administrator is to establish "reasonable requirements" for the "safety of operation and equipment."[76] In order to carry out these safety provisions, the Administrator may utilize "any of the several research agencies of the Federal government having special knowledge of any matter, to conduct such scientific and technical researches, investigations, and tests as may be necessary."[77]

5. HIGHWAY SAFETY

5.1 MOTOR VEHICLE AND TRAFFIC SAFETY

Upon the establishment of the Department of Transportation, the Secretary was vested with the authority and duties contained in two acts relating to motor vehicle safety:[78] the National Traffic and Motor Vehicle Safety Act of 1966,[79] and the Highway Safety Act of 1966.[80] The Secretary has delegated responsibility for the National Traffic and Motor Vehicle Safety Act and for those portions of the Highway Safety Act dealing with motor vehicle and traffic safety to the Administrator of the National Highway Traffic Safety Administration.[81,*]

Under the National Traffic and Motor Vehicle Safety Act of 1966, the NHTC Administrator is authorized to establish practicable motor vehicle and equipment safety performance standards.[82] (For purposes of this Act the definition of motor vehicle includes buses, trucks, and motorcycles as well as passenger cars.[83]) Inconsistent State standards are pre-empted under the Act.[84] All vehicles and equipment manufactured after a standard takes effect must comply with it. The National Traffic and Motor Vehicle Safety Act provides for elaborate enforcement procedures including: injunctions and civil and criminal penalties against manufacturers for noncompliance, a requirement that manufacturers repurchase nonconforming vehicles or equipment from dealers, and, if nonconforming vehicles or equipment has already been sold to consumers, a requirement that the manufacturer must notify such purchasers of the defects.[85] The Administrator is authorized to conduct such inspections and investigations as he deems necessary to insure compliance.[86]

The National Traffic and Motor Vehicle Safety Act also deals with tire safety. It requires that tires be labeled with relevant safety information, including the composition of the tire, the

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*Those portions of the Highway Safety Act of 1966 dealing with highway design were delegated to the Administrator of the Federal Highway Administration.

number of plies, the maximum permissible load for the tire, and the name of the manufacturer or retreader.[87] The Administrator must set vehicle safety standards relating to the load capacity of original equipment tires, and must establish a uniform tire quality grading system as a motor vehicle standard.[88]

Another provision of the National Traffic and Motor Vehicle Safety Act requires the Administrator to establish and maintain a register identifying persons who have been denied a motor vehicle operator's license, or who have had such license either terminated or temporarily withdrawn (for over six months).[89]

The NHTS Administrator is also responsible for administering the Highway Safety Act of 1966,[90] as amended by the recently enacted Highway Safety Act of 1973.[91,*] The 1966 Highway Safety Act authorizes grants-in-aid to States which develop acceptable highway safety programs.[92] The State programs must be in accordance with uniform safety performance standards promulgated by the Administrator.[93] (With the enactment of the 1973 Highway Act, P.L. 93-87, § 229, the Administrator may not issue new standards or modify existing standards unless specifically authorized by Congress.[94]) Such standards are to cover, but are not limited to: driver education; driver testing to determine proficiency to operate motor vehicles; physical and mental examinations of drivers; driver licensing; provisions for an effective system of accident investigation and recording; vehicle registration, operation and inspection; traffic controls; vehicle codes and laws; emergency services; and, recently, bicycle safety.[95] State highway safety programs must provide for comprehensive driver training programs which must now also include training that will assure greater safety for bicyclists.[96] State programs must also require wheelchair access ramps across all crosswalk curbs installed or replaced after July 1, 1976.[97] To further encourage States to promote highway

*Responsibility for carrying out the Highway Safety Act of 1973 has not yet been officially delegated to the National Highway Traffic Safety Administrator, but it seems reasonable to expect it will be so delegated.

safety, the 1973 Highway Safety Act sets up two incentive grant programs. Incentive grants may be made to States adopting laws requiring use of seatbelts in accordance with the Administrator's published criteria. And, incentive grants may be made to States making significant progress in reducing traffic fatalities.[98]

The Motor Vehicle Information and Cost Savings Act of 1972[99] contains additional motor vehicle safety-related provisions.* Although the major purpose of this Act is to reduce the economic loss to consumers from motor vehicle damage, the Act also seeks to promote the design and production of safe, as well as damage-resistant motor vehicles. Title I of the Act requires promulgation of bumper standards for motor vehicle bumpers.[100] The purpose of these "property loss reduction" bumper standards is (1) to eliminate or reduce physical damage to front or rear ends of passenger motor vehicles resulting from low-speed collisions or towing, and/or (2) to reduce the costs of repairing such damage.[101] Health and safety factors are to be taken into account in the design of the standards and, specifically, bumper standards must not conflict with safety standards promulgated under the National Traffic and Motor Vehicle Safety Act of 1966 (discussed above).[102] Title II of the Act directs the Administrator to conduct an automobile consumer information study and to make the results of the study available to the public.[103] One of the factors to be studied is the relative safety of motor vehicles. It is hoped that making such information available to consumers will encourage motor vehicle manufacturers to compete to produce safer, more durable vehicles.[104] Title III calls for States to establish diagnostic inspection demonstration projects.[105] States may apply for grants to operate such projects which must provide for both periodic safety inspections pursuant to criteria set by the NHTS Administrator, and emission inspections based on criteria set by him in consultation with the Administrator of the Environmental Protection Agency.[106]

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*Responsibility for administering this Act has also been delegated to the National Highway Traffic Safety Administrator. 37 F.R. 26010 (1972).

The recently enacted Highway Safety Act of 1973, mentioned above, directs the Secretary to undertake the following safety-related studies:

1. Investigate the use of mass media, especially the licensed broadcast media, to inform the public of accident reduction techniques.[107] The Secretary is specifically directed to develop a series of short highway safety television programs.[108]

2. Investigate methods for encouraging greater citizen participation in highway safety, with emphasis on law enforcement and accident detection and reporting.[109]

3. Review the feasibility of establishing a "National Center for Statistical Analysis of Highway Operations" to handle accident data and standardize accident reporting.[110]

4. Investigate pedestrian and bicycle safety including State and local regulation and enforcement, the relationship between alcohol and pedestrian and bicycle safety, and an analysis of bicycle and pedestrian safety funding allocations.[111]

5. In cooperation with Governors, and State and local highway officials, review States' highway safety needs and the costs of meeting them.[112]

Ongoing research, development, and demonstration projects are also provided for in the motor vehicle and traffic safety legislation described above. In order to develop safer motor vehicles and equipment, the NHTS Administrator is directed to conduct research, testing, development, and training, including the collection of data and the procurement of experimental vehicles and equipment. He may make grants to qualified agencies for the conduct of such research.[113] Research necessary to develop bumper standards that will provide for damage-resistant safe passenger motor vehicles is also authorized.[114] The Administrator is authorized

to use general highway research funds for safety research,[115] which may include research on highway safety systems, vehicle and driver characteristics, accident investigations, communications, emergency medical care, and transportation of the injured.[116] Research funds may also be used for grants for training of highway safety personnel, for research fellowships, and for traffic and motor vehicle safety demonstration projects.[117] More specifically, research has recently been authorized on: the effect of drug use on highway safety;[118] the characteristics of driver performance;[119] and the effectiveness of driver training programs.[120] The Secretary is also authorized to set up demonstration projects for the fair and efficient administrative adjudication of traffic infractions, using appropriate punishment and rehabilitation measures for offenders.[120]

5.2 GUIDEWAY SAFETY

In addition to the motor vehicle and traffic safety provisions mentioned above, the Highway Safety Act of 1966, as amended by the Highway Safety Act of 1973, contains provisions dealing with safety of the guideway portion of the highway system. The Secretary has delegated those portions of the 1966 Act dealing with "highway safety programs, research, and development relating to highway design, construction, and maintenance, traffic control devices, identification and surveillance of accident locations, and highway-related aspects of pedestrian safety," to the Federal Highway Administrator.[122] States must provide for the elimination of highway safety hazards (as well as motor vehicle and traffic hazards) in their State highway safety programs. And the Federal Highway Administrator is directed to promulgate standards for "highway design and maintenance (including lighting, markings, and surface treatment)," and for "surveillance of traffic for detection and correction of high or potentially high accident locations," which State safety programs must include.[123]

The Highway Safety Act of 1973 requires States to develop the following additional programs for the identification and elimination of specific highway safety hazards, and to report to the

Secretary on their progress, who must in turn report nationwide progress to Congress annually:

1. States must survey their Federal-aid highways to identify high-hazard locations dangerous to vehicles and pedestrians, and establish a schedule of projects to improve such locations.[124]

2. States must identify roadside obstacles hazardous to cars and pedestrians and implement programs to eliminate them, including a changeover to breakaway sign and lamp supports. Projects may be implemented on all Federal-aid systems except the Interstate system.[125]

3. The Secretary is authorized to approve pavement marking projects on any highway (expect Interstate System routes) to bring the highway up to pavement marking standards set by the Federal Highway Administrator. Preference is to be given to projects in rural areas, and to projects on nonFederal-aid roads. If a State reports that all its nonurban highways meet the Administrator's pavement marking standards, funds authorized for this program may be used to eliminate safety hazards at specific locations on nonFederal-aid highways.[126]

4. Each State must identify and undertake to correct safety hazards (including grade crossings, poor signing, poor marking, and roadside obstacles) on nonFederal-aid highways.[127]

There are several other highway programs administered by the Federal Highway Administrator which serve safety purposes. A special bridge replacement program directs the Administrator: to inventory all bridges on the Federal-aid system, to classify them according to serviceability, to assign each a replacement priority, and finally to fund 75 percent of such replacement.[128] For safety as well as beautification reasons there are statutes calling for the control and removal of billboards[129] and junkyards,[130] and directing

the Secretary to undertake a study of litter accumulation on Federal-aid highways.[131]

Generally, the Federal Highway Administrator is authorized to engage in research, independently or with other entities, into all phases of highway safety including construction, design, materials, geometrics, and desirable weight and size standards for vehicles.[132] Any research necessary to establish the highway design standards mentioned above is also authorized.[133] More specifically, the Highway Safety Act of 1973 authorizes the Secretary to conduct research and development to improve the effectiveness of pavement markings and related delineators, and to develop new marking techniques and traffic control devices to assist travelers during nighttime and adverse weather conditions.[134]

5.3 ELIMINATION OF RAILROAD GRADE CROSSING HAZARDS

The Secretary has delegated his authority to eliminate the hazards of railroad grade crossings to the Federal Highway Administrator[135] and the Federal Rail Administrator.[136] The Federal Highway Administrator may not approve a State's construction of a Federal-aid highway unless he determines that the State will install "proper safety protective devices complying with safety standards determined by the [Federal Highway Administrator] at that time as being adequate" on all railroad grade crossings along the proposed highway.[137] States can receive up to 100 percent Federal funding on projects to eliminate the hazards of such crossings "including the separation or protection of grades at crossings, the reconstruction of existing railroad grade crossing structures, and the relocation of highways to eliminate grade crossings."[138] The Highway Safety Act of 1973 directs the States to identify railroad grade crossings on Federal-aid systems requiring separation, relocation, or warning devices, and to arrange and carry out a schedule for making these improvements. As a minimum, signs are required at all crossings. The Federal share of such projects is 90 percent. The States must report annually to the Secretary,[139] who must then summarize national progress in a report to the Congress.[140]

Legislation has been enacted authorizing demonstration projects to help eliminate grade crossing hazards. Authorization is given for projects that will eliminate "all public ground level rail-highway crossings along the route of the high speed ground transportation demonstration projects between Washington, D.C. and Boston, Massachusetts.[141] The Federal Highway Administrator, in cooperation with State highway departments, is authorized to investigate and study the problem of increasing the safety of such crossings on a nationwide basis.[142] These demonstration projects and the investigation are to be undertaken in conjunction with more general research conducted by the Federal Rail Administrator to develop safe, efficient, and economical high speed ground transportation.[143] (See below.) Recently, the Secretary was authorized to arrange for demonstration projects in thirteen cities.[144] With State highway departments and local officials, the Secretary is directed to make a study of the feasibility of providing increased highway safety by the relocation of railroad lines from the central areas of cities on a nationwide basis.[145]

In addition, the Federal Railroad Safety Act of 1970 has a provision authorizing a study of how to eliminate and protect grade crossings and a study of "measures to protect pedestrians in densely populated areas along railroad rights-of-way."[145] Responsibility for conducting this study has been delegated to the Federal Railroad Administrator.[147] The Administrators of the FHWA, FRA, and NHTSA are directed to coordinate their efforts on developing and implementing solutions to this intermodal interface problem.[148]

6. RAILROAD SAFETY

6.1 RAILROAD OPERATIONS AND EQUIPMENT

The Secretary is authorized to carry out various railroad safety functions by the DOT Act, functions which had formerly been performed by the Interstate Commerce Commission.[149] Administration of these railroad safety statutes has been delegated to the Federal Railroad Administrator.[150] The Federal Rail Administrator is responsible for requiring certain safety appliances and equipment on railroad engines and cars.[151] The safety appliances required are as follows:

1. Power driving-wheel brakes and appliances for operating the train-brake system.[152]
2. Automatic couplers.[153]
3. Grab irons or handleholds for security in coupling and uncoupling cars.[154]
4. Drawbacks of a standard height for freight cars.[155]
5. Secure sill steps.[156]
6. Efficient hand brakes.[157]
7. Secure ladders and running boards when required.[158]
8. Safety ash pans on locomotives.[159]

The Administrator is authorized to investigate and report on the use and necessity of block-signal systems and appliances for the automatic control of railway trains,[160] and for any other appliances or systems intended to promote the safety of railway operations.[161] If found necessary after such investigation, the Administrator may order a rail carrier "to install the block signal system, interlocking, automatic train stop, train control, and/or cab-signal devices, and/or other similar appliances, methods, and systems intended to promote the safety of railroad operation."[162]

All railroads are required to make monthly accident reports to the Administrator.[163] He may then investigate any serious accidents and may make public reports thereon.[164]

The Federal Railroad Safety Act of 1970[165] (mentioned above in connection with grade crossings) was enacted to promote safer railroad operations, and to reduce accidents and injuries to persons and property.[166] This Act was designed to give the Administrator comprehensive authority in the area of railroad safety, in addition to all the specific provisions covered above. The Act's provisions apply to all rail transportation operations.[167] The Administrator is authorized to prescribe regulations and standards for all areas of railroad safety and to conduct, or contract out for, necessary research, development, testing, evaluation of data, and personnel training.[168] States may receive grants for participation with the Administrator in investigation and surveillance activities connected with enforcement of the promulgated standards.[169] The Administrator must make an annual report to Congress which is required to include, among other things, a list of accidents and casualties, an analysis of completed research and technological progress, and recommendations for additional legislation.[170]

Research under the Federal Railroad Act Safety Act should focus on three areas: derailment causes, such as equipment failure, including the design and manufacture of train wheels and axles, and the quality of rail, track, and roadbed maintenance; collision causes, especially human factors affecting rail safety, train control, and communications; and the grade crossing hazards mentioned above.[171]

6.2 HIGH SPEED GROUND TRANSPORTATION

The Act of September 30, 1965,[172] as amended, relating to high speed ground transportation, was transferred from the Commerce Department to DOT in 1966.[173] The Secretary later delegated his authority under this Act to the Federal Railroad Administrator.[174] The Act authorized demonstration projects and research and development on high speed and door-to-door ground transportation.[175] A

seven member Advisory Committee is established to advise the Administrator on policy matters, particularly with respect to which projects to undertake.[176] Safety is one factor which must be promoted in any research or demonstration projects conducted under the Act.[177] Research may include, but should not be limited to, "components such as materials, aerodynamics, vehicle propulsions, vehicle control, communications, and guideways."[178]

7. URBAN MASS TRANSPORTATION

The Urban Mass Transportation Act of 1964,[179] as amended, transferred to the Department of Transportation in 1966,[180] provides for: the development of mass transportation, encouragement of the planning and establishment of areawide urban mass transportation systems, and assistance to State and local governments in financing such systems.[181] A 1966 amendment to the Act directed that safety be one of the factors to be considered in an eighteen-month research, development, and demonstration project on new urban mass transportation systems.[182] In addition, general R&D provisions of the Act would seem to be broad enough to authorize safety-related research and development for the purpose of making proposed new systems and existing mass transit facilities, equipment, techniques, and methods safer.[183]

8. PIPELINE SAFETY

The Natural Gas Pipeline Safety Act of 1968,[184] as amended, directs the Secretary to establish minimum Federal safety standards for the transportation of gas via pipeline facilities.[185] Such standards should at least cover systematic testing of pipe already in the ground, the construction materials used on pipelines in differing climates, uniform markings for the location of pipelines, inspection of welding by radiographic methods, and new construction specifications.[186] The Secretary is authorized to enter into contracts or make grants to "conduct research, testing, development and training necessary for gas pipeline safety."[187] The Secretary is also responsible for liquid pipeline safety matters.[188]

9. HAZARDOUS MATERIALS TRANSPORTATION

Under the Hazardous Materials Transportation Control Act of 1970,[189] the Secretary is directed to establish facilities and a technical staff to evaluate the dangers of shipping various hazardous materials, to establish a central system for reporting accidents involving transportation of hazardous materials, and to recommend appropriate steps that can be taken immediately for safer movement of such materials.[190] In addition, the Secretary must submit an annual report to Congress including: a statistical compilation of accidents involving hazardous materials, a list of relevant Federal standards in effect, an evaluation of the degree to which those standards are being observed, a summary of major problems in the area, and recommendations for additional legislation.[191] The authority given to the Secretary in this Act is in addition to authority, transferred to him from the ICC,[192] to regulate the transportation of explosives and other dangerous articles by rail, pipeline, motor, and water carriers, and by freight forwarders.[193] Criminal sanctions may be imposed on those carriers transporting dangerous articles in violation of the statutes and regulations promulgated under this authority.[194]

10. NATIONAL TRANSPORTATION SAFETY BOARD

The National Transportation Safety Board was established in 1966 when the Department of Transportation was formed.[195] It exists within the Department but is independent of the Secretary and the other operating administrations.[196] The Board is charged with "(1) determining the cause or probable cause of transportation accidents and reporting the facts, conditions, and circumstances relating to such accidents; and (2) reviewing on appeal the suspension, amendment, modification, revocation, or denial of any certificate or license issued by the Secretary or by an Administrator."[197] The Board also has responsibility for civil aircraft accident investigations.[198] The Board is further authorized to: make recommendations to prevent accidents and promote safety, conduct studies on transportation safety, recommend procedures for accident investigations by the Secretary or an Administrator, and initiate or assist in rail, highway, or pipeline accident investigations.[197] The Board has no research and development authorization or responsibility. The Board may delegate, with certain exceptions, some of its functions to officials of the Department of Transportation with the approval of the Secretary,[200] and may use available services, equipment, personnel and facilities of the Department on a reimbursable basis.[201]

11. REFERENCES AND NOTES

1. P.L. 89-670.
2. 49 U.S.C. § 1653 (b) (3).
3. 49 U.S.C. § 1653 (a).
4. 49 U.S.C. § 1657 (q) (1).
5. 49 U.S.C. § 1655 (b) (1).
6. 14 U.S.C. § 2.
7. Id.
8. 14 U.S.C. § 81.
9. 14 U.S.C. § 86.
10. 14 U.S.C. § 87.
11. 14 U.S.C. § 88.
12. 14 U.S.C. § 90.
13. 46 U.S.C. §§ 85-88.
14. 46 U.S.C. §§ 170-170b. See also 18 U.S.C. §§ 831-836, authorizing the DOT Secretary to promulgate regulations for the transportation of hazardous cargoes, and establishing criminal penalties for unlawful carriage. The Secretary has delegated this authority with respect to the shipment of hazardous materials by water to the Commandant, United States Coast Guard. 49 C.F.R. 1.46(n).
15. 46 U.S.C. § 239.
16. 46 U.S.C. §§ 361-436. (46 U.S.C. § 391a (Supp. II, 1972) is part of the new Ports and Waterways Safety Act of 1972, covered below).
17. 46 U.S.C. §§ 451-498.
18. 33 U.S.C. § 152.

19. 33 U.S.C. § 157 (relating to navigation rules for harbors, rivers, and inland waters generally); 33 U.S.C. § 243 (relating to navigation rules for the Great Lakes and their tributaries as far east as Montreal); and 33 U.S.C. § 353 (relating to navigation rules for Red River of the North and rivers emptying into the Gulf of Mexico and their tributaries).

20. 33 U.S.C. § 157a.

21. 33 U.S.C. §§ 471-475.

22. 33 U.S.C. § 499.

23. 33 U.S.C. §§ 491-502, 511-524.

24. Ex. Ord. No. 11239 (July 31, 1965), as amended by Ex. Ord. No. 11382 (Nov. 28, 1967).

25. 33 U.S.C. §§ 1051-1094.

26. P.L. 92-75.

27. 46 U.S.C. § 1454.

28. 46 U.S.C. § 1452(1).

29. 49 C.F.R. § 1.46(o) (1).

30. 46 U.S.C. §§ 1452(3), 1466.

31. 46 U.S.C. §§ 1474, 1475, 1477.

32. 46 U.S.C. § 1486.

33. Implementation of the Ports and Waterways Safety Act of 1972 has been generally delegated to the Commandant of the Coast Guard. See 37 F.R. 21943 (1972). However, with regard to the Saint Lawrence Seaway, the Secretary's authority under this Act may be (and has been) delegated only to the Saint Lawrence Seaway Corporation. 33 U.S.C. § 1122(d). See 37 F.R. 21943.

34. P.L. 92-340.

35. 33 U.S.C. § 1221.

36. Id.

37. 46 U.S.C. § 391a.

38. 14 U.S.C. § 92(h).

39. 14 U.S.C. § 93(d).

40. 14 U.S.C. § 93(e).

41. 14 U.S.C. § 93(h).

42. 14 U.S.C. § 94.

43. 49 U.S.C. § 1655(c)(1). See also 49 C.F.R. § 1.47 (a), (g)(1).

44. P.L. 85-726.

45. P.L. 91-258.

46. 49 U.S.C. § 1421

47. 49 U.S.C. §§ 1422(a), (b).

48. 49 U.S.C. § 1423(a)(1), (a)(2).

49. 49 U.S.C. § 1423(b).

50. 49 U.S.C. § 1424.

51. 49 U.S.C. § 1432(a), (b)

52. 49 U.S.C. § 1430.

53. 49 U.S.C. § 1348(a); see also 49 U.S.C. § 1303(c).

54. 49 U.S.C. § 1348(b).

55. 49 U.S.C. § 1348(c).

56. P.L. 91-258.

57. 49 U.S.C. § 1712(a).

58. 49 U.S.C. § 1713(a).

59. 49 U.S.C. § 1711(2).

60. 49 U.S.C. § 1716(a).

61. 49 U.S.C. § 1501.

62. 49 U.S.C. § 1511.

63. 49 U.S.C. § 1353(c). Additional funds are available for safety-related research and development projects under this section from the Airport and Airways Trust Fund. See 49 U.S.C. § 1714(d).

64. 49 U.S.C. § 1353(b).

65. 49 U.S.C. § 1505.

66. 49 U.S.C. § 1653(e).

67. 49 C.F.R. 1.49(a).

68. 48 C.F.R. 1.48(a).

69. 49 U.S.C. § 1653(e). See also, 49 C.F.R. §§ 1.44(a)(5), 1.48(a), 1.49(a).

70. 49 U.S.C. § 1655(e)(6)(C).

71. 49 C.F.R. § 1.48(f).

72. 49 U.S.C. § 303(14).

73. 49 U.S.C. § 303(15).

74. 49 U.S.C. § 303(17).

75. 49 U.S.C. § 303(22).

76. 49 U.S.C. § 304(a)(1), (a)(2), (a)(3), (a)(3a).

77. 49 U.S.C. § 304(a)(5).

78. 49 U.S.C. § 1655(a)(6).

79. P.L. 89-563.

80. P.L. 89-564.

81. 49 C.F.R. § 1.51(a), (b).

82. 15 U.S.C. § 1392. The National Traffic and Motor Vehicle Safety Act of 1966 repealed the Brake Fluid and Seat Belt Standards Acts (P.L. 87-637 and 88-201 respectively) since these are two of the subjects to be covered in the standards promulgated under this section. S. Rep. No. 1301, Senate Committee on Commerce, 1966 U.S. Code Cong. and Adm. News 2709 at 2720.

83. 15 U.S.C. § 1391(3). See also S. Rep. No. 1301, Committee on Commerce, 1966 U.S. Code Cong. and Adm. News 2713.

84. 15 U.S.C. § 1392(d).

85. 15 U.S.C. §§ 1399, 1400(b), 1399(b), 1400(a), 1402.

86. 15 U.S.C. § 1401.

87. 15 U.S.C. § 1421.

88. 15 U.S.C. § 1422,1423.

89. 23 U.S.C. § 313 note.

90. P.L. 89-564.

91. P.L. 93-87.

92. 23 U.S.C. § 402.

93. 23 U.S.C. § 402(a).

94. P.L. 93-87, § 229.

95. P.L. 93-87, § 231(a), amending 23 U.S.C. s 402(a).

96. P.L. 93-87, § 231(b), amending 23 U.S.C. § 402(b)(1)(E).

97. P.L. 93-87, § 228, adding subparagraph (F) to 23 U.S.C. § 402(b)(1).

98. P.L. 93-87, § 219, adding paragraph (j) to 23 U.S.C. § 402.

99. P.L. 92-513.

100. 15 U.S.C. § 1912.

101. 15 U.S.C. § 1901(5), (6).

102. 15 U.S.C. § 1912(b)(1)(D), (b)(2).

103. 15 U.S.C. § 1941(a), (d).

104. S. Rep. No. 92-413, Senate Committee on Commerce, 1972 U.S. Code Cong. and Adm. News 3960 at 3961.

105. 15 U.S.C. § 1961.

106. 15 U.S.C. § 1962(a), (b).

107. P.L. 93-87, § 211(a). Due date for this study: June 30, 1974.

108. P.L. 93-87, § 211(c).

109. P.L. 93-87, § 212. Due date for this study: June 30, 1974.

110. P.L. 93-87, § 213. Due date for this study: January 1, 1975.

111. P.L. 93-87, § 214. Due date for this study: January 31, 1975.

112. P.L. 93-87, § 225. Due date for this study: January 10, 1976.

113. 15 U.S.C. § 1395.

114. 15 U.S.C. § 1914(d).

115. 23 U.S.C. § 403.

116. 23 U.S.C. § 307(a), (d).

117. 23 U.S.C. § 403.

118. P.L. 93-87, § 208(b)(2).

119. Id.

120. P.L. 93-87, § 226.

121. P.L. 93-87, § 222.

122. 49 C.F.R. § 1.48(n).

123. 23 U.S.C. § 402(a).

124. 23 U.S.C. § 152 (as added by P.L. 93-87).

125. 23 U.S.C. § 153 (as added by P.L. 93-87).

126. 23 U.S.C. § 151 (as added by P.L. 93-87).

127. 23 U.S.C. § 405 (as added by P.L. 93-87).

128. 23 U.S.C. § 144.

129. 23 U.S.C. § 131.

130. 23 U.S.C. § 136.

131. P.L. 93-87, § 155.

132. 23 U.S.C. § 307.

133. 23 U.S.C. § 403(6).

134. P.L. 93-87, § 206.

135. 49 C.F.R. § 1.48(b)(1), (o).

136. 49 C.F.R. § 1.49(n).

137. 23 U.S.C. § 109(e).

138. 23 U.S.C. § 130(a).

139. Responsibility for administering P.L. 93-87 has not yet been delegated.

140. P.L. 93-87, § 203.

141. 23 U.S.C. § 322(a), as amended.

142. 23 U.S.C. § 322(e), as amended. Funding is authorized for this study under 23 U.S.C. § 307.

143. 49 U.S.C. § 1631. 49 C.F.R. § 1.49(b).

144. P.L. 93-87, § 163(a), (k).

145. P.L. 93-87, § 163(1). Due date for this study: July 1, 1975.

146. 45 U.S.C. § 433(a). Due date for this study. Ocotber 16, 1971.

147. 49 C.F.R. § 1.49(n).

148. 45 U.S.C. § 433(b).

149. 49 U.S.C. § 1655(e)(1).

150. 49 C.F.R. § 1.49(c), (f), (g), (h), (k), and (n).

151. 49 U.S.C. § 1655(e)(1), (f)(3)(A).

152. 45 U.S.C. § 1.

153. 45 U.S.C. § 2.

154. 45 U.S.C. § 4.

155. 45 U.S.C. §§ 5, 12.

156. 45 U.S.C. § 11.

157. Id.

158. Id.

159. 45 U.S.C. §§ 17, 21.

160. 45 U.S.C. § 35.

161. 45 U.S.C. § 36.

162. 49 U.S.C. § 26(b).

163. 45 U.S.C. § 38.

164. 45 U.S.C. § 40.

165. P.L. 91-458. Authority to carry out this law has been delegated to the Federal Railroad Administrator. 49 C.F.R. § 1.49(n).

166. 49 C.F.R. § 421.

167. H.R. Rep. No. 91-1194, House Committee on Interstate and Foreign Commerce, 1970 U.S. Code Cong. and Adm. News 4104 at 4114.

168. 45 U.S.C. § 437.

169. 45 U.S.C. § 435.

170. 45 U.S.C. § 440.

171. H.R. Rep. No. 91-1194, House Committee on Interstate and Foreign Commerce, 1970 U.S. Code Cong. and Adm. News 4104 at 4111, 4107.

172. P.L. 89-220, as amended.

173. 49 U.S.C. § 1655(a)(2)(A).

174. 49 C.F.R. § 1.49(b).

175. 49 U.S.C. §§ 1631, 1632.

176. 49 U.S.C. § 1635.

177. 49 U.S.C. § 1631.

178. Id.

179. P.L. 88-365.

180. 49 U.S.C. § 1655(a)(2)(B).

181. 49 U.S.C. §§ 1601, 1601a.

182. 49 U.S.C. § 1605(b) (as added by P.L. 89-562).

183. 49 U.S.C. § 1605(a).

184. P.L. 90-481, 49 U.S.C. §§ 1671 ff.

185. 48 U.S.C. § 1962. Responsibility for pipeline safely has been retained by the Office of the Secretary.

186. 49 U.S.C. § 1672(b). See also, H.R. Rep. No. 1390, House Committee on Interstate and Foreign Commerce, 1968 U.S. Code Cong. and Adm. News 3223 at 3232.

187. 49 U.S.C. § 1682(a).

188. 18 U.S.C. § 834, transferred to the DOT from the Interstate Commerce Commission by the DOT Act, 49 U.S.C. § 1655(e)(4). P.L. 92-401, § 6 required the return of authority over liquid pipeline safety matters to the Secretary from the Federal Railroad Administrator, who had previously exercised this authority. See S. Rep. No. 92-829, Senate Committee on Commerce, 1972 U.S. Code Cong. and Adm. News 3049 at 3054, 3055.

189. P.L. 91-458. Responsibility for administration of this Act has been retained by the Office of the Secretary.

190. 49 U.S.C. § 1761(a).

191. 49 U.S.S. 1761(c).

192. 49 U.S.C. § 1655(e)(4).

193. 49 C.F.R. § 1.49(f) (delegation to Federal Rail Administrator with respect to rail shipment of explosives); 49 C.F.R. (§ 1.58(d) (2) (delegation of Office of Pipeline Safety with respect to pipeline movements (see 37 F.R. 24674)); 49 C.F.R. § 1.48(d) (delegation to Federal Highway Administrator with respect to shipment of explosives by motor carriers); 49 C.F.R. § 1.46(n) (delegation to Commandant of the Coast Guard with respect to shipment of explosives by water carriers).

194. 49 U.S.C. § 1655(e)(4), transferring 18 U.S.C. §§ 831-835 from the Interstate Commerce Commission to the Secretary.

195. 49 U.S.C. § 1654.

196. 49 U.S.C. § 1654(f).

197. 49 U.S.C. § 1654(b).

198. 49 U.S.C. §§ 1654(c), 1655(d).

199. 49 U.S.C. § 1654(d).

200. 49 U.S.C. § 1654(m).

201. 49 U.S.C. § 1654(o).