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Legal Implications of Highway Department's Failure to Comply with Design, Safety, or Maintenance Guidelines

A report prepared under ongoing NCHRP Project 20-6, "Right-of-Way and Legal Problems Arising Out of Highway Programs," for which the Transportation Research Board is the Agency conducting the Research. The report was prepared by Larry W. Thomas, TRB Counsel for Legal Research, principal investigator, serving under the Special Technical Activities Division of the Board.

areas of interest: 11 administration, 21 facilities design, 24 pavement design and performance, 40 maintenance, 51 transportation safety, 54 operations and traffic control, 70 transportation law (1 highway transportation, 2 public transit, 3 rail transportation)

THE PROBLEM AND ITS SOLUTION

State highway departments and transportation agencies have a continuing need to keep abreast of operating practices and legal elements of special problems involving tort liability, as well as highway law in general. This report and five others published as Research Results Digest 79, "Personal Liability of State Highway Department Officers and Employees," Research Results Digest 80, "Liability of State Highway Departments for Design, Construction, and Maintenance Defects," Research Results Digest 83, "Liability of State and Local Governments for Snow and Ice Control," Research Results Digest 95, "Legal Implications of Regulations Aimed at Reducing Wet-Weather Skidding Accidents on Highways," and Research Results Digest 110, "Liability of State and Local Governments for Negligence Arising Out of the Installation and Maintenance of Warning Signs, Traffic Lights, and Pavement Markings," deal with legal questions surrounding liability for negligent design, construction, or maintenance of highways.

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These papers are included in a three-volume text entitled, "Selected Studies in Highway Law." Volumes 1 and 2, dealing primarily with the law of eminent domain, were published by the Transportation Research Board in 1976; and Volume 3, dealing with contracts, torts, environmental and other areas of highway law, was published in 1978. An addendum to "Selected Studies in Highway Law," consisting of five new papers and updates of eight existing papers, was issued during 1979, and a second addendum, consisting of two new papers and 15 supplements, was distributed early in 1981. The three volumes now total more than 2,000 pages comprising 48 papers, some 23 of which have been supplemented during the past 2 years. Copies have been distributed to NCHRP sponsors, other offices of state and federal governments, and selected university and state law libraries. The officials receiving copies in each state are: the Attorney General, the Highway Department Chief Counsel, and the Right-of-Way Director. Beyond this initial distribution, the text is available through the TRB publications office at a cost of $90.00 per set.

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INTRODUCTION

This paper discusses the legal effect of various highway standards, guidelines, and policies (all of which are hereinafter referred to as "guidelines") that have been issued for the purpose of improving highway safety. (In some contexts the term "standards," or some other term, will be more appropriate than "guidelines.") The fact that there are numerous guidelines, any one or more of which may be relevant in an action against the department for a highway defect, is one reason to discuss their legal implications.

However, another reason is that the changing characteristics of passenger vehicles may result in some modification of existing guidelines. It is apparent that there is a trend towards smaller and lighter passenger automobiles, so-called "down-sizing." Recent studies [1] have demonstrated that some design changes may occur because of this development; for example, increased distances required for passing; reduction of visibility of vehicles; modification of the safety performance of breakaway signs, poles, or supports; and redesign or modification of guardrails. With respect to the latter, one article has noted that early research and testing of breakaway signs and of guardrail and median barriers generally were conducted with vehicles weighing 3,500 to 4,000 pounds rather than with today's lighter vehicles which may weigh as little as 1,700 to 1,800 pounds.[2] Some research has already begun "to examine highway safety hardware development and acceptance criteria." [3]

Although no cases were found that consider specifically the problem of existing standards and newer, smaller vehicles, there are cases in which the existence of guidelines has been significant. Among some of the interesting issues are: whether existing highways must be upgraded when new guidelines are promulgated; whether barriers or other safety features—not included when a highway was constructed—must be installed when it appears that a location has become dangerous; and whether compliance with applicable guidelines will absolve the department of alleged negligence.

The first major section of this paper is concerned with an overview of tort claims against highway agencies; the department's duties with respect to the design and maintenance of highways; the rule that the department, subject to important exceptions, may be immune from liability for design defects; and the liability of the department for maintenance operations.

The second section deals briefly with some of the laws and regulations, particularly at the federal level, that pertain to guidelines applicable to highways.

Considered next is the general question of admissibility of guidelines, whether issued as statutes or regulations or sponsored by governmental or nongovernmental associations. Such guidelines appear to be admissible in Federal and numerous, although not all, State courts at this time. In addition to the methods by which guidelines are admitted at trial, the paper discusses the role guidelines have on the department's standard of of care. Also discussed is the question of when a violation of a guideline may constitute negligence *per se*.

The fourth section discusses some of the issues arising out of guidelines applicable to highway design and safety. Immunity for highway design functions is treated, as well as some statutory authority for immunity for design based on prior approval of guidelines shown to have a reasonable basis when approved. The possible use of guidelines in cases involving dangerous conditions and "changed conditions" after highway construction is discussed. Other pertinent issues are considered; for example, whether compliance with approved or generally accepted standards will exculpate the department of liability, or whether existing highways must be upgraded to meet contemporary standards.

Guidelines applicable to maintenance and maintenance procedures also have legal implications. Cases are discussed that hold that a specified procedure may be used to establish that the department should have had notice of an unsafe condition and that the department failed to meet its own standard of care.

TORT CLAIMS AGAINST HIGHWAY DEPARTMENT

Other articles have discussed in greater detail the liability of highway departments arising out of the design, construction, and maintenance of highways.[4]

In many states claims may be brought against the highway agency for negligence in the performance of its duties. The reason is that the doctrine of sovereign immunity has been greatly eroded, if not eliminated, because of legislation or judicial decisions. For the purposes of this paper, it is assumed that the highway department may be sued for negligence to the extent permitted by statute or judicial decision.

Although the legislation varies from state to state, many states have enacted some form of tort claims act that allows injured persons to bring an action for injuries arising out of highway defects; for example: Alaska, California, Colorado, Connecticut, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, and Washington.[5]

In addition, negligence suits may be maintained in the States of Arizona, Louisiana, and Missouri because of judicial decisions.[6] In other states, such as Arkansas, Georgia, North Carolina, Kentucky, Tennessee, and West Virginia, a special body has been created to hear such claims; again, the statutes vary from state to state.[7]

Highway departments have a duty to design, construct, and maintain highways properly and to give adequate warning of hazardous or dangerous conditions to the reasonably prudent driver.[8] Although highway agencies must exercise reasonable care, they are not required to guarantee that the highways are absolutely safe.[9]

The possibility of accidents must be considered by public agencies responsible for designing and planning highways. Where safety features, such as guardrails or barriers, are used, they must be planned and built in accordance with generally recognized or approved engineering practices.[10]

In cases involving alleged design defects, whether at common law or pursuant to tort claims acts, there is a general rule of immunity applied to the highway departments for its actions.

The reason is that the formulation and evaluation of a highway plan or design are thought to involve the consideration of "policy-type" factors and the exercise of discretion and judgment. Thus, many cases have held that governmental entities "are not liable generally for the consequences of accidents due either to an ill-conceived plan for a highway or to the fact that one particular design was chosen over another." [11]

Although there appears to be a general rule of immunity for design errors, there are important exceptions. For example, courts may refuse to apply any such rule where the plan was prepared without adequate care; where it was so obviously and palpably dangerous that no prudent person would approve its adoption; or where there are "changed conditions" presenting such a danger as to obviate any original immunity that "attached" to the design.

Although there are exceptions, discussed *infra* at note 63, whenever the reasonableness of a plan or design is challenged, the rule generally followed is that the highway "must be judged according to the engineering and safety standards existing at the time it was approved, even though the design might not be considered acceptable under modern standards." [12]

As for maintenance, the courts are less likely to find that the highway department enjoys any immunity as in the design area. The reason is that the courts generally hold that highway maintenance is an "operational" level activity not requiring the exercise of discretion present in highway design.

In determining whether the department has met its standard of care in a given case, one or more factors may be relevant. One relevant factor may be whether the highway is designed and constructed in accordance with generally recognized or approved standards, policies, or guidelines. If the action involves negligent maintenance, it may be appropriate to determine whether any applicable departmental maintenance procedures were not followed.

GUIDELINES APPLICABLE TO HIGHWAYS

This section is a brief description of some of the statutes and regulations governing the safety of highways. Although these or other guidelines may be applicable to state highways, this section deals primarily with those adopted by the Federal Highway Administration (FHWA) that are applicable to Federal-aid highways.

There are several sources of authority at the federal level pertaining to the issuance of guidelines governing highway safety. For example, 23 U.S.C. § 109(a) provides that "the Secretary shall not approve plans and specifications for proposed projects on any Federal-aid system if they fail to provide for a facility . . . that will be designed and constructed in accordance with standards best suited to accomplish the foregoing objectives and to conform to the particular needs of each locality."

Section 109(d) provides that on federally funded projects "the location, form and character of informational, regulatory, and warning signs, curbs and pavement or other markings, and traffic signals installed or placed by any public authority or other agency, shall be subject to the approval of the State highway department with the concurrence of the Secretary. . . ."

In addition, 23 U.S.C. § 402(a) provides, in part, that each State shall have an approved highway safety program; that the program shall be in accordance with uniform standards promulgated by the Secretary; and that the standards shall include highway design and maintenance, including lighting, marking, surface treatment, and traffic control.

It may be noted, however, that 23 U.S.C. § 402(C) states that "[i]mplementation of a highway safety program under this section shall not be construed to require the Secretary to require compliance with every uniform standard, or with every element of every uniform standard, in every State."

The word "standard" does not seem to be defined in this context and its exact meaning is somewhat unclear. There are several publications, discussed in the following, incorporated by the federal regulations which may not be intended necessarily to be absolute rules, but rather are meant to allow flexibility and the exercise of discretion depending on the individual situation.

The regulations, moreover, are not confined to "standards" but refer to "standards, specifications, policies, guides, and references" that are acceptable to the FHWA.[13]

One reason for using "guidelines" in this paper to refer to these categories is that the term "standard" may suggest that all of these terms have equal legal importance or effect. Although there appears to be no case law on the distinctions,[14] FHWA defined the meanings of these terms in its Policy and Procedure Memorandum (PPM) 40-2 (April 17, 1972). The distinctions may be significant in deciding what consequences, if any, should attach to the failure to follow these publications.

Thus, PPM 40-2 defined some of these terms as follows:

> a. Highway design standards and specifications are those design principles and dimensions derived from basic engineering knowledge, ex-

perience, research and judgment that are officially designated and adopted by highway authorities as the specific controls for design of highways.

b. Highway design policies are those procedures and controls which are less specific than design standards, often with a range of acceptable values, and which are officially adopted or accepted for application in the design of highways.

c. Highway design guides include information and general controls that are more flexible and indefinite than policies but which are valuable in attaining good design and in promoting uniformity. They constitute the best available information on the particular subject and should be used until more definite criteria can be determined.

The *Code of Federal Regulations* (C.F.R.) lists a wide variety of approved "standards, specifications, policies, guides, and references" applicable to Federal-aid projects.

Thus, 23 C.F.R. § 625.1 *et seq.*, "Design Standards for Highways," lists 20 that are applicable to the roadway and appurtenances; 6 for bridges; 7 for traffic control; 3 for materials; and 2 for "other aspects" of highways. (See Appendix A, 23 C.F.R. Part 625 for complete listing.) Elsewhere in 23 C.F.R. § 626.1 *et seq.*, there are regulations relating to pavement design policy.

Also, 23 C.F.R. § 1204.4, which contains Highway Safety Program Standard No. 12, "Highway Design, Construction and Maintenance," provides:

> Every State in cooperation with county and local governments shall have a program of highway design, construction, and maintenance to improve highway safety. Standards applicable to specific programs are those issued or endorsed by the Federal Highway Administrator.

No decisions were found that consider the requirements of the aforementioned statutes and regulations, although several courts, as noted herein, have discussed specific publications referenced in the foregoing regulations. The courts, for example, more often have discussed the effect of a failure to comply with the *Manual on Uniform Traffic Control Devices* (MUTCD). This publication, developed with the cooperation of the American Association of State Highway and Transportation Officials (AASHTO) and other groups, has been approved pursuant to 23 U.S.C. §§ 109(b), 109(d), and 402(a) and 23 C.F.R. § 1204.4, by the Federal Administrator as the "national standard" [15] for all highways open to public travel. The MUTCD, moreover, has been adopted in many states pursuant to specific statutory authority.[16]

ADMISSIBILITY OF GUIDELINES IN EVIDENCE AND USE AT TRIAL

This section discusses whether guidelines applicable to the design, safety, or maintenance of highways are admissible at trial. It also discusses the methods by which they are admitted and the evidentiary purposes for which they may be used.

Admissibility

As with any evidence, before guidelines are admissible they must be relevant and material to the issue being tried. "Testimony is relevant if it has a legitimate tendency to establish or disprove a material fact." [17] Even if the particular guidelines are relevant and material, they may still be inadmissible hearsay in some jurisdictions; however, in many jurisdictions they are now admitted pursuant to an exception to the "hearsay rule."

Guidelines may be incorporated in statutes or regulations, thus having the force or effect of law.[18]

Guidelines applicable to highways that are incorporated by statute or regulation and are relevant to the issue in the case have been admitted in evidence.[19]

The rule that such guidelines should be admitted seems particularly apposite when the public agency having adopted guidelines by statute or regulation is the one alleged to have failed to comply with the same.[20]

For example, in *State v. Watson*,[21] involving negligence in the construction and maintenance of a bridge on an Interstate highway and the failure to post appropriate warning devices, the trial court admitted certain provisions of the MUTCD. The relevant provisions were shown to have been violated at the approach to a bridge. The ruling admitting the MUTCD was upheld on appeal:

> The admission of this manual was proper, under either one of two theories: (1) as evidence of standard, custom or usage in this country, to be considered by the jury in connection with its determination of whether the state used ordinary care in this specific instance . . . ; or (2) as evidence that the state failed to meet the safety standards set for itself by the enactment of A.R.S. § 28-641 [statute requiring highway commission to adopt manual conforming to system current and approved by AASHO]. This latter purpose is grounded on the hypothesis that the jury may have determined the State Highway Commission had not conformed its traffic-control system "so far as possible" with the system "then current" with the American Association of State Highway Officials. *Generally, safety regulations adopted by a defendant for its own guidance are admissible in evidence.*[22] (Citations omitted; emphasis supplied.)

There may be guidelines, sponsored by governmental or nongovernmental associations and not having the force of law, which are nonetheless admissible in evidence. Not all jurisdictions will allow such guidelines to be admitted. An extensive annotation [23] on the subject, however, finds the trend to be in favor of their admissibility, assuming, of course, that they are relevant and material. That annotation concludes:

> While at one time it appeared that one could identify a majority rule that safety codes or standards promulgated by governmental or private authorities and lacking the force of law were not admissible in evidence on the issue of negligence, the modern trend towards greater admissibility of these codes and standards has apparently been great enough to make it unwise to attempt to identify any majorty rule or minority rule.
>
> Thus, a number of cases support the view that codes or standards of safety issued or sponsored by governmental bodies or by voluntary associations and not having the force of law, but relevant to the issue

of negligence under the circumstances of a particular case, are admissible in evidence. In support of the rule of admissibility, it has been suggested that safety codes are objective standards representing a consensus of opinion carrying the approval of a significant segment of an industry, and that such codes and standards contain the elements of trustworthiness and necessity which justify an exception to the hearsay rule.

A number of cases, however, support the contrary view—that is, the inadmissibility of safety codes or standards issued or sponsored by governmental bodies or by voluntary associations and not having the force of law. In support of the rule of inadmissibility, it has been reasoned that such codes and standards have no compulsive force and represent merely the opinion of their authors, not delivered under oath and not subject to cross-examination.[24]

The Fifth Circuit Court of Appeals has noted:

> Courts have become increasingly appreciative of the value of national safety codes and other guidelines issued by governmental and voluntary associations to assist the trier of fact in applying the standard of due care in negligence cases.[25]

An example of safety guidelines not having the force of law that were admitted into evidence is *Muncie Aviation Corp. v. Party Doll Fleet, Inc.*[26] The issue in that case was

> whether advisory materials not having the force and effect of law but published by a governmental agency, are admissible as an exception to the hearsay rule, when such materials are relevant to the issue of negligence and are otherwise trustworthy.[27]

The case involved the collision of two aircraft. Muncie claimed that the Party Doll pilot failed to follow the standard traffic pattern procedures at an uncontrolled airport.

The trial court permitted plaintiff to introduce two "advisory circulars" promulgated by the Federal Aviation Administration (FAA). These contained recommended landing procedures for pilots approaching uncontrolled airports. The recommendations, though merely advisory, were offered by plaintiff as evidence of the standard of care customarily followed by pilots approaching uncontrolled airports.

The Appellate Court ruled that the circulars (1) were relevant evidence of customary practices among aircraft pilots, and (2) did not violate the general prohibition against the use of hearsay.

As the Court noted in *Muncie, supra,* guidelines had often been admitted within the discretion of the trial court as an exception to the hearsay rule. Presently, Rule 803 (18) of the FEDERAL RULES OF EVIDENCE (F.R.E.), discussed *infra* at note 28 is the exception by which these standards and guidelines may be admissible in proceedings in the federal courts.[28] (The federal rule has been adopted in a number of states.)

One reason for the exception is that safety codes, standards, and guidelines are considered to be trustworthy. This element of trustworthiness, as well as "practical necessity," was the rationale for the decision in *Muncie, supra.* The Court, in upholding the admission of the FAA advisory circulars, stated:

> The elements of practical necessity and trustworthiness are similarly present in the instant case. The virtual impossibility, not to mention practical inconvenience and prohibitive cost, of locating and calling as witnesses the various compilers of the advisory circulars in order to test their recommendations by cross-examination, makes use of the circulars a practical necessity for obtaining the information contained in the recommendations. Their trustworthiness is guaranteed by the fact that they were recently published by a governmental agency whose only conceivable interest was in insuring safety and whose recommendations "should have the highest probative value regarding national, state, or local practices.". . . Though the law is by no means settled, this Court finds that the inherent trustworthiness of such codes and recommendations, coupled with the need for their introduction in order to impart relevant information not contained elsewhere, is sufficient to justify their admission, notwithstanding the traditional dangers of hearsay evidence.[29]

Pursuant to F.R.E. 803 (18), the Court held in *Johnson v. William C. Ellis & Sons Iron Works, Inc.,*[30] that it was reversible error to exclude certain governmental and nongovernmental safety publications offered by the plaintiff. The Court stated:

> [S]afety codes and standards are admissible when they are prepared by organizations formed for the chief purpose of promoting safety because they are inherently trustworthy and because of the expense and difficulty involved in assembling at trial those who have compiled such codes.[31]

As noted in the Annotation some states, for reasons similar, if not identical, to those discussed in *Muncie, supra,* have ruled that governmental and nongovernmental safety guidelines may be admissible.

One state decision to that effect is *McComish v. DeSoi,*[32] in which the Court ruled that certain construction industry safety codes were admissible. The Court's opinion stressed the fact that "a safety code ordinarily represents a consensus of opinion carrying the approval of a significant segment of an industry."[33]

It may be noted that the Court in *Boston and Maine Railroad v. Talbert*[34] upheld the admissibility of "nationally recognized standards" (not otherwise identified by name) concerning the design of highway and railroad crossings.

Of course, not all jurisdictions will allow safety guidelines to be admitted. On the other hand, the trend appears to favor admissibility, and, as noted, numerous states have adopted Rule 803 (18) or a variation thereof.[35]

Methods of Introduction Into Evidence

As seen, Rule 803 (18) is one of the exceptions to the rule prohibiting hearsay evidence; it provides:

> The following are not excluded by the hearsay rule, even though the declarant is available as a witness:
>
> (18) *Learned Treatises.* To the extent called to the attention of an expert witness upon cross-examination or relied upon by him in direct examination, statements contained in published treatises, periodicals, or

> pamphlets on a subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice. If admitted, the statements may be read into evidence but may not be received as exhibits.

Before one may use a particular code, standard, or guideline in direct examination or cross-examination, it must be "established as a reliable authority." One way is by testimony of a witness, either by admission of the witness being cross-examined or by one's own expert on direct examination. If the guideline is being offered during direct examination, one should lay a foundation showing it is "widely followed and highly regarded in the relevant industry." [36]

The guidelines also may be established as reliable authority by judicial notice under Rule 803 (18). However, judicial notice does not dispense with the use of an expert witness. The material must still be offered in conjunction with expert testimony, judicial notice being used only to establish that the material is a reliable authority before it is read into evidence.[37]

Presumably, a third way to establish the guidelines' reliability is by stipulation.[38]

An expert may be allowed to rely on the guidelines during direct examination. Alternatively, the material may be used during cross-examination of an expert witness. Clearly, such use is permitted under Rule 803 (18). However, it should be noted that in some states where standards or guidelines are not admissible in the direct examination of an expert, they may be introduced indirectly in the cross-examination of an expert witness.[39] The permissible use of guidelines during cross-examination may vary among the individual jurisdictions.

Evidentiary Purposes For Which Used

Standard of Care

Generally, the purpose for which guidelines are admitted is to show what the applicable standard of care is on a given issue.[40] Although the guidelines are no doubt important and carry considerable weight, they "do not conclusively determine the applicable standard of care, but are merely one kind of evidence to help the jury determine the issue of reasonable care." [41]

The guidelines may assist the jury in deciding what the standard of care is and whether there has been a negligent deviation from it. As the Court noted in *McComish v. DeSoi,*[42]

> In applying the standard reasonable men recognize that what is usually done may be evidence of what ought to be done. And so the law permits the methods, practices or rules experienced men generally accept and follow to be shown as an aid to the jury in comparing the conduct of the alleged tortfeasor with the required norm of reasonable prudence. It is not suggested that the safety practices are of themselves the absolute measure of due care.

In *State v. Watson,*[43] *supra,* involving the admissibility of the MUTCD, the State argued that the Manual was not adopted in Arizona until four months after the accident, but the Court ruled that the admission of the evidence was proper. The Court noted that one of defendant's experts testified that "this manual was a 'guide line' in this country." Also, one of the plaintiff's experts—a traffic engineer—testified that the bridge and its lack of warnings did not constitute good practice in engineering and design and did not comply with the Manual.

In ruling that admission of the Manual was proper, the Court held that it was evidence of the standard of care followed in the United States. Thus, it was correct to allow the jury to consider the MUTCD in making its determination of whether the State had met its standard of ordinary care.[44]

Relevant guidelines, even those not having the force of law, may be admitted in evidence and considered together with all the other facts and circumstances to determine the issue of liability.

An example is *American State Bank v. County of Woodford,*[45] in which one question was whether it was proper to allow the jury to consider two documents entitled *Minimum Design Policies For Federal Aid Secondary Highways, County and Road District Roads: General Requirements;* and *Design Policies For Federal Aid Secondary Highways, County and Road District Roads: Geometric Requirements.* Both were taken from a manual issued by the State of Illinois Department of Transportation.[46] Expert witnesses testified that these standards were objective criteria to measure the safety of the road at the time of the occurrence.[47]

The standards did not have the "force of law" in this case because county highways were not required by State law to conform to any particular standard. The Court held, however, that it was proper to give the instruction, *supra* note 46, because it stated that the violation of the policies was to be considered "together with all the other facts and circumstances in evidence" in determining the question of negligence. That is, the jury was instructed that it might consider a violation as some evidence of negligence, but the jury was not instructed that a violation conclusively established negligence.

The various guidelines applicable to highways, some of which are noted under the heading "Guidelines Applicable to Highways," *supra,* vary in terms both of specificity and permitted discretion. That is, some of the materials contain specific, mandatory provisions, whereas others are more general and discretionary in nature. Although there appears to be little discussion of this distinction in the cases, one case does provide some guidance, suggesting that more general guidelines are admissible but that that feature affects the weight to be given them.

Thus, the Court held in *Dillenbeck v. City of Los Angeles* [48] that "discretionary" guidelines are admissible, although their probative weight may be less. The Court was careful to state that such discretionary rules (involving the operation of emergency vehicles) were but one component of the standard of care to be considered in light of all the circumstances.

The Court stated, in a footnote, that a safety guideline may be inadmissible if it is so general and discretionary that it fails "to particularize the standard of care for the jury," thereby having no probative weight.[49]

Once the more general, discretionary guideline is admitted, it appears that counsel will have to control its impact through testimony, carefully worded instructions, and argument to the court or jury.[50]

The *Dillenbeck* case highlights the problem of admission of general, discretionary guidelines. Another issue is the admission of a guideline that, although appearing to be silent on the matter being litigated, is said to have some bearing by implication. For example, in *Grubaugh v. St. Johns,*[51] the defendant argued that provisions of the MUTCD were inadmissible because the Manual was a guide to types of signs and did not indicate whether signs were necessary in any given situation; thus, evidence of the MUTCD was irrelevant because the issue in the case was whether an intersection was unsafe without signs.

The Court ruled, however, that the evidence was proper:

> The availability of signs designed for "T" intersections which would make such intersections more safe would tend to establish that the instant intersection was unsafe without such signs. The trial court did not abuse its discretion.[52]

Much of what was said about the effect of a violation of design and safety guidelines applies to violations of departmental maintenance procedures. As noted in *State v. Watson, supra:*

> Generally, safety regulations adopted by a defendant for its own guidance are admissible in evidence.[53]

Whether issued as a regulation, or as an internal memorandum or directive, it appears that rules or procedures adopted by a party—in this instance the highway department—for the guidance or control of its employees in the performance of their duties are admissible in most states.

> The reason most commonly assigned in support of the theory or doctrine of admissibility is that the employer's rule, while not conclusive of the question, constitutes some indication of the care required under the circumstances, and may properly be considered by the jury in determining the question of negligence *vel non.* . . . It has also been variously stated that rules and regulations for the guidance of employees in respect of operations which may affect the safety of others are in the nature of an admission or declaration against interest that due care required the course of conduct prescribed, [or] that they constitute a recognition by the defendant of the propriety or necessity of the prescribed regulations.[54]

It appears that in the *Abbott, Kaatz,* and *Hunt* cases, discussed *infra* under the heading "Guidelines Applicable to Maintenance," there was no question but that the department's maintenance procedures were admissible to show that the State should have known of the defective highway condition and to establish the standand of care owed to the public.

Negligence Per Se

The preceding cases demonstrate that even general, discretionary guidelines may be admitted and considered together with all of the other evidence in determining the applicable standard of care. In some instances, however, guidelines are specific and mandatory in nature. A violation of those guidelines may constitute not merely evidence of negligence but negligence *per se.*

It may be remembered that in tort law the violation of a statute or regulation under certain circumstances [55] may conclusively establish negligence and result in civil liability, thus, the doctrine of negligence *per se.*[56] Violations of certain safety statutes and regulations often come within the meaning of this doctrine.

Dean Prosser, in his discussion of negligence *per se* and evidence of negligence states:

> Once the statute is determined to be applicable—which is to say, once it is interpreted as designed to protect the class of persons in which the plaintiff is included, against the risk of the type of harm which has in fact occurred as a result of its violation—the great majority of the courts hold that an unexcused violation is conclusive on the issue of negligence, and that the court must so direct the jury. The standard of conduct is taken over by the court from that fixed by the legislature, and "jurors have no dispensing power by which to relax it," except in so far as the court may recognize the possibility of a valid excuse for disobedience of the law. This usually is expressed by saying that the unexcused violation is negligence "per se," or in itself. The effect of such a rule is to stamp the defendant's conduct as negligence, with all of the effects of common law negligence, but with no greater effect. There will still remain open such questions as the causal relation between the violation and the harm to the plaintiff, and, in the ordinary case, the defenses of contributory negligence, and assumption of the risk.[57]

Of course, a violation of an applicable guideline having the force of law may constitute negligence *per se.* In *Jorstad v. City of Lewiston,*[58] involving the alleged improper design of a traffic control device, it was shown that the plan was not designed by an engineer and that the construction was not conducted under the supervision of a licensed engineer, all in apparent violation of a state statute. The Court held that it was "negligence per se to have unauthorized personnel draft the 'plans' for this intersection." [59]

Furthermore, the Court held that the failure "to follow the letter" of the MUTCD was negligence as a matter of law:

> Under I.C. § 49-603, local authorities must comply with state requirements. I.C. § 49-601 requires that the department of highways adopt a manual for a uniform system of traffic controls which complies with the system approved by the American Association of State Highway Officials. The system approved by that body is incorporated in the Manual in question and has been specifically adopted by the Idaho State Department of Highways. This manual has the force of law and failure to comply with it is negligence per se.[60]

In *Jorstad v. City of Lewiston, supra,* although the violation of the regulation was held to be negligence *per se,* it appears that the issue in that case was the adequacy of the warnings given and not the failure to provide the warnings. Thus, the Court was dealing with the requirement that the signs be erected to conform to the specifications, not with the decision whether to erect signs, which may have been discretionary.[61]

Thus, cases appear to hold that if the regulation allows the agency to exercise its discretion and does not direct that its action conform to a prescribed, mandatory standard, the deviation from the standards may be considered to be some evidence of negligence but is not negligence *per se.*[62]

GUIDELINES APPLICABLE TO HIGHWAY DESIGN AND SAFETY

Immunity For Highway Design and Exceptions Thereto

A threshold question, before considering the issue of compliance with standards, is whether the highway agency can be held liable for negligent design. As noted, there are jurisdictions which hold that the design of public improvements requires the skill of trained specialists, whose judgment involves the exercise of discretion, and, even if erroneous, should not be "second-guessed" by untrained laymen.[63]

There are, however, several important exceptions to such broad immunity: for example, (1) the Court may require a sufficient showing that the design was prepared with ordinary care; (2) there may be liability for a highway defect that is "obviously and palpably dangerous"; or (3) there may be liability where the plaintiff is able to show that "changed conditions" have caused the highway design to become dangerous in actual use. Whenever any of the foregoing exceptions are an issue, the fact that the highway is, or is not, in compliance with generally accepted guidelines may be important.

This rule of immunity for design activities, subject possibly to one or more of the foregoing exceptions, was developed by the courts and now finds expression in the discretionary function exemption in tort claims legislation enacted in many states.[64]

Of course, it is possible to go even further and enact a statute specifically granting immunity to public agencies for the design of their public improvements. An example is the California design immunity statute,[65] compliance with which may shield the State from liability for a dangerous condition of public property where the accident is caused by a defect in the plan or design of the public improvement.

This statute, although somewhat unique, reflects limitations previously established by courts in other states [66] and provides as follows:

> Neither a public entity nor a public employee is liable under this chapter for an injury caused by the plan or design of a construction of, or an improvement to, public property where such plan or design has been approved in advance of the construction or improvement by the legislative body of the public entity or by some other body or employee exercising discretionary authority to give such approval or where such plan or design is prepared in conformity with standards previously so approved, if the trial or appellate court determines that there is any substantial evidence upon the basis of which (a) a reasonable public employee could have adopted the plan or design or the standards therefor or (b) a reasonable legislative body or other body or employee could have approved the plan or design or the standards therefor. Notwithstanding notice that constructed or improved public property may no longer be in conformity with a plan or design or a standard which reasonably could be approved by the legislative body or other body or employee, the immunity provided by this section shall continue for a reasonable period of time sufficient to permit the public entity to obtain funds for and carry out remedial work necessary to allow such public property to be in conformity with a plan or design approved by the legislative body of the public entity or other body or employee, or with a plan or design in conformity with a standard previously approved by such legislative body or other body or employee. In the event that the public entity is unable to remedy such public property because of practical impossibility or lack of sufficient funds, the immunity provided by this section shall remain so long as such public entity shall reasonably attempt to provide adequate warnings of the existence of the condition not conforming to the approved plan or design or to the approved standard. However, where a person fails to heed such warning or occupies public property despite such warning, such failure or occupation shall not in itself constitute an assumption of the risk of the danger indicated by the warning.

To have the benefit of the statutory immunity the State must show that the plan or design was approved in advance of the construction or improvement by the legislative body of the public entity or by some other body or employee exercising discretionary authority to give such approval. However, this requirement is met if the "plan or design is prepared in conformity with standards previously so approved" and if there is substantial evidence that a reasonable public employee or the legislative body could have approved the plan or design or the standards therefor.

Of course, the reason for highlighting this particular statute is the language to the effect that immunity may attach to a plan or design where it is prepared in conformity with previously approved standards. There is judicial authority holding that there must be substantial evidence supporting the reasonableness of the standards at the time of approval.[67]

The above immunity may be lost if there are "changed conditions," another way of saying that the design immunity is not perpetual.[68] In contrast, one state, New Jersey, has sought to make it clear that design immunity in that State is perpetual.[69] Also, other courts have held that the reasonableness of the plan or design of a highway is to be judged at the time of approval by the standards then in use. Perpetuity, however, is not the rule under the California design immunity statute because of judicial decisions on "changed conditions."

A leading case on "changed conditions" is *Baldwin v. State*;[70] the Court held that the State had a duty to provide a special lane for left turns when it became apparent that an intersection was dangerous because of changed traffic conditions. The Court held:

> Having approved the plan or design, the governmental entity may not, ostrich-like, hide its head in the blueprints, blithely ignoring the actual operation of the plan. Once the entity has notice that the plan or design, under changed physical conditions, has produced a dangerous condition of public property, it must act reasonably to correct or alleviate the hazard.[71]

There is also authority in New York to the effect that there is a duty to review a plan or design once the public improvement is in operation.[72]

In sum, although there may be, pursuant to judicial decision or statute, immunity generally for the design of highways, the rule is not without exceptions. Accordingly, in a negligence action arising out of alleged defective highway design or safety, the department's compliance with design or safety guidelines may be quite important.

Highways Constructed in Compliance With Guidelines

Only a few decisions have been found involving tort claims against highway departments for alleged design or safety defects where the highway in question was constructed in accordance with contemporary guidelines. Although compliance with applicable guidelines is not conclusive on the question of whether the department has exercised reasonable care, it appears that the fact of compliance is persuasive. However, there must be a consideration of the particular needs of a highway location when applying approved guidelines.

The city's compliance with required minimum guidelines appears to have been a persuasive factor in *Moritz v. City of Santa Clara.*[73] A vehicle struck the plaintiffs while they were in a crosswalk. The City was alleged to have been negligent because the crosswalk was unlighted, unpatrolled, unguarded, and failed to have warning signs.

However, the Court held that the City was not negligent, emphasizing that the crosswalk was in compliance with the Code:

> The pattern was that used throughout the State of California and is in compliance with the requirements of Vehicle Code, section 21368. The standards conformed to or exceeded those contained in the planning manual published by the State of California, Department of Public Works, Division of Highways.[74]

Accordingly, any alleged errors or defects in the plan or design were protected from liability by the California design immunity statute, *supra.*

> [T]he "design defense" is valid where there is any substantial evidence that a reasonable employee or legislative body could have approved the plan which actually was approved. A design which clearly comports with the provisions of the Vehicle Code and also with the specifications of the Division of Highways certainly meets this test. The design defense is entirely adequate to sustain a summary judgment.[75]

Another case illustrating that compliance with approved standards is persuasive, although not necessarily conclusive, on the question of liability is *Spin Co. v. Maryland Casualty Co.*[76] A backhoe was damaged when its boom struck an overpass on the Garden State Parkway as it was being transported on a tractor-trailer. The State was claimed to have been negligent, because it did not provide an emergency sign or device to warn of the height of the overpass.

The Court held that the highway department was immune from suit for any alleged defect in the plan or design of the overpass under the design immunity provision of the New Jersey statute.[77] The Court's brief opinion appears to give considerable weight to the fact that the overpass was erected in accordance with the minimum clearance standards of the State Highway Department. Not surprisingly, the Court ruled that there was no "emergency" presented by this overpass, and, accordingly, that there was no duty to install an emergency warning device.

As seen, the Courts in the *Moritz v. City of Santa Clara* and *Spin Co. v. Maryland Casualty Co.* cases, *supra,* appear to have been persuaded by the fact that the crosswalk and overpass, respectively, were in compliance with the applicable, approved, highway guidelines at the time of construction.

If the existence of approved or generally recognized guidelines is not established, it seems that matters relating to the design or safety of the highway are even more likely to be committed to the department's discretion.

For example, in *Hughes v. County of Burlington*[78] an accident resulted when a chain of events was set in motion by a motorist who stopped his vehicle on the white line separating two lanes of traffic. It was alleged that the County was negligent, because shoulders had been omitted in designing the highway.

Although the highway had been reconstructed in 1959 in accordance with minimum standards required by the U.S. Bureau of Public Roads, the details of those standards were not discussed in the Court's opinion. The County's expert witness testified that the highway conformed to good engineering practice for roads of this type, size, and traffic volume in New Jersey and elsewhere. The plaintiffs' experts did not dispute the County's contention that the highway met minimum standards for construction of four-lane rural highways for an average hourly volume of 500–1,000 vehicles under the Federal-aid program. The Court held that the County's decision to omit the shoulders was an exercise of discretion that was protected from liability in a tort suit.

In *Warda v. State*[79] two deaths were alleged to have been caused by the construction of a median strip. The decedents' estates contended that a nontraversable barrier, which would deflect an automobile, should have been constructed at this location in order to prevent a vehicle from going into the opposite lane of traffic. There was some evidence that the 1957 "Specifications" called for a beam-type barrier at highway locations such as this one, but those specifications were not made a part of this particular contract.

The Court held that the Authority was not liable:

> At the time of planning and construction, there was [sic] no definite

criteria relating to barriers in effect anywhere in the country. Barriers were then, and still apparently are, in the experimental stage. Since claimants have been unable to show that the New York State Thruway Authority did not use expert advice and good engineering practices in the planning and construction of this section, they have failed in their burden of showing the New York State Thruway Authority to be negligent in failing to erect the type of barrier they claim would have prevented the accident.[80]

The claimants further argued that the Authority had notice of a dangerous condition, because of the number of cross-over accidents at this location, and should have erected a nontraversable barrier. The Court, however, did not concur:

> The small number of accidents, the large volume of traffic and the proper engineering and construction of the roadway, lead this Court to the conclusion that the New York State Thruway Authority has complied with its obligation to provide a reasonably safe roadway for the traveling public. To impose an obligation of guarding against the gross negligence of an operator of a vehicle is not within the purview of the decisions of this state. To do so would force the construction of our highways, not for the use and safety of the reasonably prudent motorist, but solely for the purpose of protecting that motorist from the depredations and negligence of the reckless, careless and drunken operator. . . .[81] This is not to say that the New York State Thruway Authority or the State does not have the continuing obligation to restudy, to redesign and to continually search for better and safer highways and to make those already constructed better and safer when and where needed. It does, but these obligations must be directed, not against the violator, but for the vast law-abiding and reasonable users of our highways.[82]

It should be noted that merely because a plan or design meets minimum standards or comes within the recommended range set forth in an approved manual may not establish conclusively that the department has met its burden of reasonable care. Thus, "mere technical compliance" with a manual is not a substitute for the exercise of reasonable care; the exigencies of the particular highway location must be considered.

That point is illustrated by the decision in *Fraley v. City of Flint,*[83] involving an automobile–truck accident at an intersection. The defendant was alleged to have been negligent in failing to establish adequate traffic light intervals at the intersection so as to permit east–west truck traffic on Pierson Road to clear the intersection before the Clio Road traffic signal turned green. Plaintiff's expert's opinion was that the traffic light's cycle provided too short a notice for an average truck with an average driver to stop. The City argued that it could not be held liable as long as the traffic light cycle was set to fall within the recommended range of time intervals for amber lights found in the MUTCD. The Court did not agree:

> Michigan law imposes a duty upon each governmental agency having jurisdiction over highways to maintain and design them with reasonable care. The range of recommended cycles is too broad to allow mere compliance with it to be deemed reasonable without regard to the peculiarities of the intersection involved. The uniform traffic signal statute and manual cannot be used to shield defendant from its statutory liability.
>
> A municipality is liable for flagrant defects in the design of its highways. Defendant's own witness testified that about 3,000 trucks passed through the intersection each day. The same witness also stated that this truck traffic was not specifically figured into defendant's computations on which the traffic light cycle was based. . . . [P]laintiff's expert's testimony shows that it takes more time and space to stop a truck than it does to stop a car. Yet, defendant ignored this fact and designed the intersection as if it were used exclusively by automobiles. This oversight was so severe as to predispose the intersection to the kind of accident that occurred in the present case. The jury, as the trier of facts, found a flagrant defect in the intersection's design.[84]

The Court in *Tuttle v. Department of State Highways* made the following point:[85]

> The trial court's opinion cites the Michigan Manual of Uniform Traffic Control Devices (1963 ed.), M.C.L.A. § 257.608; M.S.A. § 9.2308, which was heavily relied on by defendant at trial. Plaintiffs concede that the signing was in accordance with the manual. That is, the distance from the edge of the road, the size, reflectorization, etc. of the stop-ahead signs and the stop signs, as well as their installation were in accordance with the manual. Plaintiffs urge that following the manual does not necessarily satisfy the legal duty to maintain the highways in a condition reasonably safe and fit for travel.
>
> We readily agree. However, we find that the trial court met the standard of *Fraley v. City of Flint,* 54 Mich. App. 570, 221 N.W.2d 394 (1974), and did not allow the defendant to use Manual standards as a shield for failure to meet the "reasonableness" test.

In sum, it appears that if the highway is constructed in accordance with applicable guidelines at the time of construction that fact is persuasive, but not conclusive, evidence that the highway agency has not acted negligently. However, it may be noted that "mere technical compliance" is not adequate to shield the department and that the exigencies of the highway location must be considered in the application of appropriate guidelines.

Highways Not In Compliance With Guidelines

If the highway is not constructed in accordance with approved guidelines, that fact appears also to be persuasive in determining whether the department is negligent.

Absence of compliance has been alleged frequently in cases involving the MUTCD; see, for example, the following: *Grubaugh v. City of St. Johns,* 82 Mich. App. 282, 266 N.W.2d 791 (1978); *Verik v. State, Dep't. of Highways,* 278 So. 2d 530 (La. App. 1973); *Quinn v. United States,* 312 F. Supp. 999 (E.D. Ark. 1970); *Mullins v. Wayne Co.,* 16 Mich. App. 365, 168 N.W.2d 246 (1969); *Jorstad v. City of Lewiston,* 93 Idaho 122, 456 P.2d 766 (1969); *State v. Watson,* 7 Ariz. App. 81, 436 P.2d 175 (1968); *Fraley v. City of Flint,* 54 Mich. App. 570, 221 N.W.2d

394 (1974); *Tuttle v. Dept. of State Highways,* 60 Mich. App. 642, 231 N.W.2d 482 (1975); and *McDevitt v. State,* 1 N.Y.2d 540, 136 N.E.2d 845 (1956).

As noted earlier other cases have involved "nationally recognized standards" concerning the design of highway and railroad crossings (*Boston and Maine Railroad v. Talbert,* 360 F.2d 286, 290 (1st. Cir. 1966)) or publications known as *Minimum Design Policies for Federal Aid Secondary Highways, County and Road District Roads: General Requirements,* and *Design Policies for Federal Aid Secondary Highways, County and Road District Roads: Geometric Requirements* (*American State Bank v. County of Woodford,* 55 Ill. App. 3d 123, 371 N.E.2d 232 (1977)).

However, the question of compliance with guidelines may arise in cases involving highways that fail to meet contemporary, more stringent standards.

The general rule appears to be that, absent notice of a dangerous condition or "changed circumstances," the highway department has no general duty to upgrade or rebuild highways merely because the standards or criteria have been revised or made more stringent.

For example, in *Kaufman v. State* [86] the Court stated:

> Although by today's enlightened criteria the road would possibly not be properly constructed, it is readily evident that it did comply with the standards applicable when it was planned and built in 1911 and the State was not required to rebuild the road at this point, a major undertaking according to the testimony, unless the curve could not be negotiated at a moderate speed.

In *McDevitt v. State* [87] the plaintiffs alleged that the State was negligent in providing proper road signs because they did not conform to the present MUTCD. The Court held that the highway signs, which were installed prior to the Manual then in effect, conformed to the rules and regulations when erected, were in good serviceable condition at the time of the accident, and provided adequate warning to the reasonably careful driver.

Whether the highway should be improved or upgraded appears to be largely a decision vested in the discretion of the appropriate governmental body, unless there is notice of a dangerous condition or "changed circumstances." The immunity of public agencies, which exists in most jurisdictions either by statute or judicial decision, for the exercise of functions that are discretionary in nature is predicated on the belief that the Courts should not interfere in certain areas committed to executive agencies with special expertise. The Courts are reluctant to second-guess policy decisions of executive offices which have special expertise on matters for which they are responsible.

That judicial policy is reflected in *City of Louisville v. Redmon.*[88] The *Redmon* case involved an allegedly defective design of a street and underpass, which the Court found was built "in accordance with the universally adopted and approved plans and specifications of like streets and underpasses" approximately 25 years prior to the accident.

The Court held:

> Unless the plan that they [the town council] adopted is one so obviously dangerous as would show a failure to consider or a purpose to misconstruct the work, the judgment of the governing body of the town as to the plan is conclusive.[89]

The Court ruled that if the street was not negligently constructed, had not become defective from wear or injury or other cause, and remained

> in the identical condition in which the same was constructed, the propriety of reconstructing the same must be left to the discretion of the governing authority of the city, giving the benefit of the doubt to the city.[90]

In a more recent case, it was held that it was not necessary to install guardrails at certain highway locations although the standards had changed since the design of the highway. In that case, *Martin v. State Highway Comm'n,*[91] the State had participated in a federally funded program to identify and upgrade hazardous locations.

The plaintiff was a passenger in a vehicle that left the road and wrapped itself around the first pier supporting an Interstate overpass. The sole question on appeal was whether the absence of a guardrail protecting this particular pillar constituted a "defect" in the highway within the meaning of the Kansas "highway defect" statute.

In this case there was no claim that the bridge or intersection had deteriorated in any way; thus, any alleged defect related entirely to the design.

One of the plaintiff's arguments that this was a defective location was based on Kansas' participation in a federal program to upgrade highway safety. One feature of this program was the installation of guardrails at certain locations.

Although the location of this accident was not included on the State's inventory of hazardous locations (prepared and submitted as a first step to obtain federal funds), the State, in fact, had contracted for the installation of guardrails at 59 locations on I-70 in Shawnee County, including the intersection where the accident occurred. (Guardrails were installed at this location several months after the accident.)

The plaintiff argued that the existence of this program and the absence of guardrails at this location established that the highway was defective. The Court, however, held that Kansas' participation in this program to upgrade the safety of its highways did not mean, *ipso facto,* that this intersection was defective:

> The real thrust of the evidence was to show that the absence of the guardrails was recognized by the commission as hazardous, and thus defective. But, as pointed out above, changing standards and wholly laudable efforts to improve the safety of our highways does not make "defective" that which has long been considered adequate. The practical problems raised by the development of improved designs were commented on in *Dunlap v. Lawless,* supra, where 3 by 10 inch planks on an old bridge formed tracks across it. The court there said: "This point goes to the design and construction of the bridge itself. It may be argued that if the

bridge were to be built new at the present time, such tracks would not be used. But such bridges are not uncommon in Kansas. It would be an intolerable financial burden for the already hard-pressed taxpayers of a county to be required to alter or replace all steel and wood bridges of similar design simply because newer and better designs were used in the construction of bridges today." (192 Kan. at 689, 391 P.2d at 73.)

In that case, had the county commissioners embarked on a long range plan to modernize all bridges so constructed, that decision would not have rendered such bridges *ipso facto* defective. Similarly, in this case the decision to upgrade the Kansas highway system did not render "defective" those portions which the program had not yet reached.[92]

It was not established in *Martin v. State Highway Comm'n, supra,* that the intersection was manifestly dangerous or violated any mandatory standard or statute pertaining to the design of the highway when it was constructed. The State's recognition of needed safety features and the decision to upgrade the existing highways, standing alone, were not sufficient to establish that the highway was defective.

The result may be different if the plaintiff is able to show that the highway agency is on notice that a highway, though originally properly planned, has become dangerous in actual use because of "changed circumstances." Some courts have held that the State has the duty to review the design of a highway after it is in use in order to determine whether it is still safe.[93] Thus, a duty may arise, once the highway department has notice of an unsafe location because circumstances or conditions there have changed, to upgrade the highway to current standards.

In a situation involving "changed circumstances," contemporary design and safety standards may be relevant to show what action, if any, should have been taken by the department in order to exercise due care. Although standards were not discussed in *Baldwin, supra,* the Court noted:

> In many cases, inexpensive remedies, such as warning signs, lights, barricades or guardrails, will be sufficient [to remedy the condition]. In the case at bench, for example, simply erecting a barrier to prohibit left turns by northbound motorists at the Hoffman-Central Intersection would have prevented plaintiff's accident.[94]

In *Harland v. State,*[95] involving an accident on a bridge, it appeared that the bridge was defective when built and that traffic and other conditions had "materially changed" in the eight years between the date of the opening of the bridge and the date of the accident.[96] The decision, affirming a judgment in excess of three million dollars against the State, noted that there was expert testimony that the bridge should have been, but was not, built in accordance with freeway standards.

The Court held that, although the evidence was conflicting, there was evidence from which the jury could reasonably have found the existence of a dangerous condition:

> Respondents' expert witness testified that in light of the high speed and volume of traffic on the bridge, *the bridge should have been but was not built according to freeway standards.* The south end of the bridge was introduced by a superelevated S-curve. The accident in fact occurred on the curve. There was expert testimony that the use of a curve on the bridge itself was dangerous and contrary to sound engineering practice.
>
> There was also evidence that, because of the height of the bridge, the high volume of traffic and frequent gusts of high wind on the bridge, the shoulder and median areas were too narrow for safe travel. Respondents' expert testified that the height of the bridge roadway is an intimidating factor to some drivers and that wider shoulders aid persons who fear driving in the air near railings. . . . Edgman's car was deflected by the guardrail across a roadway which was not protected by a median barrier. The metal guardrail installed on the sides of the bridge was of a design that projected the Edgman vehicle across the highway into the path of oncoming traffic. A state report on the collision stated that: "The action of October 25th, 1970, might possibly have been avoided, if the metal beam barrier first hit by Vehicle No. 1 had been of a different design, so that it did not rebound into traffic." Thus, the jury could reasonably have inferred that respondents' maintenance of a dangerous condition was a proximate and contributing cause of the accident.[97] (Emphasis supplied.)

Although not involving changed circumstances, the case of *Breivo v. City of Aberdeen*[98] is an example of a public agency held liable where the use of a barrier was in violation of contemporary safety standards.

An accident occurred when a vehicle, traveling at an excessive rate of speed, collided with a solid barrier that had been erected by the City to protect a "breakaway" light standard located directly behind the barrier.[99]

The street was originally constructed in 1954, and the City thereafter had erected the light standard. The light standard was of the "breakaway" variety and was designed to "break-off" if hit by a vehicle traveling 20 miles per hour or more. In 1964 the City electrician and traffic engineer ordered the barrier to be constructed in front of the light standard to prevent it from being "knocked down." The barrier was so sturdy that the vehicle, traveling at 50 to 80 miles per hour, failed to move it.

In 1966 the State's district traffic engineer requested that the City remove the barrier for two reasons. First, as a fixed object located less than 8 feet from a through lane of traffic its use was contrary to contemporary highway safety guidelines. Second, it was erected on the exterior portion of a curve in the general path that a car would follow in the event the motorist lost control of the vehicle.

Highway safety standards issued by the American Association of State Highway and Transportation Officials (AASHTO) were admitted at trial as evidence of the City's failure to exercise reasonable care at this site. The Court held that the City was liable as a matter of law:

> We do not believe that reasonable minds could reach any conclusion other than that the city was palpably negligent in erecting a solid, immovable barrier in such a location. Any potential benefit which could be derived from erecting a breakaway light standard was entirely negated by such action. The city acted in total disregard for the safety of those using its public highways, and in so doing failed as a matter of law "to exercise ordinary care to keep its public ways in a reasonably safe condition for

persons using them in a proper manner and exercising due care for their own safety." [100]

In sum, it appears that the fact that newer, more stringent, design or safety standards may be issued after a highway is planned and constructed does not mean that the highway department must undertake to improve or upgrade the highway. On the other hand, even as to existing highways contemporary standards may be relevant as a factor in determining liability when there is a change in circumstances or the State's actions are "palpably" negligent.

GUIDELINES APPLICABLE TO MAINTENANCE

There are several reported decisions involving actions against highway departments where the plaintiff's claim of negligence rested in part on a showing that the department had not followed its own procedures. In the two cases discussed below, the courts appear to have given considerable weight to the violation of departmental procedures in holding that the State was negligent.[101]

In *State v. Abbott* [102] the plaintiff, while attempting to negotiate a curve, lost control of her vehicle and collided with a truck. At trial she introduced certain provisions of the department's Standard Operating Procedures (S.O.P.), which required

> the Department of Highways to (1) maintain superelevations on curves, (2) eliminate ruts prior to freezeups, and (3) work overtime if necessary to keep sharp curves well sanded.[103]

Although the State contended that its procedures were followed, the trial court was convinced by the plaintiffs' evidence that they were not followed at this particular curve and that the "failure to comply with the S.O.P.'s would seem to be operational negligence rather than policy-making discretion." [104]

A significant decision on this subject is *Hunt v. State.*[105] The case involved a skidding accident on a frost-covered bridge that had not been sanded or salted. Briefly, the motorist was on his way duck hunting on a calm, clear morning at approximately 6:20 a.m. Before reaching a bridge on an Interstate highway, Hunt had not observed any unusual road surface conditions. When he was approximately two car lengths onto the bridge, his car skidded to the right, went out of control, and overturned in the median. An investigating police officer, on ariving at the scene, observed that the bridge surface was icy and had not been sanded or salted.

At the time of the accident, a highway maintenance manual, which contained policies and procedures for use by departmental personnel, was in effect. The manual contained a section on the actions that were to be taken when it was anticipated that frost would form on bridge floors. The section described the conditions under which frost was likely to form, set forth "rules of thumb" for forecasting frost, directed that certain procedures be followed in order to obtain weather forecast data, and stated that "where there is frost on bridge floors be sure to treat the bridge floors with salt or abrasives." [106] The procedure admittedly was not followed.

The Court made two important holdings: first, the State had constructive notice of the condition of the bridge because of the existence of the provision in the manual and the weather forecast data, which had indicated conditions favorable for frost between the hours of midnight and 7:00 a.m. on the day of the accident. Thus, the Court held:

> Substantial evidence was adduced to show the procedure was applicable and was violated. In addition, substantial evidence was received supporting the trial court's finding that violation of the procedure was a proximate cause of Hunt's accident. If the maintenance personnel had used the procedure, they would have known of the probability of frost and could have taken timely measures to eliminate the danger. *Availability of the procedure coupled with weather conditions favorable to frost gave the Commission constructive notice of the hazard in time to guard against it or eliminate it.*
>
> The existence of the maintenance procedure is itself evidence the State knew frost conditions are predictable.[107] (Emphasis supplied.)

The second holding, closely related to the first, was:

> We have held violation of such a procedure is evidence of negligence: . . . Pertinent portions of the maintenance manual of the Iowa State Highway Commission are in evidence. . . . The violation of such a safety code is evidence of negligence. *Ehlinger v. State,* supra, 237 N.W.2d at 788 [Iowa 1976].[108]

The Court held that the violation of the manual and the other evidence of negligence, such as the failure to make a visual inspection, were sufficient to establish the State's negligence.[109]

SUMMARY AND CONCLUSIONS

As seen, there is a wide variety of standards, specifications, policies, guidelines, and references applicable to the design and safety of highways. In addition, highway departments have established procedures governing proper maintenance. These guidelines may be important in cases involving liability of highway agencies for negligence.

Standards, guidelines, and the like, which have the force and effect of law, are admissible in evidence. Moreover, those guidelines not having force of law that are sponsored by governmental or nongovernmental associations also may be admissible. The recent trend favors the admission of guidelines, assuming they are relevant and the proper foundation is established. Even if a guideline is not admissible as direct evidence in a jurisdiction, it may be used for a limited purpose, for example, impeachment during cross examination.

If admitted, the guideline ordinarily is evidence of the standard of care that the highway agency should have followed. Thus, relevant guidelines, even those not having the force of law, may be admitted in evidence and considered together with all other pertinent facts and circumstances to determine the issue of liability. In some instances, as explained, the violation of a standard or guideline may constitute negligence *per se.*

Although highway departments, by statute or judicial decision, may have immunity for design functions, there are, as noted, several signifi-

cant exceptions. Thus, depending on the circumstances, a design or safety guideline may be relevant in determining whether the department has met its standard of care.

Few decisions seemingly have involved highways that are constructed in compliance with contemporary guidelines. What little decisional law there is indicates that compliance with recognized or generally accepted guidelines is very persuasive. On the other hand, mere compliance with guidelines without an adequate consideration of the particular highway location will not absolve the department of alleged negligence.

The issue of guidelines often arises in cases involving highways that fail to meet contemporary, more stringent standards. The cases generally hold, however, that there is no general duty to upgrade or rebuild highways merely because the standards or criteria have been revised. The rule most often applied is that the highway is to be judged by the guidelines in force at the time it was constructed. Newer guidelines, of course, may be quite relevant in cases involving "changed conditions." A flagrant violation of a contemporary guideline, amounting to what might be called gross negligence, also may result in liability.

In several cases involving alleged negligent maintenance, claimants have successfully used departmental maintenance procedures to show, for example, that the department had, or should have had, notice of the defective highway condition or to establish the degree of care that the department should have exercised.

[1] Viner, "Vehicle Downsizing and Roadside Safety Hardware," *Public Roads,* Vol. 44, No. 1, FHWA, Washington, D.C. (June 1980) p. 1.

[2] *Id.* at 1–2.

[3] *Id.* at 8.

[4] See *Selected Studies in Highway Law,* "Tort Liability," Vol. 3, Ch. VIII, pp. 1771–1966.

[5] See *id.* at 1822 and 1834–S13.

[6] *Id.*

[7] *Id.*

[8] Stuart-Bullock v. State, 38 A.D.2d 626, 326 N.Y.S.2d 909, 913 (1971).

[9] Baker v. Ives, 162 Conn. 295, 294 A.2d 290, 293 (1972).

[10] Meabon v. State, 1 Wash. App. 824, 463 P.2d 789 (1970).

[11] Annot., *Liability of Governmental Entity or Public Officer For Personal Injury or Damages Arising Out of Vehicular Accident Due to Negligent or Defective Design of a Highway,* 45 A.L.R.3d 875, 881 (1972).

[12] *Id.* at 893.

[13] 23 C.F.R. § 625.1, *et seq.*

[14] A "nationally recognized standard" is one that is recognized or adopted in at least a majority of the states. Johnson v. Roberts, 269 S.C. 119, 236 S.E.2d 737, 740 (1977).

[15] *Id.*

[16] *See, e.g.,* Florida [FLA. STAT. ANN. § 316.0745]; Illinois [ILL. STAT., ANN. tit. 95-1/2, § 11-301]; Michigan [MICH. STAT. ANN. § 9.2308]; New York [Consol. L. N.Y. VEHICLE AND TRAFFIC LAW § 1680]; Ohio [OH. REV. CODE § 4511.09]; and Texas [TEX. CIV. STAT., art. 6701d, § 29].

[17] Grubaugh v. City of St. Johns, 82 Mich. App. 282, 266 N.W.2d 791 (1978).

[18] *See* Lemery v. O'Shea Dennis, Inc., 291 A.2d 616 (N.H. 1972), holding that codes are absolute standards where they have been incorporated in statutes and ordinances; Jenkins v. Starrett Corp., 13 N.C. App. 437, 186 S.E.2d 198 (1972), holding that adoption by the legislature gives the standard or guideline the force and effect of law, thus making it admissible in evidence.

[19] See note, *Admissibility of Safety Codes, Rules, and Standards in Negligence Cases,* 37 Tenn. L. Rev. 581, 584 N. 30 (1970); Grubaugh v. City of St. Johns, 82 Mich. App. 282, 266 N.W.2d 791 (1978) (Court affirmed the trial court's ruling admitting the MUTCD, promulgated pursuant to M.C.L.A. § 257.608, MSA § 9.2308); *see also* Chart v. Dvorak, 57 Wisc. 2d 92, 203 N.W.2d 673 (1973); Waits v. St. Louis-San Francisco Ry. Co., 216 Kan. 160, 531 P.2d 22 (1975); Dowen v. State, 174 N.Y.S. 2d 849 (1958); Fraley v. City of Flint, 221 N.W.2d 394 (Mich. App. 1974); Verik v. State, Dep't. of Highways, 278 So. 2d 530 (La. App. 1973); Quinn v. United States, 312 F. Supp. 999 (E.D. Ark. 1970); Mullins v. Wayne Co., 16 Mich. App. 365, 168 N.W.2d 246 (1969); Jorstad v. City of Lewiston, 93 Idaho 122, 456 P.2d 766 (1969).

[20] *See* Annot., *Admissibility in Evidence of Rules of Defendant in Action for Negligence,* 50 A.L.R.2d 16 (1956).

[21] 7 Ariz. App. 81, 436 P.2d 175 (1967).

[22] 436 P.2d at 180.

[23] *See* Annot., *Admissibility in Evidence, on Issue of Negligence, of Codes or Standards of Safety Issued or Sponsored by Governmental Body or by Voluntary Association,* 58 A.L.R.3d 148 (1974).

[24] *Id.* at 154.

[25] Muncie Aviation Corp. v. Party Doll Fleet, Inc., 519 F.2d 1178, 1183 (5th Cir. 1975).

[26] 519 F.2d 1178 (5th Cir. 1978).

[27] *Id.* at 1180.

[28] Safety codes may also be admissible under the "residual" exception to the hearsay rule under Rule 803(24): *"Other exceptions.* A statement not specifically covered by any of the foregoing exceptions but having equivalent circumstantial guarantees of trustworthiness, if the court determines that (A) the statement is offered as evidence of a material fact; (B) the statement is more probative on the point for which it is offered than any other evidence which the proponent can procure through reasonable efforts; and (C) the general purposes of these rules and the interests of justice will best be served by admission of the statement into evidence. However, a statement may not be admitted under this exception unless the proponent of it makes known to the adverse party sufficiently in advance of the trial or hearing to provide the adverse party with a fair opportunity to prepare to meet it, his intention to offer the statement and the particulars of it, including the name and address of the declarant."

[29] 519 F.2d at 1182–1183.

[30] 609 F.2d 820 (5th Cir. 1980); *see also* Frazier v. Continental Oil Co., 568 F.2d 378, 381–384 (5th Cir. 1978) (National Fire Protection Association Code); Gordy v. City of Canton, 543 F.2d 558, 564, *reh. den.* 545 F.2d 1298 (5th Cir. 1976). (Admitting testimony of an expert witness relating to the National Electrical Safety Code was not improper under F.R.E. 803 (18)).

[31] 609 F.2d at 822.

[32] 42 N.J. 274, 200 A.2d 116 (1964).

[33] 200 A.2d at 120–121.

[34] 360 F.2d 286, 290 (1st Cir. 1966).

[35] Alaska: ALAS. RULES OF EVIDENCE, Rule 803(18)(1979); Arizona: ARIZ. REV. STAT. ANN. RULES OF EVIDENCE, Rule 803 (18)(1977); Arkansas: ARK. STAT. ANN. § 28-1001 UNIFORM RULES OF EVIDENCE, Rule 803(18)(1979); Colorado: COLO. RULES OF EVIDENCE, Rule 803(18)(1980); Delaware: DEL. UNIFORM RULES OF EVIDENCE, Rule 803(18)(1980); Minnesota: MINN. STAT. ANN. EVIDENCE RULES, Rule 803(18)(1979); Montana: MONT. REV. CODES ANN. § 93-3002, RULES OF EVIDENCE, Rule 803(18)(1977); North Dakota: N.D. RULES OF EVIDENCE, Rule 803(18)(1977); Oklahoma: OKLA. STAT. ANN., tit. 12, § 803(18)(1978); South Dakota: S.D. RULES OF EVIDENCE, § 19-16-21 (Supp. 1978); Washington: WASH. RULES OF EVIDENCE, Rule 803 (18)(1979); Wyoming: WYO. RULES OF EVIDENCE, Rule 803(18) (1978). The following states have adopted a variation of Rule 803(18): Maine: ME. REV. STAT. ANN. MAINE RULES OF EVIDENCE, Rule 803(18) (Supp. 1978) [departed from Federal Rule by not admitting learned treatise on direct examination]; Michigan: MICH. RULES OF EVIDENCE, Rules 707, 803 (18)(1978) [placed substance of Federal Rule 803(18) in its Rule 707, and wrote a new hearsay exception for deposition testimony of an expert as subdivision 803(18)]; New Mexico: N.M. STAT. ANN. RULES OF EVIDENCE, RULE 803(18)(1978) [adopted Final Draft version of Federal Rule]; Nevada: NEV. REV. STAT., tit. 4 § 51.255 (1977) [adopted Preliminary Draft version of the Federal Rule]; Wisconsin: WIS. STAT. ANN. § 908.02 (Cum. Supp. 1979), [adopted the more permissive Model Code

Rule 529 as its Rule 803(18), which allows learned treatises to come in as substantive evidence independent of expert testimony].

[36] 58 A.L.R.3d at 156.

[37] 4 J. Weinstein & M. Berger, *Evidence*, § 803(18) [03] at 803-260 (1979).

[38] 4 D. Louisell & C. Mueller, *Federal Evidence*, § 466, at 838 N. 61 (1980).

[39] 58 A.L.R.3d at 156. *See* Hercules Powder Co. v. DiSabatino, 55 Del. 516, 188 A.2d 529 (1963); Robinson v. Whitley Moving & Storage, Inc., 246 S.E.2d 839 (N.C. App. 1978).

[40] Of course, use of the materials in some states might be limited to testing the knowledge of an expert during cross-examination.

[41] 58 A.L.R.3d at 154.

[42] 42 N.J. 274, 200 A.2d 116, 121 (1964).

[43] 7 Ariz. App. 81, 436 P.2d 175 (1967).

[44] 436 P.2d at 180.

[45] 55 Ill. App. 3d 123, 371 N.E.2d 232 (1977).

[46] The instruction to the jury was as follows: "There was in force in the State of Illinois at the time of the occurrence in question certain standards passed by the Department of Transportation of the State of Illinois which provided minimum design policies as follows:

> (1) A minimum required width of 20 feet of road surface with 2 feet shoulders on each side for the lowest class of county road;
>
> (2) A minimum required width of 16 feet of road surface with 2 feet shoulders on each side for the lowest class of township road;
>
> (3) Upon the lowest class of county road a design speed of at least 30 miles per hour with minimum stopping sight distance of 200 feet and minimum passing sight distance of 1100 feet.

If you decide that a party violated these standards on the occasion, then you may consider that fact together with all the other facts and circumstances in evidence in determining whether or not a party was negligent before and at the time of the occurrence." 371 N.E.2d at 237.

[47] 371 N.E.2d at 238.

[48] 69 Cal. 2d 472, 72 Cal. Rptr. 321, 446 P.2d 129, 134 (1968).

[49] 446 P.2d at 134, n.3

[50] See generally 446 P.2d 129.

[51] 82 Mich. App. 282, 266 N.W.2d 791 (1978).

[52] 266 N.W.2d at 795.

[53] 7 Ariz. App. 81, 436 P.2d 175, 180 (1968).

[54] *See* note 20, *supra*. *See also*, State v. Abbott, 498 P.2d 712 (Alas. 1972); Kaatz v. State, 540 P.2d 1037 (Alas. 1975); and Hunt v. State, 252 N.W.2d 715 (Iowa 1977).

[55] PROSSER, THE LAW OF TORTS (4th ed.), § 36, at 190–200.

[56] *Id.* at 190–192.

[57] *Id.* at 200–201.

[58] 93 Idaho 122, 456 P.2d 766 (1969).

[59] 456 P.2d at 772.

[60] *Id.* at 773–774.

[61] *Compare*, however, Grubaugh v. St. Johns, 82 Mich. App. 282, 266 N.W.2d 791 (1978), discussed at note 51, *supra*.

[62] *See* Verik v. State, Dept. of Highways, 278 So. 2d 530 (La. App. 1973); Quinn v. United States, 312 F. Supp. 999 (E.D. Ark. 1970); and Mullins v. Wayne Co., 16 Mich. App. 365, 168 N.W.2d 246 (1969).

[63] 45 A.L.R.3d at 885.

[64] *See* note 5, *supra*.

[65] CAL. GOV'T CODE § 830.6.

[66] *See* Comments, CAL. GOV'T CODE § 830.6.

[67] The Court in Anderson v. City of Thousand Oaks, 65 Cal. App. 3d 82, 135 Cal. Rptr. 127 (1976) held that in order for the State to claim immunity under the statute it must show: (1) that the design had a "causal relationship" with the accident; (2) that the appropriate body or individual exercising discretionary authority had approved the plan or the standards; and (3) that there is substantial evidence supporting the reasonableness of the plan or the standards. *See also* Fraley v. City of Flint, 54 Mich. App. 570, 221 N.W.2d 394 (1974).

[68] *See* Weiss v. Fote, 7 N.Y.2d 579, 167 N.E.2d 63, 200 N.Y.S.2d 409 (1960).

[69] *See* Comment, 1972, N.J. STAT. ANN., tit. 59, § 4-6.

[70] 6 Cal. 3d 424, 491 P.2d 1121, 99 Cal. Rptr. 145 (1972). It should be noted that since the *Baldwin* decision, § 830.6, *supra*, was amended in 1979 to add the second, third, and fourth sentences.

[71] 491 P.2d at 1127.

[72] *See* note 68, *supra*.

[73] 8 Cal. App. 3d 573, 87 Cal. Rptr. 675 (1970).

[74] 87 Cal. Rptr. at 676.

[75] *Id.* at 677.

[76] 136 N.J. Super. 520, 347 A.2d 20 (1975).

[77] N.J. STAT. ANN., tit. 59, § 4-6.

[78] 99 N.J. Super. 405, 240 A.2d 177 (1968).

[79] 45 Misc. 2d 385, 256 N.Y.S.2d 1007 (1964).

[80] 256 N.Y.S.2d at 1010. *Compare* Harland v. State, 75 Cal. App. 3d 475, 142 Cal. Rptr. 201 (1977), and Ducey v. Argo Sales Co., 602 P.2d 755, 159 Cal. Rptr. 835 (1979).

[81] 256 N.Y.S.2d at 1010.

[82] *Id.* at 1011.

[83] 54 Mich. App. 570, 221 N.W.2d 394 (1974).

[84] 221 N.W.2d at 397.

[85] 60 Mich. App. 642, 231 N.W.2d 482, 485 (1975).

[86] 27 A.D.2d 587, 275 N.Y.S.2d 757, 758 (1966).

[87] 1 N.Y.2d 540, 136 N.E.2d 845 (1956).

[88] 96 S.W.2d 866 (Ky. App. 1936).

[89] *Id.* at 868.

[90] *Id.* at 869.

[91] 518 P.2d 437 (Kan. 1974).

[92] *Id.* at 445.

[93] *See, e.g.*, Weiss v. Fote, 7 N.Y.2d 579, 167 N.E.2d 63, 200 N.Y.S.2d 409 (1960); and King v. State, 370 N.Y.S.2d 1000, 1004 (1975).

[94] 99 Cal. Rptr. at 154.

[95] 75 Cal. App. 3d 475, 142 Cal. Rptr. 201 (1977).

[96] 142 Cal. Rptr. at 207, n. 3.

[97] 142 Cal. Rptr. at 206–208. There was also evidence that the Highway Patrol had recommended that the speed limit on the bridge be lowered and that a median barrier be installed. *Id.* at 207.

[98] 15 Wash. App. 520, 550 P.2d 1164 (1976).

[99] It should be noted that the Court held that the fact that the driver of the vehicle failed to exercise due care for his own safety, or that of his passengers, "has no bearing whatsoever on the issue whether the state breached its duty to maintain the highway." 550 P.2d at 1167.

[100] 550 P.2d at 1169.

[101] *See also* note 20, *supra*.

[102] 498 P.2d 712 (Alas. 1972).

[103] *Id.* at 716.

[104] *Id.* at 722, note 30. *In* Kaatz v. State, 540 P.2d 1037, 1043 (Alas. 1975) in which the S.O.P.'s were cited, the Court noted: "Certainly the spirit, if not the letter of this regulation, was not complied with."

[105] 252 N.W.2d 715 (Iowa 1977).

[106] *Id.* at 719.

[107] *Id.*

[108] *Id.*

[109] *Id.* at 720.

APPLICATIONS

The foregoing research should prove helpful to highway and transportation administrators, their legal counsel, and engineers responsible for the design, construction, maintenance, and operation of facilities. Officials are urged to review their practices and procedures to determine how this research can effectively be incorporated in a meaningful way. Attorneys should find this paper especially useful in their work as an easy and concise reference document in tort litigation cases.

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