Sick Building Case

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Defending the Sick Building Case

Introduction

Complaints from office workers concerning building environment symptoms began being reported in the early 1970s. Two trends were commonly blamed for the rise of the phenomena. First was the explosion in the variety and quantity of synthetic materials used in office buildings following World War II. Second, was the fuel crisis of 1973-74 which began a dramatic change in building construction and operation to promote energy efficiency.1

Complaints began to flood public health agencies in the late 1970s. Recent years have brought even wider recognition that contamination of indoor air quality may be a significant public health threat. The Occupational Safety and Health Administration (OSHA) has estimated that roughly 30% of our nation’s 4.5 million existing commercial buildings may have air quality problems to varying degrees.2 One estimate believes 20 to 50 million people may be expected to complain of symptoms associated with sick building syndrome (SBS).3 The National Institute for Occupational Safety and Health (NIOSH) reported that requests for investigation into air quality quadrupled in 1993, which it attributed to increased “media coverage of so-called sick building syndrome.”4

As public awareness increases, so too will litigation. Handling the suits and claims will involve a wide range of defense lawyers and areas of professional expertise. In addition to the general negligence claims against contractors and subcontractors, there will be professional liability claims against architects and engineers, product liability claims against manufacturers and distributors of building materials and suppliers of furnishings as well as claims against building owners and developers. Insurance coverage questions are sure to arise as will bond claims. The potential exists for much work in a broad spectrum of legal specialties.

Medically What is SBS?

There is no universally-accepted definition of sick building syndrome. Generally, it encompasses a wide range of acute symptoms frequently reported by workers in modern office buildings. Physicians divide these symptoms into five groups: (1) irritation of eye, nose, and throat; (2) neurasthenic symptoms (headaches, dizziness, fatigue, confusion and nausea); (3) skin irritation; (4) hypersensitivity reactions (non-asthmatic with asthma-like symptoms); and (5) unpleasant odor and taste sensations.5 The term is used to describe a situation where more than 20% of a building’s occupants suffer headaches, mucus membrane irritation, fatigue, dizziness and nausea.6 However, it is part of a much bigger issue relating to a much larger problem of indoor air pollution. Americans spend 90% of their time indoors and logically, indoor concentrations of air pollutants are usually higher than outdoor concentrations.7 While the syndrome has been recognized for over a decade, there are relatively few articles discussing SBS in respected medical journals. This could result from doubt within the medical profession about the seriousness of SBS compared to other medical problems facing society.8

SBS is not a disease, but merely a set of circumstances which may suggest an unhealthy environment in a building. It has been called a “diagnosis of exclusion” because a physician diagnoses SBS only after eliminating all other possible causes for the symptoms.9 Under the current state of medical science, physicians cannot perform laboratory tests which will confirm or refute a diagnosis of SBS. By its definition, SBS presumes that no specific underlying illness can explain the symptoms.10
It is incorrect to think of SBS as a single phenomenon. Rather, the term is a catch-all phrase used to describe all unexplained outbreaks of the aforementioned symptoms. It is not a distinct illness, but rather a set of symptoms. It has been suggested science may eventually discover that what we now call SBS is actually a set of predictable human responses to various environmental stress factors found in modern office buildings. However, at present it is a vague human reaction presumed to be caused by indoor environmental factors.

**Environmental Building Characteristics**

The causes of problems with indoor air quality are complex, multi-factored and in “many cases . . . remain unknown.” However, several building features are often correlated with the sick building syndrome. They usually include office furnishings, physical environmental parameters and ventilation systems. Scientists have analyzed volatile organic compounds (VOCs), tobacco smoke and biological agents. VOCs are emitted from building materials, compounds, paints, stains, pressed wood products, adhesives, caulks, office furniture, and carpeting. It has been estimated that more than 900 different organic compounds can be found in office air.

Chemical contaminants can be introduced into the work environment from both indoor and outdoor sources. Office products such as typewriter correction fluids, photoduplication and laser printing toners, carbonless copy paper are all alleged to release VOCs. Building maintenance materials such as cleaning solutions, disinfectants and polishes are additional potential sources of airborne contaminants. Following the proliferation of computers and other high tech office equipment, it was discovered that hot spots could be caused releasing noxious fumes from glue-backed carpeting and wall coverings into the ambient air.

In addition to gaseous forms of indoor air pollution, airborne fibers may be a possible cause of some SBS symptoms. One recent study found a correlation between SBS symptoms and microscopic fibers from materials commonly used to make acoustical ceiling tiles and insulation such as silicon oxides and calcium oxides.

Biological contaminants may also cause problems. Bacteria, viruses, fungi, protozoa, insects and dust mites may be circulated through the ventilation system of buildings.

Presumed energy efficient practices may compound the problem. Delaying HVAC system start-up and early shut down to let it “coast” became standard operating procedure in many buildings. Ventilation was designed to rely more heavily upon recycling warm air than bringing in outside air. Air ductwork seldom had access ports to facilitate vacuuming deposited dust and other matter.

The question arises as to what involvement these contaminants have in causing the symptoms. The answer is rarely clear cut and depends upon many factors. Any set of complaints by building occupants usually yields controversial and differing opinions concerning causation and responsibility.

**Theories of Liability and Parties**

The theories which can be advanced are limited only by the creativity of the plaintiff’s attorney. However, usual theories include breach of express or implied warranty, breach of contract, negligence, strict liability, nuisance, fraud, misrepresentation and battery.

In addition to the usual personal injury damages, plaintiffs may seek recovery for intentional or negligent infliction of emotional distress, fear of future injury such as cancer or pulmonary problems, or the need for future medical monitoring.

Plaintiffs who can bring SBS lawsuits are varied. They may include building owners, lessees, tenants, employees or unions. Although typical plaintiffs are building occupants or workers, there exists a potential for claims by employers alleging decreased worker productivity, business interruption, lost profits or other economic loss due to exposure to indoor contaminants. The EPA estimates annual productivity losses due to indoor air pollution to be in the area of $60 billion annually. Although this is only an estimate, it suggests tremendous exposure for those involved with building design, construction, and furnishing materials.
As proof of an SBS case is very complex and the origins of the symptomatology may be cloudy, plaintiffs generally sue a wide range of parties involved with the sale, design, construction or operation of the building. Real estate developers, architects, engineers, project managers, general contractors and subcontractors are all typical defendants. Manufacturers and distributors of products used in the construction of the structure and furnishing of the interior are likely targets. Tenants may assert claims against landlords, real estate agents or brokers who were not involved with the design or construction of the building but who may have made various statements or representations during the sale of the building or negotiation of the lease.

In addition to the claims by plaintiffs against the defendants, with mandatory counterclaims or third-party actions for indemnity and contribution, the litigation grows more complex. Analyzing the various theories of liability and potential defenses presents a formidable task.

Analyzing and Organizing the Defense

The potential plaintiffs in an SBS case are numerous as are the theories they may advance. Multiple defendants filing counterclaims and third-party actions further complicates the litigation. When analyzing the variety of potential causative factors which may be involved with the symptomatologies presented, management of the litigation will be challenging.

Proving an SBS claim by a plaintiff can be difficult. Although it is recognized as a legitimate health issue, proving the air in a particular building is harmful presents a significant challenge. There is not a single discipline which, by itself, can provide the overall perspective needed to analyze and recognize the existence of the syndrome. Experts in indoor air quality, toxicology, medicine, and engineering will need to study the HVA systems, analyze air samples and then coordinate findings. Air contamination can be caused by a complexity of situations requiring an overall analysis of the building. This requires plaintiffs, as well as defendants, to retain numerous experts in a variety of fields. In that connection, bear in mind that an expert qualified to testify about one subject may not be qualified to testify on a related, but different subject.20

Identification of a particular chemical irritant as the cause of SBS presents a difficult challenge for plaintiffs. As earlier noted, SBS is a diagnosis of exclusion which requires the expert to base an opinion upon the inability to establish specific causes. Plaintiffs’ attorneys may attempt to prove SBS through the temporal relationship between symptoms and the building environment. However, the temporal nature of the symptoms standing alone should not be adequate proof.

Usually when analyses are made of an alleged sick building, the contaminants are a fraction of those established for specific substances. Regulations allow workers to be exposed to certain levels of contaminants which are medically accepted to be below a level which would cause harm. Because of this, some plaintiffs’ experts argue that the combination of chemicals in the air of a particular office can create a harmful synergistic effect. However, this theory is generally not accepted by scientific experts and a vigorous pre-trial challenge to the testimony should be advanced pursuant to Daubert v. Merrell Dow Pharmaceuticals, Inc.21 or our own Illinois decisions regarding the necessary foundation for expert testimony.22

The defense can take comfort in some recent studies. The New England Journal of Medicine reported a study in four office buildings where symptoms were reported by workers. Eighty-four percent of the workers participated in the study. The supply of outdoor air was fluctuated, and the conclusion was that increases in the supply of outdoor air did not appear to affect workers’ perceptions of their office environment or their reporting of symptoms.23

Statute of Limitations

An analysis of plaintiffs’ medical records can reveal when the SBS symptoms began. They may also contain statements as to when plaintiffs became aware of their symptoms and that they may have been caused by a building environment. A statute of limitations defense may be developed where a plaintiff knew or should have been put on notice as to the cause of the symptoms. The discovery rule will not protect a plaintiff who had
sufficient information to be placed on inquiry that a cause of action existed. While a plaintiff may be aware of symptoms, and even question causation, the identity of the appropriate defendant may not be known. The discovery rule does not apply where an injury is known but the identity of the tortfeasor is unknown.

Statutes of Repose

There are statutes of repose which may afford a defense to SBS claims. The applicability of each of the statutes depends upon the client’s relationship to and involvement with the project.

735 ILCS 5/13-214 requires that any action “based upon tort, contract or otherwise” against someone involved with the “design, planning, supervision, observation or management of construction, or construction of an improvement to real property” must bring suit within four years of the time the person knew or should have known of the act or omission. It also provides that suit must be brought within ten years from the alleged actionable conduct although there is a safety valve if the discovery occurs within ten years in which case suit may be filed within four years of the discovery. Bear in mind that the repose begins to run upon the completion of the defendant’s work. Therefore, in a claim against an architect, the time begins to run when all designs and plans were finished rather than completion of the construction project. Similarly, the repose period begins to run against a contractor when it has completed the construction activity, not the final paperwork.

The product liability statute of repose, 735 ILCS 5/13-213, may afford a defense to a product or material supplier. Any action based upon strict liability in tort must be brought within twelve years from the date of the first sale or delivery of the product or within ten years from the original date of sale or delivery to the initial user, whichever period expires earlier. Further, suits must be commenced within two years from the date plaintiff knew or reasonably should have known of the injury, but in no event more than eight years after the injury. However, the statute does not bar negligence claims.

Warranty claims under the Uniform Commercial Code are subject to the four-year repose provisions of 810 ILCS 5/2-725. For purposes of this provision, the cause of action accrues at the time of delivery of the product, regardless of whether the injury occurred at some later date. The “discovery rule” does not apply to this statute. Therefore, if suit is filed more than four years after delivery but less than four years from discovery of the defect, the claim is barred.

Another potentially important statute is 735 ILCS 5/8-1801. It provides that any work or service on real property or any product incorporated therein, which does not cause injury or property damage within six years is presumed to be “performed, manufactured, assembled, engineered or designed with reasonable care by every person doing any of such acts.”

Proximate Causation

Plaintiff’s burden of proving causation can be a difficult hurdle to overcome. The symptoms frequently associated with SBS are vague and non-specific, often similar to those associated with a flu or common cold. Further complicating proof is the fact that sensitivity to building conditions varies widely among the occupants. Many may not exhibit any symptoms while more sensitive persons may be complaining of SBS symptoms. This can make it difficult for plaintiffs to rely upon epidemiological studies, a favorite source of proof for plaintiffs.

Alternative exposures should be explored. For example, aside from building materials and office products, there are numerous environmental factors which can induce SBS symptoms. Inappropriate levels of artificial lighting can cause headaches and eye irritation, two common symptoms. Noise and vibration can cause nausea and dizziness, two other symptoms. Relative humidity below 20% or above 70% can lead to symptoms. Temperatures perceived by occupants as too warm or too cold can increase SBS complaints. Byproducts of the human occupants such as carbon dioxide, tobacco smoke and vapors from hairsprays, deodorants, perfumes and foods may be involved.
An analysis of plaintiff’s living and prior work environment is important. An evaluation of exposure to cigarette smoke, alcohol consumption, air pollution and similar matters may be very important as an alternative cause of the current complaints.

It is usually advantageous to get every medical record concerning plaintiff that can be discovered. You may learn that plaintiff has a long history of similar complaints pre-dating plaintiff’s exposure to the building which is the subject of the suit. A history of allergies or numerous common insignificant medical conditions could be causing present symptoms unrelated to exposure to the building in question.

A history of anxiety, depression or psychological disorders could be a cause of plaintiff’s complaints. The alleged symptoms may be imagined, exaggerated or unrelated to the building. An emotionally fragile person could be reacting to the illnesses or complaints of other workers.

A recent study analyzed a variety of environmental factors in 27 office buildings and 4,479 workers. Included were temperature, relative humidity, and formaldehyde concentration. However, the study found job stress had the strongest effect on reports of SBS. The study noted it was unclear whether job stress caused the SBS symptoms or whether stress altered the body’s response to other factors.

**Idiosyncratic Reactions**

Although no court has directly dealt with this issue in the context of SBS, idiosyncratic reactions have been a defense to claims in the cosmetic and drug areas. The decisions have held that injuries traceable to an allergy or an unusual susceptibility on the part of a user is ordinarily not compensable, regardless of whether the theory is strict liability, warranty or negligence. A defendant is not expected to foresee a remotely possible risk to an unknown few in the population.

**Federal Preemption**

Express or implied preemption may afford a defense to an SBS claim. It is typically employed in product liability cases, but it may also help a variety of potential SBS defendants. Although scientific information about SBS is not plentiful, there is increasing pressure for federal regulation. Compliance with existing and future government statutes and regulations may afford a defense. Some existing statutes include: Toxic Substances Control Act (TSCA), Federal Insecticide Fungicide and Rodenticide Act (FIFRA), the Clean Air Act (CAA), Consumer Product Safety Act (CPSC). The numerous regulations adopted pursuant to federal legislation may be of great assistance and should be analyzed.

The Occupational Safety and Health Act give the Occupational Safety and Health Administration the authority to regulate workplaces to protect worker health. While it has largely focused on regulating industrial workplaces, OSHA empowers the Secretary of Labor to promulgate standards in a non-industrial setting so that “no employee will suffer material impairment of health or functional capacity.”

On April 5, 1994, OSHA issued its notice of proposed rule making for indoor air quality which has six substantive provisions: indoor air quality compliance program, compliance program implementation, specific contaminant controls, air quality maintenance during renovation and remodeling, employee information and training, and record keeping. While it is anticipated the proposed rules will undergo significant revision before promulgation, when adopted they may be of significant help in defending SBS claims. It is projected that the new standards will be in effect sometime in 1996.

The important question which determines whether state law tort claims are preempted is whether Congress intended to occupy a particular area of the law when it enacted the federal legislation regulating that area. Preemption should be raised as soon as possible, usually as an affirmative defense. A dispositive motion based upon preemption should be filed as soon as practical. Should the motion be denied, it is important that defense
counsel convince the trial judge that the ruling is without prejudice concerning the applicability of the particular statute or regulation to the case. In that way, the defense can raise the argument at trial and in the process obtain helpful witness testimony on national policy considerations. It may also form the basis of a valuable jury instruction.

Defense Experts

The introduction of scientific evidence through the use of expert testimony is crucial in defending an SBS case. Expert witnesses act as instructors to help jurors attempt to understand specialized scientific and medical areas. It is through the testimony of defense experts that the jury will favorably resolve complex issues in areas they would not otherwise understand.

Depending upon the circumstances of the exposure and the nature of the specific complaints, there exist a potential for numerous areas of expert testimony. Chemists, physicists, industrial hygienists, engineers, toxicologists, biologists, and medical doctors of various disciplines are likely to be involved. Psychiatrists and psychologists may be helpful. The defense will need a sophisticated team to properly analyze, investigate, and prepare the case.

An industrial hygienist is certified to perform indoor air quality studies in occupational settings and is familiar with the established exposure standards such as threshold limit values (TLVs) and permissible exposure levels (PELs) for particular chemical substances. The industrial hygienist can take air samples and evaluate engineering controls which may be in place to improve indoor air quality. The health aspects of exposure to alleged indoor air pollution and the analytical techniques used to quantify the extent of exposure upon the individual within acceptable standards will be the focus of the testimony. While plaintiffs’ experts may argue the standards are not applicable, these technical methods and protocols are relevant scientific procedures.

A toxicologist can testify about the chemical characteristics of toxic substances, the extent to which they may invade human beings and the environment as well as their toxic effect. The movement of contaminating agents in the structure, the mechanism of their action on humans and a definition of the limits of their safe use will be areas of testimony. The toxicologist can analyze the dose-response relationship between exposure to chemical substances and their biological effect upon humans. This testimony is very important for jurors to understand, and hopefully reject, the relation between chemical exposure and the symptoms.

An epidemiologist studies the distribution and causation of diseases in groups of people. Usually, an epidemiological study involves an evaluation of a study group and a control group. The study group would consist of individuals exposed to the toxic agent while the control group would consist of unexposed individuals. The testimony would reveal the findings of the studies and attack the causal relationship between exposure to a particular toxic substance or substances and the alleged symptoms.

A chemical engineer can examine the composition of various building materials used in the construction and internal finishing of the structure. An assessment of the emissions and general performance of the materials under existing building conditions can be done.

Similarly, a mechanical engineer can evaluate the plans and specifications for the HVAC system, analyze the actual building conditions and equipment, and compare them with established design standards. Presumably, the expert can testify that the fresh air supply based upon outside temperature, humidity, volume and number of occupants for the specific building location meets appropriate industry standards. Even if the building deviates from the construction contract specifications, it may meet general industry standards with respect to ventilation.

An occupational physician can be helpful in diagnosing the symptoms alleged by plaintiff. After an analysis of the medical records and perhaps an independent medical exam of the plaintiff, the doctor can make a determination as to whether the symptoms are reasonably related to exposure of a particular contaminant or building condition. Hopefully, the physician will find alternative causes for the symptoms.
A psychiatrist or clinical psychologist may be helpful. The plaintiff’s symptoms may be psychological in nature. Plaintiff could be reacting to complaints and symptoms manifested by co-workers through suggestion, uncertainty or fear. Psychogenic illness and mass hysteria have been offered as alternative bases for complaints by building occupants. It has also been suggested that if complaints are left unaddressed, workers may exhibit psychological responses which can exacerbate physical symptoms.

**Contribution and Indemnity**

Whether the case is in federal court or in state court, defense counsel will be faced with a decision of whether to pursue contribution or indemnity claims against co-defendants or third-parties. With potentially differing symptomatology among numerous plaintiffs seeking recovery from a wide range of defendants, defense counsel may feel it is necessary to seek an allocation of potential responsibility in the pending litigation. As the best defense to an SBS suit is often a lack of proof of proximate causation, the defendants run the risk of helping plaintiff prove a case if fighting among them develops.

Compulsory cross-claims, counterclaims and third-party actions in both federal and state court put defense counsel in a difficult position. It may be wise to explore a contractual agreement to arbitrate contribution and indemnity claims subsequent to trial of the underlying case. In this manner, all defendants can present a unified defense to proximate causation issues. Should an adverse verdict result, the unsuccessful defendants can enforce their contractual rights for arbitration to allocate responsibility.

**Conclusion**

Defense lawyers can expect an increasing number of claims based upon indoor air quality problems or alleged sick building syndrome. The complex issues presented by this litigation include numerous potential plaintiffs, varied theories of liability, multiple scientific disciplines, a wide range of defendants with differing defenses will make case management a challenge.

Extensive factual discovery into plaintiff’s background and medical history is critical to determine the etiology of the symptoms. Expert witnesses must be retained who can analyze the discovery, marshall and analyze data, quantify the exposure and formulate opinions about the air quality of the building in relation to plaintiff’s complaints. The defense will require a talented team working in a coordinated effort to present the best case.

**Endnotes**

11. Id. at 179.
15. Hilleos Koren & Robert V. Devlin, “Human Upper Respiratory Tract Responses to Inhaled Pollutants With Emphasis on
Assessment and Control of Indoor Air Pollution 5-12 (1989).
22. For an excellent summary of Illinois law relating to expert witnesses, please see: Mark A. Lies II and John J. O'Malley,
28. Hayes v. Otis Elevator Co., 946 F.2d 1272 (7th Cir. 1991); Olson v. Owens-Corning Fiberglas Corp., 198 Ill.App.3d 1039,
30. Gates Rubber Co. v. USM Corp., 508 F.2d 603 (7th Cir. 1975); Moorman Mfg. Co. v. National Tank Co., 91 Ill.2d 69, 435
1990).
33. Id. at 319-20.
34. J.J.K. Jaakkola & O. P. Heinonen, “Sick Building Syndrome, Sensation of Dryness and Thermal Comfort in Relation to Room
40. The supremacy clause of the United States Constitution (Article VI, Clause 2) provides the basis for federal preemption.
42. 7 U.S.C. §§136-136y.
43. 42 U.S.C. §§7401-7642.
44. 15 U.S.C. §§2051-84.
45. 29 U.S.C. §651-78.
46. 29 U.S.C. §655(b)(5).
735 ILCS 5/13-204 requires that contribution and indemnity claims must be filed within two years of service of process upon the claimant or within two years after it knew or should have known of the conduct giving rise to the claim, whichever expires later.

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