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LEGAL ASPECTS OF INDOOR AIR POLLUTION

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Increased knowledge about the possible dangers of indoor air pollution has created a different type of danger for a broad spectrum of the business community: the threat of massive lawsuits. Complaints from office workers concerning fatigue, headaches, respiratory and skin irritation, and stress in particular indoor environments have been reported for years but often have resulted in nothing more than ostracism and, perhaps, a referral to a psychiatrist.

Emerging information about the "sick-building syndrome" and the increased public awareness that has resulted from increased media attention have changed that picture markedly. Armed with new data that appear to show health effects from passive cigarette smoke, formaldehyde, radon, asbestos, and other substances, as well as from "tight buildings" themselves (buildings with inadequate ventilation), plaintiffs who believe that they have been injured by the air inside their homes or offices are beginning to take the offensive. They are lobbying on the local, state, and federal levels for protective legislation, and in the absence of such legislation, they are suing for both damages to their health and damages to their property.

These cases are complex not only in the nature of the technical proof that must be developed and presented, but also in the number of parties involved. In cases in which plaintiffs cannot readily identify one particular defendant that can be held responsible for their injuries, some plaintiffs have opted to sue every possible defendant in sight. One such case involved approximately two hundred named and unnamed defendants (*Buckley* v. *Kruger-Benson-Ziemer*).

The building industry faces particular risk. Suits have been filed against architects, builders, contractors, building product manufacturers, and realtors. The possible scope of liability extends further, however, to building owners, building sellers, and, in the commercial context, employers. Even utilities may find themselves in court because of their role in encouraging tighter building envelopes.

The first section of this chapter reviews the liability potential for workplace indoor air pollution by highlighting the legal bases that have been employed, that are now being employed, and that may be employed in the future in indoor pollution litigation against parties such as architects, contractors, and product manufacturers. The second section raises certain problems posed by these lawsuits for plaintiffs and defendants alike. The third section discusses the status of lawsuits that have been brought concerning indoor air pollution and the sick-building syndrome.

CAUSES OF ACTIONS IN INDOOR POLLUTION LITIGATION

Six basic legal theories create rights upon which individuals injured by indoor air pollution often sue for recompense. Knowledge of the legal theories, which overlap substantially, is important because different theories may permit recovery against different defendants. A seventh catch-all category of miscellaneous legal theories is included to illustrate some less-used possibilities for claiming legal liability.

CONTRACTUAL OBLIGATIONS/EXPRESSED WARRANTIES

Expressed warranties are positive representations made by the seller of a product to the purchaser. They can arise in any transaction between any two parties and can appear in sales contracts, labels, advertising, or samples. In one case relevant to this discussion (*Bradley* v. *Brucker*), a seller of a house was aware that a buyer had a lung condition that made him sensitive to moisture. The seller warranted in the purchase agreement that the basement would be dry except for condensation. But within four months of the house purchase, water appeared in the basement. The court found a breach of the expressed warranty. A similar case (*Alfieri* v. *Cabot Corp.*) involved a label on a bag of charcoal representing that the charcoal was "[ideal] for cooking, in or out of doors." The charcoal was used to cook steaks outdoors, but the smoldering grill was later brought inside a cabin. One person died from carbon monoxide poisoning, and another became ill. The charcoal company was held liable, based in part on the expressed warranty. Breach of written warranty claims are common in formaldehyde exposure cases, particularly those involving mobile homes (e.g., *Mobile America Sales Corp.* v. *Smith*).

Liability for breach of an expressed warranty, where such a breach can be proved, is attractive for plaintiffs because of its simplicity. Liability depends not on any particular knowledge of fault by the seller, but only on the falsity of the representation.

Employers may seek to rely on expressed warranties in suing companies who have supplied products that pollute the workplace, in breach of affirmative representations. Cases in which injured individuals file lawsuits involving breaches of expressed warranties, however, are more likely to arise in the residential than in the commercial context. In the residential setting, the injured individual is more likely to be the person to whom the warranty was extended. In the work environ-

ment, employees have more limited control over their surroundings. They are probably not involved in purchasing decisions concerning the work environment and, therefore, would not have been the direct recipients of expressed warranties. An employee might have to argue that he or she was the intended third-party beneficiary of an expressed warranty made by a seller of a dangerous building product to the employer. Such a showing might not be difficult where employees use dangerous products labeled by a manufacturer for the employees' safety.

CONTRACTUAL OBLIGATIONS/IMPLIED WARRANTIES

Even where the seller of goods makes no expressed warranties, the courts imply certain fundamental warranties. For example, goods are implicitly warranted to be fit for the ordinary purposes for which they are used. A plaintiff who suffered respiratory injury from the release of irritating fumes while using a bathroom cleaner prevailed in a suit against the manufacturer because the product was not fit for ordinary use (*Shirley* v. *The Drackett Products Co.*).

Any product that creates noxious indoor pollutants may be argued to be unfit for its ordinary use. A kerosene heater that, in its normal operation, asphyxiates the occupants of a room clearly would not be fit for its ordinary use. Similarly, if urea-formaldehyde foam insulation or particleboard releases formaldehyde gas into a building, rendering the indoor air dangerous, the product may breach its implied warranty. Nonetheless, courts are still wrestling with the precise bounds of the implied warranty protection. In particular, courts have taken divergent views concerning liability for the reactions of individuals particularly sensitive to certain chemicals. In a case involving exposure to formaldehyde leading to severe and permanent asthma, a plaintiff was required to show that a reasonably foreseeable and appreciable number of users who are exposed to the product would suffer some ill effect, but the plaintiff was not required to show that other users would suffer a reaction as severe as that experienced by the plaintiff (*Tiderman* v. *Fleetwood Homes of Washington*).

Using a theory counteracting traditional notions of *caveat emptor*, courts have decided that buildings themselves carry implied warranties: warranties of fitness for human habitation (see *Elderkin* v. *Gaster*; *Waggoner* v. *Midwestern Development*; *Jones* v. *Gatewood*; *Davis and DeLaTorre* 1984). Such warranties usually run from the original builder or vendor of the building, and in many states, the warranty is not limited to the first purchaser. In one case, for example, the third buyers of a house were awarded damages from a builder when they discovered strong formaldehyde odors from the original carpet and padding installed in the building. The odors made the house uninhabitable, breaching the warranty of habitability (*Blagg* v. *Fred Hunt Co.*).

It is uncertain, however, whether implied warranties of habitability apply to commercial as well as residential property. In at least some jurisdictions, the services of architects and engineers are subject to their own implied warranties. The courts often deem that architects and engineers warrant, by implication, that the plans and specifications they produce will yield a structure reasonably fit for its intended purpose (e.g., *Bloomsburg Mills* v. *Sordoni Construction Co.*). A structure with unhealthy levels of indoor contaminants may breach this implied warranty, subjecting architects and engineers to possible liability. In some states, such as California, the implied warranty of fitness for human habitation has been extended to landlord-tenant relationships. Tenants are now able to sue for injuries caused by unfit housing owned by landlords. Some states impose this obligation by statute. See, for example, Minn. Stat. 504.18(1)(a). In such states, injured employees may be able to sue their employer's landlord, alleging a breach of the implied warranty of habitability by the commercial landlord. Buildings that do not provide for adequate ventilation or that contain products emitting hazardous fumes may subject their owners to liability. Some states, however, require a showing that the landlord had knowledge of the condition before awarding judgment for the plaintiffs (e.g., *Meyer* v. *Parkin*).

NEGLIGENCE

Negligence is probably the most familiar basis for liability and is perhaps the most broadly applicable. Negligence is simply a failure to exercise due care, defined as the degree of care that would be exercised by a "reasonable person." Individuals may be found negligent in the performance of services or in the manufacture of products. An architect might be deemed negligent in designing a building without adequate ventilation or by specifying the use of unsafe products in the building; an insulation contractor might be negligent if the mixing of urea-formaldehyde insulation was improper and resulted in the release of formaldehyde gas; the manufacturer of a kerosene heater may be negligent in failing to provide adequate warnings that the heater should be used only in well-ventilated areas.

In some situations, certain individuals can be held responsible for the negligence of others. For example, a homeowner has recovered against a builder for the asphyxiation of her husband from carbon monoxide leaking from a gas heater that was incorrectly installed in the house by a subcontractor (*Dow* v. *Holly Mfg. Co.*).

For both plaintiffs and defandants, however, negligence actions have severe drawbacks. The plaintiff must show that the defendant's conduct was unreasonable. The obvious difficulty is in determining the necessary measures that constitute "due care." Negligence actions are inherently unpredictable. Different judges or juries faced with similar facts may arrive at different conclusions. These ambiguities place possible defendants in a cloud of uncertainty; they cannot know what is expected of them because the standards always shift. Will building owners or utilities be held liable to later purchasers for negligently weatherizing their structures so tightly that indoor pollutants are not able to escape? Will realtors be held negligent for failing to test and disclose levels of indoor pollutants?

As knowledge about indoor air pollution increases, building professionals will increasingly be required to consider the consequences of their actions on the indoor environment. The precise contours of the emerging obligation can be drawn only by future litigation. Negligence actions also force the parties to deal with defenses such as contributory negligence and assumption of risk.

STRICT LIABILITY

Strict liability applies to liability for defective products. Strict liability does not depend on "fault," as does negligence. This theory of liability shifts the focus of legal inquiry from conduct of the manufacturer to the product itself. In some cases, courts have taken strict liability a step further, holding a manufacturer liable for defects that were scientifically unknowable at the time of the product's manufacture. A product can be defective either because of its manufacture or its design. For example, urea-formaldehyde foam insulation that offgases formaldehyde vapors because the constituent chemicals were not mixed in the proper proportions may be considered to have a manufacturing defect. On the other hand, a mobile home that contains dangerous components or that does not permit sufficient ventilation may be deemed defectively designed (*Heritage* v. *Pioneer Brokerage & Sales*). If a product cannot be made safe, the manufacturer must provide adequate warnings that would render it safe for use. A manufacturer of a gas heater, for example, was held liable in a case in which it failed to provide adequate warnings concerning the proper height of the chimney, and a person who used the heater without a proper chimney died from asphyxiation (*Wallinger* v. *Martin Stamping and Stove Co.*).

Defendants in strict liability cases have frequently relied upon a "state-of-the-art" defense, arguing that they had insufficient knowledge for liability to be appropriate. In a 1987 decision, the Supreme Court of Hawaii held that a defendant's knowledge is irrelevant in a strict liability case. The court decided that since strict liability causes of action are based upon the inherently dangerous nature of the product, the state-of-the-art defense is precluded. Thus, a manufacturer can be held liable to plaintiffs for injuries brought about by a defective product even when there was no knowledge of danger at the time of production (*Johnson* v. *Raybestos-Manhattan, Inc.*). Courts in at least two other states have handed down similar decisions (*Beshada* v. *Johns-Manville Products Corp.*; *Carrecter* v. *Colson Equipment Co.*).

Recovery under a strict liability theory is not limited to the purchaser of the product. Anyone injured by a defective product, including employees in the work environment, can sue. The relative ease of recovery under a strict liability theory makes product liability suits attractive to plaintiffs; they are dreaded by defendants. The key limitation of strict liability in the indoor environment is that it applies only to products. In some but not all jurisdictions, a building itself is a product subject to strict products liability. Although strict liability was at first extended only to mass-produced buildings (*Kriegler* v. *Eichler Homes*), it has been applied more recently to non-mass-produced buildings as well (*McDonald* v. *Mianecki*). In such jurisdictions, plaintiffs may seek to employ strict liability in suits against the builders of commercial buildings now known to have unhealthy indoor air. A necessary corollary of the strict liability theory is that it can be used only against the manufacturer of the product or the builder of a building. It probably cannot constitute the basis for suits against architects, realtors, or utilities.

MISREPRESENTATION/FRAUD

States impose a different set of obligations on the sellers of property. In general, a seller and the seller's real estate agent must not misrepresent any important fact about the property being sold. Innocent as well as knowing misrepresentations may trigger liability (*Spargnapani* v. *Wright*). Moreover, silence is often insufficient. Sellers are usually obligated to disclose serious latent defects in the property sold, whether or not the buyer asks about them (*Quashnock* v. *Frost*; *Maples* v. *Porath* [termite infestation]; *Cooper* v. *Jevne* [substandard construction]; *Weintraub* v. *Krobatsch* [roaches]. But see *Diaz* v. *Keyes Co.* (1962), in which there was no obligation to disclose. Nor can sellers make statements recklessly. For example, even a general statement that "everything's fine" with the property can give rise to liability when that statement is made in reckless disregard of the truth (*Hammond* v. *Matthes*).

Employers may sue the prior owners of business property (or their agents) for misrepresentation or fraud in the purchase of land. It is likely that similar suits could be filed against landlords by employers that lease their property. Whether injured employees could successfully sue based on misrepresentations made to their employers, however, is somewhat more speculative.

A 1987 federal district court decision illustrates how a misrepresentation/fraud theory can be applied to an indoor air pollution situation (*Barth* v. *Firestone Tire and Rubber Co.*). An employee sued his employer for exposure to a variety of industrial toxins. The plaintiff's attorneys argued that the claim fell outside the exclusivity provisions of the state's workers' compensation system. The attorneys alleged that the employer fraudulently concealed its knowledge of the injury and denied and disguised the use of dangerous substances in order to avoid regulation. Although the court rejected the plaintiff's willful assault theory, it was convinced by the argument of fraudulent concealment.

In *Bardura* v. *Orkin* (1987), a chlordane poisoning case, the plaintiffs alleged that the company had used unfair or deceptive means to persuade the plaintiffs to purchase pest control services for a termite problem that did not exist. The jury returned a verdict for the plaintiffs.

LANDOWNER OR LAND OCCUPIER LIABILITY

Owners or occupiers of land have an obligation to protect their business invitees on the land. This obligation extends not only to dangers actually known to the owner or occupier, but also to defects discoverable through the exercise of reasonable care (e.g., *F.W. Woolworth Co.* v. *Williams*). For example, if a customer of a business is injured by indoor air pollution while on the business premises, the business would be liable if it knew or should have known of the danger. Whether the business owned the premises or leased them would not affect its liability.

Whether the landlord of property leased to a business remains liable for the condition of the property is a separate question. Although lessors of land traditionally did not owe any obligations to their lessees, the traditional rules have been changed by the application of implied warranties of habitability to the lessor-lessee

relationship. Even under the more traditional doctrine, landlords are obligated to disclose concealed dangerous conditions unknown to the lessee. Moreover, landlords remain liable for parts of the premises that remain under their control, such as hallways or lobbies (Prosser 1971).

Thus, employees injured by indoor air pollution may be able to sue the owners of the business premises in which they work, assuming that the property is owned by someone other than the employer. Moreover, employees may attempt suits directly against the employer. Although workers' compensation schemes normally bar such direct suits, employees have attempted to circumvent the bar by alleging that the employer acted intentionally (*Blankenship* v. *Cincinnati Milacron Chemicals*) or by employing the dual capacity doctrine based on the employer's obligations as an owner or occupier of the property (*Duprey* v. *Shane*; *Panagos* v. *North Detroit General Hospital*). Such suits are more likely to prevail when the business premises are open to the general public.

Commercial leases and sale contracts often contain provisions disclaiming any obligations by the landlord or buyer. Yet other provisions require that the tenant or buyer indemnify the current owner for any liability relating to the property. Although courts have not hesitated to invalidate, based on unconscionability, disclaimer provisions when applied to homeowners who were not aware of the meaning of these provisions, the courts would probably not interfere when more sophisticated commercial concerns agree to disclaimers (U.C.C. Section 2–719, 1977, unconscionability of limitations on consequential damages for personal injury). Nonetheless, disclaimers might serve only to prevent suits by the employer against its landlord and might not affect suits by other injured individuals. Indemnification provisions, similarly, would not affect the liability of the landlord but might give the landlord certain rights to sue the tenant—the employer—to recover any judgments paid to injured employees. The permissibility of such a claim is generally governed by workers' compensation statutes because the claim would make the employer liable for the injuries of its employees (Weisgall 1977). Commercial leases also typically require both parties to maintain insurance, and such insurance may cover all or part of the loss.

MISCELLANEOUS LEGAL THEORIES

Some employees have brought suit alleging that their sensitivity to indoor air pollution is a handicap that entitles them to protected status. The court in *Vickers* v. *Veterans Administration* (1982) agreed that an employee who was "unusually sensitive to tobacco smoke" was handicapped within the meaning of the Vocational Rehabilitation Act. The court further held, however, that since the Veterans Administration had made reasonable accommodation efforts, no discrimination had occurred.

Assault and battery is another legal theory of liability plaintiffs can use to try to obtain redress for their injuries from indoor air pollution. Such a claim was made by an employee (*McCracken* v. *Sloan*) who was subjected to cigar smoke. The court held, however, that consent to such ordinary contacts is assumed.

Other possible claims for plaintiffs in indoor air pollution cases include nuisance, infliction of emotional distress, conspiracy, and equitable remedies.

BARRIERS FOR PLAINTIFFS AND DEFENDANTS IN INDOOR AIR LITIGATION

Litigants seeking compensation for personal injury or property damages face all of the barriers normally attendant to parties of toxic tort actions. Both plaintiffs and defendants face substantial difficulties involving the investigation, proof, and presentation of highly complex technical issues at the frontiers of scientific knowledge. In addition, the parties face other theoretical and practical hurdles that will be discussed below.

BARRIERS FOR PLAINTIFFS

Statutes of Limitations Long latency periods for the manifestations of some diseases often bring plaintiffs' claims into conflict with applicable statutes of limitation that require suits to be filed within a certain time of the injury. The critical distinction with which the courts have wrestled is whether the time period starts to run from the exposure to a hazardous substance or from the date of discovery of the injury.

In the last couple of years, some states have changed their statutes of limitation for toxic tort litigation so that plaintiffs have a better chance of having their claims heard. For instance, New York has adopted the "discovery" rule, which starts the clock when the plaintiffs knew or should have known of their injury (L 1986, Ch. 682, 4).

Questions as to whether the statute of limitations has run can become quite complex. In *Vincent* v. *A.C. & S., Inc.* (1987), the U.S. Court of Appeals for the Fifth Circuit had to decide whether a settlement between the plaintiff and several asbestos manufacturers constituted a "voluntary dismissal" that would time-bar the plaintiff from amending the complaint to add claims against other manufacturers. Although Louisiana has a one-year statute of limitations, under state law it is interrupted by a suit on the same cause of action and it resumes once the suit is no longer pending unless the suit is "voluntarily dismissed" by the plaintiff. The court ruled that the settlement was not a voluntary dismissal. In *Huff* v. *Fibreboard Corp.* (1987), a widow filed suit within two months of her husband's death from asbestosis in 1979. The U.S. Court of Appeals for the Tenth Circuit ruled that the husband should have known of his condition as of 1975, when he visited a doctor about lung problems. The court held that the widow's claim was time-barred by Oklahoma's two-year statute of limitations.

Proof of Causation of the Alleged Injury Plaintiffs must prove that the injury they claim to be suffering was inflicted by the cause alleged. The ease with which such showings can be made varies with the particular source of injury: proof of a causal relationship between asbestos exposure and asbestosis or mesothelioma is far

simpler than proof of a relationship between tightly insulated houses and radon exposure, and in turn, between radon exposure and lung cancer. Similarly, proof that nose or throat irritation was caused by formaldehyde vapors or passive cigarette smoke may be difficult.

In order to provide medical causation, plaintiffs may have to rely on toxicity data from studies conducted on the dangerous substance in question. Laypeople on a jury may have difficulty understanding information of such a technical and scientific nature. Sometimes the plaintiff may have to rely on a novel theory of injury. Expert testimony in support of such a theory is particularly susceptible to being offset by expert testimony that the theory is unproven or unaccepted by some in the medical community. Testimony in support of a novel theory of causation may even be barred if the court decides that the scientific community has not generally accepted the theory. Proof of causation is complicated further by the fact that an illness can frequently be caused by multiple factors.

As scientific knowledge grows and as additional cases are litigated, the burden of proving causality may ease. Already, various proposals have been made to ease this burden by shifting presumptions in favor of the plaintiff once the plaintiff makes a limited threshold showing of injury (Trauberman 1983). Another development that will benefit plaintiffs is the practice of awarding medical monitoring costs when there may be future health effects (e.g., *Barth* v. *Firestone Tire and Rubber Co.*).

Given the large number of parties potentially responsible for high levels of indoor pollution in a building, a plaintiff may have difficulty showing that any individual defendant should be liable. For example, courts will have to decide who should bear the burden of injuries from high levels of combustion pollutants in a well-insulated structure: the manufacturers of the gas stove and furnace, the architect who designed the tightly insulated building, the builder who built it, or the owner of the structure who directed that the building be energy efficient. Each party, from a technical standpoint, is in some way responsible for the ambient levels present in the building.

Proof of a Nexus between Cause of Injury and the Defendant Employees who can manage to sue within the applicable statute of limitations period and show that their injuries were caused by exposure to a certain hazardous substance must nonetheless show that the particular defendants they are suing should be held liable for that exposure. In the asbestos personal injury cases now overloading the nation's courts, for example, shipyard workers have often been exposed to the asbestos of numerous different manufacturers. These workers, not knowing which manufacturers' asbestos caused their injuries, typically sue all of the companies, and the courts have been required to find ways to apportion liability. Some courts have held that all manufacturers should be "jointly and severally liable" for the entire injury (*Borel* v. *Fibreboard Paper Products Corp.*). Some courts have chosen to apportion liability according to the individual companies' market shares (*Sindell* v. *Abbott Laboratories*). Yet other courts have discussed an "enterprise liability" scheme, involving a broad application of joint and several liability on all manufacturers involved coupled with a loosened causation requirement (*Hall* v. *E.I. DuPont de Nemours and Co.*). It remains to be seen whether any of these theories is extended and applied to indoor pollution litigation.

Practical Barriers Toxic tort litigation is costly and unpredictable. The high transaction costs of litigating personal injury cases and the lengthy delays before receipt of final compensation, assuming that compensation is awarded, discourage trials for all but the most severe injuries.

One of the primary practical barriers to plaintiffs in indoor air pollution litigation apparently is the identification of the appropriate defendant. In the context of most occupational injuries, the manufacturer of a particular product can usually be identified and held responsible for the injury. The simplicity of suing for product liability often leads employees injured in the workplace to sue the manufacturer of the product that injured them. In some indoor air pollution cases, plaintiffs can also sue a manufacturer, such as the manufacturer of formaldehyde insulation, the manufacturer of a defective ventilation system, or the manufacturer of a defective heater.

Not all indoor air pollutants, however, result from a manufactured product. Radon, for example, is a natural element present in the soil, water, and air. In seeking compensation for injuries from such pollutants, therefore, the identification of the appropriate defendant or defendants for a claim may be more difficult. Nonetheless, creative legal minds can construct new chains of causation that point the finger of liability at some solvent party. For example, a plaintiff can sue the company that weatherized the building so tightly that radon could not escape, the architect who designed the building with inadequate ventilation, or the contractor who laid the foundation with the crack that allowed the radon to seep into the building. Each of these chains of causation must be factually justified, and as the cause becomes more remote, the chance of recovery becomes smaller. Of course, in those jurisdictions in which a building is considered a product subject to strict liability law, a plaintiff could allege that a building with excessive interior concentrations of radon is itself a defective product for which its builder should be strictly liable.

Employees who suffer from indoor air pollution in the workplace may file a workers' compensation claim. An injured worker may also decide to institute a suit against a third party. Most states have workers' compensation systems that forbid any lawsuit against the employer. In such a situation the employee will often sue one or more third parties in order to overcome the workers' compensation exclusivity provision. The third-party defendant (frequently the building owner or operator) can then bring the employer into the suit by various methods, including filing a cross-claim. Third-party suits are often attractive because the plaintiff is not subjected to the law ceilings on recovery imposed by workers' compensation schemes. In addition to the larger compensatory damages available, injured plaintiffs may also be awarded punitive damages (in excess of the actual injuries

sustained). Each of these advantages translates into distinct disadvantages for the defendants in common lawsuits, who may be subjected to large jury verdicts for conduct that cannot be characterized as blameworthy and for injuries partially caused by the employee's or employer's own negligence.

A claim of intentional conduct on the part of the employer is another method employees are using to take their claims out of the exclusive province of some workers' compensation schemes. To make the requisite showing, an employee may not hope to prove that the employer intended to harm the employee, but only that the employer intended to expose the employee to dangerous substances. Some courts, however, have required a showing that the employer intended to harm the employee (*Prescott* v. *United States*; *Evans* v. *Allentown Portland Cement Co.*; *Castlebury* v. *Frost-Johnson Lumber*).

The dual capacity doctrine has been used as a device to enable an employee to sue the employer in an indoor air pollution situation. When the employer is acting in some capacity in addition to that of an employer, the employee can name the employer as a defendant in that other capacity. An example would be an employee suing the landlord or the manufacturer of the harmful product who also happens to be the employer.

Employees have also succeeded in suing their employers directly by alleging a fraudulent concealment of a hazardous condition in the workplace. For example, in *Johns-Manville Products Corp.* v. *Superior Court of Contra Costa County* (1980), the California Supreme Court ruled that an employee could sue his employer based on an allegation that the employer had fraudulently concealed its knowledge that the employee was suffering from a disease caused by the ingestion of asbestos and had fraudulently concealed the hazardous nature of the asbestos to which the employee was exposed. Courts have not uniformly adopted this exception, however. Other courts still hold that allegations of fraudulent concealment do not take the claim out of the exclusive workers' compensation system (*Kofron* v. *Amoco Chemicals Corp.*).

BARRIERS FOR DEFENDANTS

Defendants face barriers at least as substantial as those faced by plaintiffs in indoor air liability suits. Defendants can be subject to baseless nuisance suits that are brought solely for the purpose of coercing a settlement. Faced with such a suit, a defendant has the unpleasant choice of paying funds in order to settle a claim that has no foundation, thereby making itself a possible target for future baseless claims, or of bearing the substantial costs of defending the case. The cost of defending nonfrivolous claims is considerable as well. In the workplace environment, lawsuits by employees who claim they have been injured by the building in which they work can also have an effect on the morale of other employees. Once one employee makes such a claim, other employees are likely to question whether certain symptoms of theirs might be related to the workplace as well. If not addressed appropriately, a claim of sick-building syndrome raised by one employee can soon engulf an employer in a multitude of claims and grievances. That all of these claims may have no relationship to the building is difficult for the employer to establish.

STATUS OF INDOOR AIR LIABILITY SUITS

Notwithstanding the barriers to recovery, suits that can be characterized as indoor air pollution liability suits are multiplying. A discussion follows of the current state of legal actions in the area of indoor air pollution.

FORMALDEHYDE

Suits for personal injuries or property damage relating to exposure to formaldehyde, typically either from urea-formaldehyde foam insulation or from particleboard in mobile homes, have burgeoned during and after the Consumer Products Safety Commission investigation and eventual ban on urea-formaldehyde foam insulation in 1982. (The ban was overturned by the U.S. Court of Appeals for the Fifth Circuit in *Gulf South Insulation* v. *Consumer Product Safety Commission*).

More than two thousand formaldehyde-related lawsuits have been filed in the United States, and many more suits have been filed in Canada. At least three of these suits have led to jury verdicts in excess of $500,000. Numerous out-of-court settlements have also involved six-figure sums. Formaldehyde suits have named as defendants—in addition to the manufacturers of the formaldehyde—architects, builders, building contracting companies, building product manufacturers, and realtors.

Several cases are proceeding as class action lawsuits on behalf of numerous parties, but a number of courts have refused to certify formaldehyde cases for class action procedures because the differences among the cases can be greater than their similarities, necessitating an individualized approach (*Caruso* v. *Celsius Insulation Resources*; *Brummett* v. *Skyline Corp.*; *Kegley* v. *Borden, Inc.*; *Delaney* v. *Borden, Inc.*).

As of the end of 1987, formaldehyde litigation was declining. A number of factors can be cited as significant causes of this decline. First of all, after the 1982 ban on urea-formaldehyde foam insulation, its use virtually ceased. Second, for the last five to ten years formaldehyde product emissions have been significantly reduced by the industry's adoption of various corrective measures. Third, the extent of victims' injuries is usually relatively minor and nonspecific. Fourth, formaldehyde plaintiffs have the usual difficulty of trying to establish causation. Fifth, there has been a decrease in both publicity and public awareness about health risks associated with formaldehyde. Other indoor air pollutants, such as radon and chlordane, have become the story of the day. Sixth, many producers, distributors, and installers of formaldehyde which might be named as defendants have filed for bankruptcy. Finally, most urea formaldehyde foam insulation cases that have been brought to trial have resulted in defense verdicts.

RADON

At least one family living in a house contaminated with high levels of radon gas sued a company that operated a nearby uranium mine that produced the mill tailings placed in and around the foundation of their house. The court agreed that the plaintiffs were entitled to a trial on whether the presence of the radon had forcibly evicted them from their house, agreeing that the defendant's actions may have "constituted a denial of physical access to the property." The court also permitted claims for punitive damages and for chromosomal damage that had occurred as a result of the radon exposure (*Brafford* v. *Susquehanna Corp.*). The litigants settled the case, terms of the accord are confidential.

Other suits have also been filed on behalf of plaintiffs owning houses built on uranium mill tailings. At least one other radon lawsuit is being contemplated on behalf of an owner of a house that has elevated radon levels not attributable to mill tailings. That homeowner was forced to expend substantial sums of money to isolate the source of and reduce high radon concentrations in his energy-efficient house. This lawsuit would be directed principally against a ventilating contractor who installed a defective ventilating system that permitted radon from soil to enter the house's air supply.

A panel of arbitrators recently decided a radon suit that involved a real estate transaction. The contract included an escape clause that allowed the buyer to cancel the contract in the event radon levels were found to be "unsatisfactory." The buyer invoked this clause, and the seller, who had to accept a lower price as a consequence, sued the buyer for the difference. The panel of arbitrators held in the buyer's favor and said the buyer was not liable for the decrease in value that resulted from the knowledge of radon levels.

CHLORDANE AND OTHER PESTICIDES

Numerous suits have been filed involving the termiticide chlordane. In *Cunningham* v. *Orkin*, the plaintiffs succeeded in recovering for pain and suffering, the removal and rebuilding of the house, the contents of the house, and medical monitoring costs. The issue of punitive damages is still in dispute in this case. *Tuttle* v. *Tindol Services* resulted in a verdict of compensatory and punitive damages for the plaintiffs because of a finding that the company was negligent in applying the chemicals. The company admitted at trial that it had misapplied the termiticide.

A chlordane suit brought under a state consumer protection act alleged that the defendant mistakenly drilled holes into heat ducts and contaminated the home. The case settled for $730,000 (*Steingaszner* v. *Paramount Pest Control*).

However, in *Rabb* v. *Orkin* (1987), a South Carolina court denied a plaintiff's motion that there was sufficient evidence for a jury finding that the company was not negligent in applying the pest control chemicals to the plaintiff's home. The court ruled that the exclusion of the plaintiff's expert witness's testimony was proper where the witness would not quantify the increased health risks.

On April 21, 1988, a federal grand jury in Roanoke, Virginia, indicted Orkin Exterminating Co. on five criminal counts of violating federal pesticide laws when its employees allegedly misapplied the pesticide Vikane, an action that the Environmental Protection Agency said resulted in the deaths of the two residents of the home in which the pesticide was applied (*U.S.* v. *Orkin Exterminating Co.*). The indictment seeks a fine of $1.7 million for alleged violations of the Federal Insecticide, Fungicide, and Rodenticide Act, which governs the labeling and use of pesticides. The specific charges alleged that the company allowed a fumigated site to be occupied before the fumigation was complete, removed a warning sign before aeration of the site was complete, failed to remove pillows and mattresses from the house, failed to use a warning agent before fumigation, and failed to use appropriate breathing apparatus in applying the pesticide. The two Orkin applicators were charged previously with involuntary manslaughter and had received suspended sentences.

TOBACCO SMOKE

Nonsmokers continue filing suit to win and enforce their rights to a smoke-free work environment. In at least one such case, a smoker intervened in a lawsuit after a co-worker won a temporary restraining order banning smoking in her work area. The smoker succeeded in frustrating the nonsmoker's attempt to obtain a preliminary injunction in the same case (*Lee* v. *Department of Public Welfare*). Judicial challenges to new state and local antismoking legislation seem inevitable.

ASBESTOS

Personal injury lawsuits by asbestos workers continue to proliferate; approximately twenty-five thousand such suits are pending nationwide. Although asbestos in buildings may pose no health problem whatsoever, suits concerning liability for the removal of asbestos have been deemed the "second wave" of asbestos litigation. Many of these "rip and replace" suits have been filed on behalf of school districts; the largest such case is a $1.4 billion class action in federal district court in Philadelphia on behalf of all public school districts and private schools nationwide (*In Re Asbestos School Litigation*). Private companies have hardly begun to sue for their costs in removing asbestos. Unlike public schools, private buildings need not be inspected for asbestos, nor has asbestos exposure in private buildings attracted as much public attention or concern. Private parties may not yet have undertaken programs for the removal of asbestos which would result in property damage suits.

At least one court has decided that the presence of asbestos in a building does not give rise to a property damage claim under an insurance policy (*U.S. Fidelity and Guaranty Co.* v. *Wilkin Insulation Co.*). In another case, hospitals were denied class action status in their suit against manufacturers to pay for the removal of asbestos (*Sisters of St. Mary et al.* v. *Aaer Sprayed Insulation et al.*).

Personal injury suits by individuals exposed to asbestos in buildings may prove to be the third wave of asbestos litigation. For example, in *Swogger* v. *Waterman Steamship Corp.* (1987), the court allowed shipowners to seek indemnification

from manufacturers and distributors of asbestos put in ships. The shipowners had reached a settlement with the estate of an engineer who had died of malignant mesothelioma, allegedly caused by exposure to asbestos. In another case, a plaintiff recovered more than $500,000 from the original seller of a fireproofing material in Ohio. The company knew that the asbestos product was dangerous, but it did not warn the parties who might be harmed (*Layne* v. *GAF Corp.*). In Chicago, two widows whose husbands allegedly died from asbestos exposure each recently settled their claims with the manufacturers for close to $1 million (*Brennan* v. *Celotex*; *Wessels* v. *Celotex*). At least one court has ruled that asbestos manufacturers have a continuing duty to warn those who have been exposed to asbestos of the hazards they face, even after exposure has ended. This duty was held to be especially strong where such a warning could have reduced or removed the danger. The court in *Lockwood* v. *A.C. & S. Inc.* (1987) ruled that the plaintiff's injury might have been reduced if he had been advised to stop smoking.

Other procedural and substance aspects of asbestos cases are currently being addressed by pending litigation and court decisions.

The Illinois Supreme Court is considering the issue of whether punitive damages should be allowed for an asbestos-related illness. Such a finding would have to be based on evidence that the defendant knew that there were dangers associated with the product at the time the injury was incurred. The court is reviewing the punitive damages award handed down by the jury in *Donald Lipke* v. *Celotex* (1987). At least four states (Louisiana, Massachusetts, Nebraska, and Washington) do not allow awards for punitive damages whereas several other states (Connecticut, Michigan, and New Hampshire) limit such awards. Only a few courts have upheld punitive damages awards in asbestos cases.

In an asbestos case in which the responsible tortfeasor could not be identified, plaintiffs were unsuccessful in getting the court to adopt a theory of collective liability as a basis for relief. The plaintiff had attempted to use a market share approach to hold more than twenty defendants liable for his injury from asbestos exposure (*Case* v. *Fibreboard Corp.*). Whereas this approach has worked for the single product of diethylstilbestrol, it has been unsuccessful in cases in which asbestos-related injuries have resulted from numerous products.

The state-of-the-art defense has been precluded for defendants in two recent asbestos decisions. In *In Re Asbestos Litigation*, the U.S. Court of Appeals for the Third Circuit agreed with New Jersey Supreme Court decisions that had abolished such a defense in asbestos personal injury suits (829 F. 2d 1233, 3rd Cir. 1987) (see also *Johnson* v. *Raybestos-Manhattan* [1987]).

There has been a difference of opinion between courts in Pennsylvania and Illinois as to whether the diagnosis of alleged asbestosis and subsequent diagnosis of alleged asbestos-related cancer constitute two separate causes of action with reference to the statute of limitations. The court in *Roush* v. *GAF Corp.* (1987) ruled that these two diagnoses were the basis for only a single cause of action. In *VaSalle* v. *Celotex Corp.* (1987), the court held that asbestosis and asbestos-related cancer were two distinct diseases, and, therefore, each gives rise to its own cause of action. Thus, the suit for asbestos-related cancer was not time-barred by a two-year statute of limitations even though a diagnosis of asbestosis had been made three years earlier.

In a twist on the usual theme of legal claims, a former asbestos manufacturer that had been paying asbestos injury claims filed suit in a federal district court in Kansas claiming that many of these claims were fraudulent. The manufacturer named lawyers, medical experts, and the workers as defendants. The suit was filed under the federal Racketeer Influenced and Concept Organizations Act and claimed that physical exams of workers were either inadequate or false and that the doctors were not qualified (*Raymark Industries, Inc.* v. *Stemple*).

SICK-BUILDING SYNDROME AND MISCELLANEOUS INDOOR AIR POLLUTION CASES

Plaintiffs unable to identify particular pollutants that are responsible for their alleged injuries have begun to file court suits and workers' compensation claims alleging that they suffer from sick-building syndrome and, therefore, are entitled to recovery from the named defendants.

Perhaps the first of these cases is *Buckley* v. *Kruger-Benson-Ziemer* (1987). In *Buckley*, the plaintiff sued approximately two hundred named and unnamed defendants for his personal injuries, allegedly sustained after he was exposed to indoor pollutants in his tightly enclosed workspace. The defendants included the builder of the building, along with its architect, engineer, and ventilation contractor; and the manufacturers, sellers, and installers of numerous products used in the building. The case was settled before trial for an estimated $622,500.

In August 1986, Alaska state employees filed personal injury claims against the architect, contractors, and owner of an office building alleging illness from microbiologic contaminants (*Henley* v. *The Blomfield Co.*). The problem caused by the contaminants allegedly was so severe that one employee collapsed at his desk, and the building was finally evacuated. The cause of the problem was traced to the air-conditioning system, which was itself contaminated with a variety of fungi. The plaintiffs are claiming that the defendants are liable under strict liability, negligence, recklessness, and theories of breach of explicit and implicit warranties of fitness.

A couple in Massachusetts has filed suit against Charles L. Elliot Co., Elliot's insurer, and the couple's home insurer to recover damages resulting from oil gushing into and vaporizing in the couple's home. As a result of this incident the couple had to vacate their house. They also allege damages from illness, emotional harm, loss of personal property, and the medically necessitated quitting of a job.

In *Stillman* v. *South Florida Savings and Loan*, indoor air issues have emerged in a counterclaim. Upon discovering alleged indoor air pollution problems in a building it was occupying, South Florida Savings and Loan vacated its premises. Stillman sued the savings and loan company for rent due and other costs. The bank counterclaimed, alleging that the landlord did not provide a safe working environment, pointing to a failure to maintain a proper air-conditioning system.

Workers' compensation claims involving indoor pollution have emerged as

well. For example, David Lindahl, while working in the Department of Energy housed in the James Madison Memorial Building on Capitol Hill, contracted Legionnaire's disease. He filed a workers' compensation claim but was denied recovery because of failure to prove a causal connection between working in that building and contracting the disease, according to *Washingtonian* Magazine.

Workers' compensation claims based on indoor air pollution do not always fail, however, as evidenced by *Ava Goldman* v. *Broward County Board of County Commissioners*. In this case, the defendant agreed to compensate the plaintiff shortly before court proceedings began. The plaintiff claimed she had been exposed to pathogenic molds, and tests showed that there was a high level of fungus *Aspergillus niger* in the office's air.

One case that is likely to receive more attention in the future is *Vermont* v. *Staco* (1988). In this case Vermont used the liability provisions of the federal superfund law to recover the costs of cleaning up workers' homes that were allegedly contaminated with hazardous substances from a worksite. The company produced mercury thermometers, and employees supposedly transported some of this hazardous substance to their homes as a result of the plant's alleged inadequate industrial hygiene practices. The basis of liability, according to the state and the court, is that the small quantities of the chemical that left the plant on the workers' clothing qualified as a release of a hazardous substance. This ruling marks a significant expansion of traditional superfund liability.

SUMMARY

Complaints filed alleging that plaintiffs suffer from sick buildings frequently name any and all parties associated with the construction and operation of the buildings in question, including architects, contractors, engineers, manufacturers, sellers, distributors, and installers. The theories of legal liability relied upon will often include strict liability, negligent liability, and any other liability claims available to the plaintiff. As a result, litigation over indoor pollution is likely to continue and expand. This trend raises questions about the best way to resolve indoor air pollution issues. The trend may be unfortunate for defendants and plaintiffs alike. It may be unfortunate for defendants because most of the defendants who will find themselves in court over sick-building problems cannot truly be considered responsible for these problems. Nonetheless, they will be required to bear the cost of litigating or perhaps settling these claims. Increased resort to litigation may be unfortunate for plaintiffs who might have legitimate claims because of the delays, uncertainties, and high costs of litigation. Whatever the merits of concerns for indoor pollution issues, these concerns may best be resolved in forums other than local courthouses across the country.

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