Chemistry, Courtrooms, and Common Sense

Part II: Negligence and Other Theories of Liability

J. Ric Gass
Kasdorf, Lewis & Swietlik, S. C., 1551 South 108th Street, Post Office Box 44200, Milwaukee, WI 53214

How Is Negligence Established or Rebutted?

In Part I of this manuscript (*1*) the topics of Negligence and Duty were discussed. In the second part further aspects of chemistry and the law will be examined.

In some cases a jury can decide a case purely on factual testimony. For example, an inadvertent spill of a bottle of acid on another is a human action within the jury's common knowledge, and they have sufficient experience to judge the action as within or without the realm of ordinary care.

However, as the actions under consideration become more specialized and outside a jury's ordinary experience, the jury needs assistance. The attorneys provide this by acquainting the jurors with state and federal regulations applicable to the laboratory. Similarly, any applicable codes or standards promulgated by societies related to the laboratory field in question are also given to the jury. Pertinent text and treatise material is likewise available. Lastly, other scientists in the field are called upon to educate the jury on what constitutes ordinary care and to offer their opinions on the quality of care in the specific incident. For example, in *Brigham Young University v. Lilly White* (*2*), an 18-year old college student, participating in her second semester of chemistry, inadvertently mixed potassium chlorate with red phosphorous, despite her use of an instruction manual and the fact that her professor had demonstrated the identical experiment in her first semester class. The student's mistake was made while the professor was momentarily absent from the room. When the mixture was heated an explosion occurred. The plaintiff, at trial, presented two professors who testified that, in their opinion, professors should not leave the classroom during experiments and, further, that the individual instructor should check each student's setup for the experiment before the student may proceed. Both instructors, however, stated it was impossible to verify that the students had used the proper substances and that in this respect the instructors must depend upon the students. Despite these latter statements, the Court affirmed the jury's finding of negligent supervision.

In some instances courts have inferred negligence even where the precise cause of the accident could not be determined. For example, in *Damgaard v. Oakland High School District* (*3*), it was held that liability could be imposed where the exact cause of an explosion could not be determined but that such would not ordinarily occur unless there was improper equipment or combustible matter in the test tubes.

One question that is bothersome to scientists is the effect of state regulations and OSHA regulations in lawsuits of this nature, and whether they can be used to prove negligence. Regulations, state or federal, if applicable, become evidence of reasonable care. They are not dispositive, one way or the other, but are evidence the jury may use in determining whether the defendant acted reasonably or not. Such regulations are also applicable to the safe place duties in determining whether the lab owner has failed to make the place and employment as safe as they reasonably permit. Similarly, standards of any organization, such as the American Chemical Society, concerning safety in general or the specific activity involved are not dispositive but evidence that can be used to show negligence or the exercise of ordinary care.

Contributory Negligence

The concepts of negligence, reasonable action and ordinary care do not apply solely to educators. As previous cases have illustrtated, these rules of law also apply to students or third persons whose actions have contributed to the accident or constitute intervening and superseding causes of the injuries. Equally as important, however, is that these same concepts apply equally as well to the injured student as plaintiff.

Negligence on the part of the plaintiff is known as contributory negligence. This is a failure on the part of the student to act as a child of similar age, capacity, discretion, knowledge, and experience would act under the same or similar circumstances. In some jurisdictions reference is also made to what is referred to as "assumption of risk". This concept means that the child, as evidenced by his or her conduct, assumed the risk associated with his or her acts, or the acts of others, under circumstances in which he or she knew or should have known such conduct was in disregard for his or her own safety. In some jurisdictions assumption of risk is but evidence to support a finding of contributory negligence, while in others it is viewed as a separate and distinct concept.

The effect a plaintiff's contributory negligence will have on the success of his or her lawsuit varies from state to state. Jurisdictions have applied the concept in two general ways. The first and older means is to bar the plaintiff completely from recovering any damages if he or she is found even 1% contributorily negligent. The second group of jurisdictions are known as the "comparative negligence" states. This modern concept attempts to ameliorate the harshness of the older rule and, instead, seeks to impose upon the parties that percentage of negligent conduct attributable to each of them.

Within the comparative negligence states two types of comparative negligence have emerged, each with its own result. The more recent and minority view is known as "pure" comparative negligence. In jurisdictions adopting this approach each defendant must compensate the plaintiff to the extent of whatever percentage of negligence is attributed to that defendant. Therefore, assuming there is one defendant and his negligence is 1%, while the plaintiff's contributory negligence is found to be 99%, that defendant must pay 1% of the plaintiff's damages. In "strict" comparative negligence states, however, the plaintiff recovers only if his contributory negligence is equal to or less than the amount attributed to the defendant. Thus, assuming one defendant, if the plaintiff is found to be 50% contributorily negligent and the defendant 50% negligent, the plaintiff recovers 50% of his damages. However, if in the same case the plaintiff had been found 51% at fault, with the defendant being 49% negligent, he would have recovered nothing. Multiple defendants are merely additional parties to whom part of the 100% must be attributed. For example, if there are two defendants, one being 20% negligent and the other being 50%

negligent, with the plaintiff being 30% contributorily negligent, the plaintiff cannot recover from the defendant whose negligence is less than his own. However, he can recover 70% of his damages from the remaining defendant even though that individual's negligence was only assessed at 50%. Other complexities arise if any of the parties are immune from suit or unable to pay their share of damages, which are not encompassed within this writing.

The question of the student's contributory negligence is presented in most laboratory accidents. For example, in the New York case of *LaPorte v. Board of Education of Greater Amsterdam School District* (*4*), where contributory negligence was a complete defense, the plaintiff was barred from recovering when she accidentally spilled sulfuric acid upon herself.

Whether or not a child is guilty of contributory negligence or has assumed the risk is dependent upon the facts and circumstances of the individual case. As such, it is a question for the jury to answer (*5*, *6*).

In contrast to the above cases are those in which it has been held, as a matter of law, that the student's actions were so clearly negligent that the student was contributorily negligent and, thus, the question would not be submitted to the jury (*7–10*).

Strict Liability

Within recent decades an additional theory of liability, known as strict liability, has developed that imposes liability upon manufacturers and sellers of products, such as those manufacturing or selling laboratory glassware, reagents, or equipment of any kind. Rather than examining an individual's conduct, this theory of liability focuses upon the product that is alleged to have caused injury, such as a beaker that explodes without misuse. Although there is some variation among individual jurisdictions, generally the following elements must be shown:

1. the product was defective
2. that such defective condition made the product unreasonably dangerous,
3. that such conditions existed at the time the product left the defendant's control, and
4. that the product was expected to and did reach the consumer without substantial change in such condition.

As in the case of negligent tort, the plaintiff must also be able to prove the causal connection between the product and his injury.

While the theory of strict liability does not apply to a laboratory instructor, under some circumstances he may be able to relieve himself of liability by proving that the defective product was the cause of the student's injuries, rather than the result of any act or omission on his part.

Worker's Compensation

Worker's compensation is outside the realm of tort law. By specific statutory provisions it replaces the original tort action by the injured employee against the allegedly negligent employer. It provides guaranteed compensation for work-related injuries without question of fault, blame, or negligence. In exchange for the guarantee to the employee of compensation, the employer is given immunity from suit. However, in some states employees are allowed to sue coemployees whose negligence caused their injury. In addition, some states have allowed suits against the employer when the employer acted in a dual capacity. For example, if the employer also provided medical treatment or built a machine for use in production, this is a second capacity for which there may not be immunity. These areas are so different from state to state, that no generalization can be made here except to alert the reader to the fact that even worker's compensation immunity may not be complete.

Immunity

In the context of a lawsuit, immunity can be generally defined as the inability to sue an entity, or the limited ability to sue an entity, under circumstance wherein the entity would otherwise be liable.

At common law a state was not liable for its negligent torts unless it gave its specific consent to be sued through a statutory provision. Immunity also extended to religious and charitable institutions. However, in most states, statutes have been enacted that abolish immunity for this latter category of entities.

Most jurisdictions hold that even where the agency enjoys immunity, as when it is performing a governmental function, the immunity does not attach to the individual teachers for their own negligent acts (*Bush v. Oscoda Area Schools* (*11*), and *Crabbe v. County School Board of Northumberland County* (*12*). The Massachusetts Court in *Desmarais v. Wachusett Regional School District* (*13*) held to the contrary, concluding that a teacher was a public official and where his negligence amounted only to nonfeasance of a public duty liability would not attach. In *Desmarais* the alleged negligence was the instructor's failure to enforce a statute requiring students to wear protective eyeglasses.

Other jurisdictions have also retained the immunity defense but have limited its applicability to certain circumstances. In *Wagner v. Alvarado Independent School District* (*14*), for example, the Court stated that the school district, principal, school district superintendent, and instructor were each entitled to immunity as a defense if the alleged negligent acts were not acts of discipline that, through excessive force or negligence, caused injury to the student *and* if the acts in question fell within the individuals' employment. In this case, a student was injured when she tripped and fell while carrying a glass jar filled with acid to a newly constructed school laboratory. Although earlier in the day the instructor had asked for volunteers to assist in transferring the jars during a physics class and had warned them of the need to be careful in handling the dangerous

Summary of Actions Available to Various Parties[a]

Plaintiffs	Defendants						
	Lab Owner	Instructors	Other Employees	Students	Visitors	Suppliers	Text Authors & Publishers
Students	C.L. Neg. Safe Place	C.L. Neg.	C.L. Neg.	C.L. Neg.	C.L. Neg.	C.L. Neg. + S.L.	C.L. Neg. & Possibly S.L.
Instructor	W.C.	Possible W.C. Bar. C.L. Neg. if not.		C.L. Neg.	C.L. Neg.	C.L. Neg. + S.L.	C.L. Neg. & Possibly S.L.
Employees	W.C.	Possible W.C. Bar. C.L. Neg. if not.		C.L. Neg.	C.L. Neg.	C.L. Neg. + S.L.	C.L. Neg. & Possibly S.L.
Visitors	C.L. Neg. Safe Place	C.L. Neg.	C.L. Neg.	C.L. Neg.	C.L. Neg.	C.L. Neg. + S.L.	C.L. Neg. & Possibly S.L.

[a] C.L. Neg. is common law negligence, W.C. is worker's compensation, and S.L. is strict liability.

chemical, this injury occurred after school hours without the instructor's permission or request for further assistance. The Court held that, since the instructor's actions did not, in the first instance, involve discipline, all defendants were entitled to immunity as a defense. Finally, even in those states that have abolished governmental immunity there are those that retain a residual immunity in the form of a limitation of the amount of damages that be recovered against the institution and the employee involved. For example, in Wisconsin, the maximum recoverable against a state employee is $100,000 and against a municipal employee, $50,000. Since each state is different, the law in each state must be ascertained.

Summaries of Actions and Parties

Putting immunities and limitations aside, the table sets forth the types of actions available to varying groups of potential plaintiffs.

Conclusion

Although there are many potential legal entanglements in the chemistry classroom and laboratory, reasonable care and common sense will avoid the vast majority of problems. The analysis of "legalities" presented in the manuscript is offered in the spirit and hope of creation of confident and competent teaching and laboratory supervision.

If any reader is aware of laboratory accidents that lead to a lawsuit, the author would appreciate a brief synopsis of the facts and result (verdict, settlement, etc.) including, if possible, the case title, court, case number, etc., and a copy of any pleading filed in the action.

Acknowledgement

The author wishes to extend his gratitude to his former associate Mary Levenhagen, who contributed to the completion of this article.

Literature Cited

1. Gass, J. R. *J. Chem. Educ.* **1990,** *65,* 51.
2. Brigham Young University v. Lilly White, 118 F.2d 836 (10th Cir. 1941).
3. Damgaard v. Oakland High School District, 212 Cal. 316, 298 P. 983 (1931).
4. LaPorte v. Board of Education of Greater Amsterdam School District, 395 N.Y.S.2d 262, 57 A.D. 1029 (1977).
5. Wentz v. Deseta, 221 N.W.2d 101 (1974).
6. Simmons v. Beauregard Parish School Board, *ante,* fn. 1.
7. Moore v. Order Minor Conventuals, 267 F.2d 296 (4th Cir. 1959).
8. Hutchison v. Toews, 476 P.2d 811 (Or. App. 1970).
9. Wilhelm v. The Board of Education of the City of New York, 12 N.Y.2d 988, 189 N.E.2d 503 (1962).
10. Rixmann v. Somerset Public Schools, *ante,* fn. 30.
11. Bush v. Oscoda Area Schools, *ante,* fn. 4, 15.
12. Crabbe v. County School Board of Northumberland County, 360 Mass. 591, 276 N.E.2d 639 (1971).
13. Desmarais v. Wachusett Regional School District, 209 Va. 433, 164 S.E.2d 639 (1968).
14. Wagner v. Alvarado Independent School District, 598 S.W.2d 51 (Tex. App. 1980).