

# CONTRACTOR'S LIABILITY FOR MISHANDLING TOXIC SUBSTANCE

*Lawrence Landskroner\**

## **Research References**

### *Text References*

- Tort liability of contractors and subcontractors for accidents during construction, Am. Jur. 2d, Building and Constructions Contracts §§ 132–137
- Toxic Substances Control Act, Am. Jur. 2d, Drugs, Narcotics, and Poisons § 32.5
- Liability of independent contractor to third persons, Am. Jur. 2d, Independent Contractor §§ 48–50
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### *Annotation References*

- Modern status of rules regarding tort liability of building or construction contractor for injury or damage to third person occurring after completion and acceptance of work; exceptions to “completed and accepted” rule, 70 A.L.R. 5th 261

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## I. IN GENERAL

### FACTUAL BACKGROUND

Client, a 55-year-old construction foreman for a carpentry contractor was injured at a construction site while working without protective equipment in a large, partially enclosed metal vessel when employees of the paint contractor, who were wearing respirators and protective clothing, began spraying the stainless steel surface of the interior of the vessel with an industrial sealant that contained three potentially toxic chemicals. On inhaling the fumes, the client lost consciousness and was pulled to safety by a coworker. The client was immediately hospitalized, but suffered severe and disabling pulmonary injury. He was granted permanent disability benefits under the state workers' compensation law, and his compensation lawyer has referred the client to counsel for a possible third-party liability action for personal injuries against the owner of the premises where the work was in progress, the general contractor and site manager, the paint subcontractor, and the manufacturer and seller of the industrial sealant that was being sprayed when the client was injured.

#### § 1 Introduction

◆ **Note** For a general discussion of toxic tort litigation, see *Handling Toxic Tort Litigation*, 57 Am. Jur. Trials 395.

There are many sources of poisons and emissions that are capable of polluting the environment<sup>1</sup> and even killing and injuring citizens in the workplace, including industrial carcinogens (cancer-causing agents) such as beryllium<sup>2</sup> and asbestos.<sup>3</sup> There are also a host of industrial products which can cause injury or death, such as cadmium, lead, germanium,

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#### [Section 1]

<sup>1</sup>Handling the Air Pollution Damage Case, 24 Am. Jur. Trials 243.

<sup>2</sup>Beryllium Poisoning, 48 Am. Jur. Proof of Facts 2d 401.

<sup>3</sup>Beryllium Poisoning, 48 Am. Jur. Proof of Facts 2d 401.

antimony, tellurium, and a form of beryllium called nickel carbon. Cancer may result from exposure to some of these items as well as from arsenic and selenium. Cadmium and lead, nickel from burning coal, oil, and diesel fuel, antimony and beryllium from coal may result from the pollution found in many cities. Mercury is also capable of causing significant toxicity and death. Deaths from heart disease have been related to vanadium, while high blood pressure and cancer of the digestive system have been related to nickel and vanadium. Cancer of the lung is related to titanium in the air. Airborne arsenic, tin, and lead can cause serious health problems.

Other sources of harmful pollution include factories and mines that emit wastes of cyanides, copper, arsenic, lead, and cadmium. These wastes have a harmful effect on every living thing with which they come in contact. Some of the acids, alkalis and cadmium salts from tanning and electrical plating, cyanides, phenols, sulfates, tar, acids, ammonia, copper, lead, and perhaps zinc from mine dumps have been dumped indiscriminately in rivers already polluted by sewage. Oil films prevent the water from absorbing oxygen from the air and detergents cover the rivers with foam producing aquatic deserts and silent streams.

One of the most harmful pollutants is lead, which can find its way into the air we breathe and the food we eat.<sup>4</sup> We absorb about 10 percent of the lead we eat and about half of what we breathe. Workers such as painters who do not wear protective clothing or devices can get colic and paralysis. Spring and lake water can dissolve lead from pipes and cause lead poisoning to those who use the water. When oil is burned, 25 percent of the lead goes into the atmosphere. Lead has been found in lobsters, geese, rice, and breakfast cereal. The lead added to gasoline can pollute our bodies.

Within this toxic environment, many construction workers are exposed to hazardous substances, such as industrial chemicals which can cause cancers, brain injury, liver damage, skin damage, and insult to the lungs and the heart.<sup>5</sup> Such workers are also exposed to products that become hazardous if carelessly handled or applied. This article explores and suggests solutions to the problems presented in litigating a case involv-

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<sup>4</sup>Lead Poisoning, 46 Am. Jur. Proof of Facts 2d 145.

<sup>5</sup>1 Philo, Lawyers Desk Reference (7th ed.) § 9:16.

ing the exposure of a construction worker to hazardous chemicals.<sup>6</sup>

## § 2 Scope of the article

The scope of this article is limited to a discussion of the third-party liability aspects of an injury to a construction carpenter who was exposed to toxic fumes from an industrial sealant caused by the negligence of employees of a painting contractor in the application of the substance at a worksite. Although such cases frequently involve the owner of the property under construction,<sup>7</sup> the general contractor, and a supervising architect or site manager,<sup>8</sup> the liability under consideration in this article principally concerns the negligence of the painting contractor, with some additional consideration given to the product liability of the manufacturer of the solvent involved in the occurrence. While the article deals with a worker's exposure to a hazardous chemical, it is not intended to be a vehicle for a general discussion of occupational health and safety or of the vast area of toxic tort litigation.<sup>9</sup>

As indicated above this article presents its subject from the perspective of a plaintiff's lawyer whose client has been exposed to a toxic chemical at a construction worksite, suffering severe and disabling pulmonary disease as a result of the exposure, and is limited to the third-party liability aspects of

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<sup>6</sup>Exposure to toxic chemicals usually occurs from inhaling vapors or fumes, ingesting the chemicals, or absorbing them through the skin. Hawes & Chu, *Proximate Cause in Toxic-Tort Cases*, 23 *Trial* 68 (Oct 1987).

<sup>7</sup>See § 10.

<sup>8</sup>See § 11.

<sup>9</sup>See bibliographic appendix in §§ 107–115 for numerous legal, technical and medical references in the field of toxic tort and hazardous chemical litigation.

For a general treatise on toxic tort litigation, see G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* (Shepard's/McGraw Hill, 1984).

the client's injury;<sup>10</sup> it does not treat the handling of a workers' compensation claim for such an injured worker.<sup>11</sup>

Following the division setting forth the illustrative fact situation<sup>12</sup> and the legal background material,<sup>13</sup> the article discusses the handling of a third-party liability action involving the exposure of a worker to a hazardous chemical from case intake,<sup>14</sup> through investigation,<sup>15</sup> pleadings,<sup>16</sup> discovery,<sup>17</sup> through trial preparation<sup>18</sup> and trial.<sup>19</sup> The article also provides the reader with a list of expert witnesses in industrial hygiene and toxicology<sup>20</sup> and a bibliography of selected legal, medical, technical and scientific references in the fields of occupational health and safety and toxic tort litigation.<sup>21</sup>

## § 2.5 Federal pre-emption of labeling defect claims

### Cases

Products liability claims under state law seeking labels for hazardous substances which are more elaborate or different from those required under the Federal Hazardous Substances Act, 15 U.S.C.A. § 1261(p)(1)(F), are preempted by FHSA. *Moss v Parks Corp.* (1993, CA4 Va) 985 F2d 736, CCH Prod Liab Rep ¶ 13397, 23 ELR 20903, amd (CA4 SC) slip op and cert den (US) 125 L Ed 2d 693, 113 S Ct 2999.

<sup>10</sup>See 1 Philo, *Lawyers Desk Reference* (7th ed.) § 9:16 for discussion of third-party liability litigation exposure to toxic chemicals in the workplace.

*Failure To Provide Safe Place To Work*, 2 Am. Jur. Proof of Facts 2d 517.

For a concise discussion of third-party liability in toxic exposure cases with a checklist of inquiries concerning liability, see Hawes & Chu, *Proximate Cause in Toxic-Tort Cases*, 23 Trial 68, 71 (Oct 1987).

<sup>11</sup>On handling workers' compensations claims generally, see *Workmen's Compensation—Back Injuries*, 10 Am. Jur. Trials 589; *Workmen's Compensation—Employment Party Injury Litigation*, 26 Am. Jur. Trials 645.

*Workers' Compensation: Disability Resulting from Mental Stress*, 25 Am. Jur. Proof of Facts 2d 1; *Workers' Compensation: Injury Occurring during Social, Recreational, or Athletic Activity*, 42 Am. Jur. Proof of Facts 2d 48; *Workers' Compensation: Special Mission Exception to Going-and-Coming Rule*, 32 Am. Jur. Proof of Facts 2d 199.

<sup>12</sup>See §§ 3–8.

<sup>13</sup>See §§ 9–22.

<sup>14</sup>See §§ 23–29.

<sup>15</sup>See §§ 30–44.

<sup>16</sup>See §§ 45–48.

<sup>17</sup>See §§ 49–75.

<sup>18</sup>See §§ 76–83.

<sup>19</sup>See §§ 84–106.

<sup>20</sup>See § 108.

<sup>21</sup>See §§ 109–115.

FIFRA, 7 U.S.C.A. § 136v(b), prohibits any state requirement in addition to or different from federal requirements for warnings label and dictates preemption of any state common law cause of action resting on alleged failure to warn or communicate information about product through its labeling. However, claims of negligent testing, manufacturing and formulating are not preempted. *Worm v American Cyanamid Co.* (1993, CA4 Md) 5 F3d 744, CCH Prod Liab Rep ¶ 13651, 24 ELR 20120.

Defense motions for summary judgment were granted as to claims brought by nurse who alleged that she had suffered personal injury as result of using hospital disinfectants containing chemical glutaraldehyde. Crux of complaint involved inadequate warnings as to use of and exposure to glutaraldehyde solution products which were “pesticides” within meaning of Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) and which were registered under FIFRA. Plaintiff’s claims of negligence, strict liability, and breach of implied warranty were preempted under FIFRA; this pre-emption extended not only to labeling of products, but also to claims based on documents and statements not attached to or enclosed with products, such as material safety data sheets or advertising and promotional material. Further, although FIFRA did not pre-empt plaintiff’s breach-of-express-warranty claims, summary judgment was nonetheless required as to those claims as well, since existence of express warranty was not established. Labels on hospital disinfectants were required under federal law and were not directed at consumers; inducing purchases was not their purpose. They were, therefore, not part of basis of bargain between manufacturers and potential buyers. Moreover, none of statements in any of defendants’ material safety data sheets or promotional materials could be construed as constituting express warranty as to product safety. *Sowers v Johnson & Johnson Medical* (1994, ED Pa) 867 F Supp 306, CCH Prod Liab Rep ¶ 14092.

State common law tort claims for inadequate labeling of herbicide were neither expressly nor impliedly preempted by FIFRA (7 U.S.C.A. §§ 136 et seq.). Defendant manufacturer failed to overcome strong presumption that Congress intended to leave intact state’s ability to compensate its citizens for injuries resulting from the use of pesticides and herbicides. Congress has not occupied field of regulation so pervasively as to leave no room for states to act in field of tort compensation. Thus there was no conflict between determination by Environmental Protection Agency that defendant’s label was adequate for purposes of FIFRA and jury determination in instant case that label did not meet warning standards of state tort law. *Ciba-Geigy Corp. v Alter* (1992) 309 Ark 426, 834 SW2d 136, CCH Prod Liab Rep ¶ 13307.

Common law action for failure to warn may be brought for manufacturer’s noncompliance with Federal Hazardous Substances Act (FHSA) requirements; requirement that manufacturer provide warning label which is reasonably adequate under circumstances to inform users of risks involved and steps to be taken to avoid those risks can be characterized as “identical to” labeling requirements established in FHSA and is therefore not preempted by FHSA. *Jenkins v James B. Day & Co.* (1994) 69 Ohio St 3d 541, 634 NE2d 998, CCH Prod Liab Rep ¶ 14027.

A products liability action for inadequate labeling of a hazardous

substance covered by the Federal Hazardous Substance Act (FHSA) brought pursuant to state law that imposes labeling requirements identical to the requirements of the FHSA is not preempted, where decedent died as the result of inhaling fumes from a paint stripping product, and her estate brought a state products liability action contending that the product was improperly labeled under the FHSA, because the FHSA provides a limited preemption of state law in the area of labeling of hazardous substances. *Jenkins v James B. Day & Co.*, 69 Ohio St 3d 541, 634 NE2d 998.

State law claim that pesticide manufacturer had failed to comply with Environmental Protection Agency (EPA) requirements, in that it had negligently or fraudulently tested pesticide at time of registration process under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and that adequate testing and proper design would have caused manufacturer to alter pesticide so it would be safe, was not preempted by FIFRA; claim not only alleged that label was inadequate, based on information given during application process, but also sought to enforce FIFRA requirement of adequate testing prior to EPA approval. U.S.C.A. Const. Art. 6, cl. 2; Federal Insecticide, Fungicide, and Rodenticide Act, § 24, as amended, 7 U.S.C.A. § 136v. *Romah v. Hygienic Sanitation Co.*, 705 A.2d 841 (Pa. Super. Ct. 1997).

FIFRA did not preempt farmers' claims arising out of damages to crops from neighbor's application of herbicide, where neighbor purchased herbicide from retail supplier and provided it to aerial applicator, and thus was consumer, not supplier, and where farmers did not complain that labeling was inadequate on herbicide; rather, farmers alleged that labeling demonstrated that neighbor and aerial applicator were negligent in applying herbicide. Federal Insecticide, Fungicide, and Rodenticide Act, §§ 2 et seq., as amended, 7 U.S.C.A. §§ 136 et seq. *Foust v. Estate of Walters ex rel. Walters*, 21 S.W.3d 495 (Tex. App. San Antonio 2000); West's Key Number Digest, Agriculture ¶9.13.

## II. ILLUSTRATIVE FACTUAL SITUATION

### A. GENERALLY

#### § 3 In general

This article is concerned with the preparation of and trial of a case involving a factual situation in which a worker was injured at a construction worksite when he inhaled toxic fumes which were negligently sprayed in the area by employees of a painting contractor working in the same area. This division of the article presents the basic factual situation of the client's exposure,<sup>22</sup> technical information respecting the toxic substance involved and its application in a construction setting.<sup>23</sup>

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<sup>22</sup>See § 4.

<sup>23</sup>See §§ 5–8.

**§ 4 Toxic exposure incident**

The client, a 55-year-old foreman for a carpentry contractor, was working at a construction site containing a large metal vessel in which employees of the painting contractor were working with an industrial sealant that contained a combination of three toxic chemicals: methylene chloride, methyl ethyl ketone and methyl isobutyl ketone. The sealant was used to protect the stainless steel surface of the vessel during construction. The painters spraying the sealant within the vessel were supplied with special respirators to filter out the chemicals. The chemicals were so toxic that the respirator filters would be effective for only two to three hours. The employees of the carpentry contractor, such as the client, working within the vessel on projects other than the spraying of the sealant were not provided with respirators or protection of any type.

The chemicals in the sealant when exposed either to an open flame or a very hot surface, convert to phosgene gas, also known as mustard gas. An electrical arc such as one used in welding would provide sufficient temperatures and conditions necessary to convert fumes from the sealant into mustard gas. This type of welding was in process in parts of the same enclosed area of the vessel in which the painting contractor was spraying the sealant.

Officials of the painting contractor were, or should have been, aware of dangers to unprotected workers exposed to the toxic substances contained in the sealant. They had been specifically warned by employees of the chemical manufacturing company, which produced the sealant, that spraying the substance in an enclosed area where unprotected persons were working was particularly hazardous. Despite such warnings the painting contractor exposed individuals to the toxins of the sealant, and since exposure to the sealant would make the employees too sick to work, their work was pushed back from the first shift to the second shift. This resulted in the painting contractor receiving an extra 20 percent of labor costs under the construction contract.

The client reported that before his exposure he was present at a monthly safety meeting when employees of the carpentry contractor complained about the spraying of the sealant to officials of the owner of the plant under construction and the painting contractor and that on a later occasion the employees refused to enter the area while spraying of the sealant was be-

ing conducted. He stated that the spraying ceased for a time while members of the carpenter crew were in the area, but that it also resumed without restriction at a later date.

The client states that on the day of the accident he and his crew were working in the vessel when, without warning, employees of the painting contractor began spraying with the sealant. In a few minutes the area was enveloped in a fog. Shortly after the client noticed the fog, he passed out. He was pulled from the area by fellow workers and sent to the emergency room of a nearby community hospital. He regained consciousness in the hospital. He was earning \$500 per week when the exposure occurred and he has not worked since the accident. He presently suffers from disabling pulmonary conditions resulting from the exposure. He has been receiving workers' compensation medical and disability benefits. He has been referred to counsel by his workers' compensation attorney for consultation about a possible third-party liability action against the owner of the property where the construction was in progress, the general contractor of the project, the painting contractor, and the manufacturer of the sealant.

#### Cases

Application of Product Liability Act to bar salvage workers' recovery for exposure to polychlorinated biphenyls (PCBs) when dismantling sealed electrical transformers to recover copper coils did not amount to unconstitutional abolition of jural right; while workers claimed that right to recover for injuries inflicted by negligence was jural right, provision of Act that barred workers' recovery was merely codification of common law principle that manufacturer is not liable when product is subject to unauthorized alteration or modification. KRS 411.320(2). Monsanto Co. v. Reed, 950 S.W.2d 811 (Ky. 1997), reh'g denied, (Oct. 2, 1997).

**Contaminated clothing:** Claims of child of former employee of chemical company and spouse against chemical company and related corporations seeking damages resulting from child's contraction of mesothelioma allegedly caused by exposure to asbestos accumulated on parent's clothing while parent was at work "arose" in South Carolina, and thus claims were not precluded by Door Closing Statute, even though child was diagnosed in Virginia, where alleged exposure originated in South Carolina, and exercise of jurisdiction would be entirely consistent with, and would serve, goals of Door Closing Statute. Code 1976, § 15-5-150. Murphy v. Owens-Corning Fiberglas Corp., 346 S.C. 37, 550 S.E.2d 589 (Ct. App. 2001); West's Key Number Digest, Courts ⇐6.

### § 5 —Application to construction setting

The client in the model trial case herein was exposed to toxic fumes created by the spraying of an industrial sealant used to coat the stainless steel surface of a large, partially enclosed

metal vessel at a construction site. The sealant contained three chemicals which were later incriminated in the toxicity of the fumes from the spraying of the sealant: methylene chloride, methyl ethyl ketone and methyl isobutyl ketone.<sup>24</sup> To provide counsel with information concerning the sealant and its application,<sup>25</sup> the client's worker's compensation attorney has provided counsel with documents obtained from insurer for the client's employer, consisting of written instructions for application of the sealant that was being sprayed at the time of the client's exposure,<sup>26</sup> the manufacturer's recommendations concerning application of the product,<sup>27</sup> and the manufacturer's material safety data sheet.<sup>28</sup>

## B. INSTRUCTIONS AS TO USE OF TOXIC SUBSTANCE

### § 6 Contractor's Application Instructions

The painting contractor in the model trial case had issued written instructions for the application of solvents used at the worksite, including the sealant that was being sprayed at the time of the client's exposure. The instructions (set out below) particularly concern protective clothing required in the application and contain several warnings against exposing the product to heat or hot surfaces. They also warn of the toxicity of methylene chloride, an active ingredient of the sealant being sprayed at the time of the client's exposure. Significant passages of the instructions are set out in italics.

#### INSTRUCTIONS

##### I. APPLICATION

Coating is to be applied in accordance with manufacturers recommendations (see Enclosure No. 1 of this procedure), the safety precautions of Section II and the following:

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<sup>24</sup>See § 112 for sources of information concerning methylene chloride and other actual or potentially toxic chemicals.

<sup>25</sup>Pier, Cowles, Key & Nothstein, "Recognition and Evaluation of Hazards" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 1.01-1.26 (Shepard's/McGraw Hill 1984).

<sup>26</sup>See § 6.

<sup>27</sup>See § 7.

<sup>28</sup>See § 8.

On the use of manufacturers' material safety data sheets in toxic tort litigation, see Hawes & Chu, *Proximate Cause in Toxic-Tort Cases*, 23 *Trial* 68, 71 (Oct 1987).

1. Coating is to applied in three (3) coats of approximately three (3) mils thickness each, resulting in a total applied dry film thickness (DFT) of eight (8) to ten (10) mils, corresponding to an application rate of approximately three (3) gallons per 100 square feet.

2. Apply each coat thoroughly and uniformly to the surface. Each coat shall be applied at a rate of approximately one gallon per 100 square feet. Overlap each pass approximately 50 percent.

3. Each coat shall be applied using passes which are at right angles to those used for the preceding coat.

4. Care shall be taken to apply a coating thickness on the edges of plates which is at least as thick as that applied to the surface. Failure to do this could result in difficulty with the removal of the coating from the edges.

5. Allow each coat to dry to touch before application of the subsequent coat.

6. After the coating has dried, visually inspect for completeness of coverage and take dry film thickness (DFT) measurements using a paint inspection gage or other suitable instrument. DFT is to be not less than seven mils; there is no maximum DFT.

7. Apply an additional coat, if necessary, to meet coverage and thickness requirements. Small areas may be touched up using a brush.

## II. SAFETY PRECAUTIONS

1. The following safety precautions apply to the storage and handling of solvents specified in this procedure. These general precautions are to be supplemented by specific safety procedures where applicable.

2. Fire and explosion hazards are inherent in solvent cleaning operations. No work shall proceed until safe conditions have been established.

3. Protective equipment such as aprons, gloves, respirators, chemical safety goggles, face shields and protective creams shall be used as required to minimize exposure to the solvent. Protective equipment which will contact the material surface shall be clean, in order to avoid contamination of the surface. Care shall be taken not to contaminate material surface with protective creams.

4. Use only approved safety containers for storage of the solvent. Keep the container closed when not in use.

5. Use only the minimum amounts needed for the job. Do not spill. Carefully remove and safely dispose of rags or cloths wetted with solvent.

6. *Smoking, welding or burning shall be prohibited in the work areas.*

7. *Never use solvents on a hot surface. Highly explosive fumes may be created.*

8. Avoid exposing the skin to solvents. Protective gloves or ointments should be used. Care should be taken not to contaminate the material surface with ointments.

9. Avoid unnecessary breathing of solvent vapors.

10. *Following the wiping of surfaces with solvent, allow at least 15 minutes with good ventilation before performing welding or similar operations on the surfaces or immediately adjacent surfaces.*

11. The following precautions should be observed during the application of \_\_\_\_\_ *[product containing toxic ingredient]*. These general precautions are to be supplemented by specific safety procedures where applicable.

12. \_\_\_\_\_ *[Product containing toxic ingredient]* is nonflammable in its liquid state but may be slightly flammable in its spraying state. Therefore, smoking, welding, or burning shall be prohibited in the application area.

13. Always provide adequate fresh air ventilation to prevent accumulation of vapors or fumes.

14. Avoid breathing vapor or spray mist.

15. Avoid prolonged contact with the skin.

16. Keep the container closed when not in use.

17. *Spray operators shall wear protective clothing, gloves, respirators and face shields.*

18. \_\_\_\_\_ *[Product containing toxic ingredient]* contains Methylene Chloride, personnel experiencing discomfort or other toxic symptoms after exposure should immediately obtain medical attention.

*[Remainder of instructions omitted.]*

## § 7 — Solvent Manufacturer's Recommendations

The following are the manufacturer's written recommendations concerning application of the sealant being sprayed at the time of the client's exposure (the "enclosure 1" referred to in the application instructions).

ENCLOSURE No. 1  
MANUFACTURER'S RECOMMENDATIONS

## 1. Storage Conditions

Temperature—20° F to 100° F.

Humidity—0–100%.

Shelf Life—Do not exceed 12 months.

\_\_\_\_\_ [*Product containing toxic ingredient*] may be stored indoors or outdoors.

## 2. Flash Point

\_\_\_\_\_ [*Product containing toxic ingredient*] No. 67-00—None.

Reducer No. 80-197—None.

## 3. Surface Preparation

a. Surface shall be clean and free from dirt, grease, oil, and moisture.

b. Coating shall be applied as soon as possible after cleaning and drying.

## 4. Preparation for Application

a. Agitate \_\_\_\_\_ [*product containing toxic substance*] in the drum using heavy-duty agitation equipment for 15 to 20 minutes or until it is about the consistency of heavy cream. Continuous agitation and circulation during spraying operations is essential.

b. Thinning of \_\_\_\_\_ [*product containing toxic ingredient*] is not normally required if agitation of the material is sufficient and the temperature of the material is above 60° F. However, if thinning is required, up to one pint per gallon of No. 80-197 reducer may be added. Mix thoroughly.

c. The manufacturer has stated that acceptable substitutes for No. 80-197 reducer are MEK (Methyl Ethyl Ketone) and Methylene Chloride. Thinning with MEK results in the loss of non-flammability in the liquid and spraying states. Normal precautions for handling and spraying flammable liquids shall be observed. Nonflammability in the dry state is not affected.

## 5. Application

a. General: \_\_\_\_\_ [*Product containing toxic ingredient*] should be applied by conventional spray painting methods using an air pressure spray gun with an agitated pressure pot or pump.

b. Normal Temperature Conditions: (a) Surface: 40° to 100° F; Ambient: 40° to 100° F.

## c. Conventional Spray:

Hold gun six to eight inches from surface and adjust to spray a 6 to 8 inch fan.

Hold gun perpendicular to surface and spray steadily with a rhythmic motion that carries each pass well across and beyond the area being sprayed.

Overlap each succeeding pass by 50%.

The coating should have a shiny, "wet" appearance after spraying.

Spray horizontal surfaces first to minimize overspray. Carry each pass over and slightly down vertical surfaces. Then spray vertical surfaces.

Coat edges carefully to avoid thin areas at sharp corners.

Sagging or curtaining will occur when there is too much fluid and too little air atomization. To control sagging adjust the flow control on the gun until the air can properly atomize the fluid.

Successful application of \_\_\_\_\_ [*product containing toxic ingredient*] has been accomplished using a power flow pump at two to one ratio.

Air supply line to each pressure head should be a minimum of  $\frac{3}{4}$  inch ID.

Minimum line ID's from pump head to gun for a maximum line length of 75 feet are: Fluid— $\frac{5}{8}$  inch, Air— $\frac{1}{2}$  inch.

External atomization spray guns give better results than internal atomization guns.

Use fluid pressure of 40–50 psig.

Use an atomizing pressure of 80–800 psig.

d. Brush—For touch up only, medium bristle brush. Avoid rebrushing.

## 6. Clean up

Use \_\_\_\_\_ [*specified reducer or solvent*].

## 7. Drying

\_\_\_\_\_ [*Product containing toxic ingredient*] dries to touch in approximately 4 minutes and to handle in approximately 22 minutes.

**Cases**

Expert testimony and report by former Environmental Protection Agency (EPA) employee improperly attempted to invade province of court by interpreting meaning and applicability of Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) for the jury in concluding

whether certain actions constituted misbranding of pesticides in violation of FIFRA and whether statements of formula filed with EPA were misleading, and thus, proffered testimony was inadmissible; furthermore, even if substance of proposed expert's testimony was within proper scope, expert himself was not qualified to deliver those opinions. Fed.Rules Evid.Rule 702, 28 U.S.C.A. United Phosphorus, Ltd. v. Midland Fumigant, Inc., 173 F.R.D. 675 (D. Kan. 1997).

Genuine issues of material fact as to whether manufacturer of carpet treatment product knew that product, if inhaled, could cause respiratory damage, whether warning label on product was adequate to advise user of potential danger, whether worker could have protected himself from danger by wearing filter mask, and whether worker's injury was result of his inhaling product precluded summary judgment in favor of manufacturer and distributor in products liability action brought by worker claiming that inhalation of product caused him to develop reactive airways disease (RADs) or aggravated preexisting respiratory conditions. Fuller v. Chemical Specialities Mfg. Corp., 702 A.2d 1239 (D.C. 1997).

### § 8 Manufacturer's Material Safety Data Sheet

The manufacturer's material safety data sheet concerning a product containing hazardous chemicals or toxic substances will be extremely important for identifying the particular chemicals and substances used in the manufacturer or compounding of the product and in establishing the circumstances and conditions under which the use of the product may create a particular risk of harm. Set out below is the manufacturer's material safety data sheet from the model trial case.

#### CHEMICAL CORPORATION SAFETY DATA SHEET

Product Designation:

\_\_\_\_\_ [*Brand name*]

\_\_\_\_\_ [*Serial number*]

#### Section I. Identifying Information

Manufacturer's name: \_\_\_\_\_

Address: \_\_\_\_\_

Emergency phone number: \_\_\_\_\_

Trade names and synonyms: \_\_\_\_\_

Chemical family: \_\_\_\_\_

Chemical name and synonyms: \_\_\_\_\_

Formula: \_\_\_\_\_

#### Section II. Hazardous Ingredients

Ingredient	% By Weight	Hazard Data
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Methylene Chloride	50	100 ppm
Methyl Isobutyl Ketone	15	100 ppm
Methyl Ethyl Ketone	1	200 ppm
Inorganic Lead Compound		0.2 mg/M3

## Section III. Physical Data

Boiling Point:	Unknown
Vapor Pressure (mm Hg.):	Unknown
Vapor Density (AIR=1):	Unknown
Specific Gravity (H, O=1):	1.15
Solubility in water:	Unknown
Appearance and odor:	
Volatile by volume:	73%

## Section IV. Fire and Explosion Hazard Data

Flash point:	Not applicable
Flammable limits:	Unknown
Extinguishing media:	Does not apply
Special fire fighting procedures:	Water (fog nozzle) may be used to cool closed containers to prevent pressure buildup
Unusual fire and explosion hazard:	Keep containers tightly closed. Insulate from heat, electrical equipment, sparks and open flame.

## Section V. Health Hazard Data

Threshold limit value:	Not established for mixture
Effects of overexposure and toxicology:	Inhalation: May cause headache and dizziness.

Emergency and first aid procedures:

Skin or eye contact: Primary irritation.

Fumes: Remove from exposure. Keep warm and quiet.

Splash (eyes): Flush immediately with water for at least 15 minutes.

Splash (skin): Wash affected area with water.

Contact a physician.

#### Section VI. Reactivity Data

Stability: Stable

Conditions to avoid: Avoid spray equipment containing aluminum or zinc parts which come in contact with paint.

Incompatibility: May react with aluminum or zinc metal resulting in corrosion. Consult your spray equipment manufacturer for further information about this hazard.

Hazardous decomposition products: Toxic phosgene gas—if contact is made with flame or hot surface.

Hazardous polymerization: Will not occur.

#### Section VII. Spill or Leak Procedures

In case of spill: Remove all sources of ignition. Avoid breathing vapor. Ventilate area. Remove with inert absorbent and nonsparking tools.

Waste disposal methods: Dispose in accordance with local, state, and federal regulations.

#### Section VIII. Special Precaution Information

Respiratory protection: Ventilation—keep exposure below TLV and insure good ventilation.

Protective gloves: Required for repeated contact.

Eye protection: To protect against splash.

Other protective equipment: Use air supplied breathing equipment in confined areas.

#### Section IX. Special Precautions

Precautions to be taken in storing and handling: Do not store above 120 degrees. Store large quantities in areas approved for NFPA exempt liquids.

Other precautions: Do not take internally. Containers should be grounded when pouring.

### III. LEGAL BACKGROUND

#### A. THEORIES OF RECOVERY

#### § 9 In general

Where the plaintiff's exposure to a toxic substance or hazardous chemical occurs at a construction worksite, counsel's immediate concern should be to obtain workers' compensation benefits for the injured worker.<sup>29</sup> Once compensation has been settled, counsel for the worker must give consideration to the

<sup>29</sup>For workers' compensation cases where benefits were awarded workers who suffered pulmonary injuries from the inhalation of toxic fumes at a worksite, see *Hemphill v Industrial Com. of Arizona* (1962) 91 Ariz 322, 372 P2d 327 (worker developed chronic bronchitis and other conditions as result of inhaling fumes from chemical spray); *Lumbermen's v Lynch* (Ga App 1940) 11 SE2d 699 (acute bronchial inflammation of lungs caused by inhal-

third-party liability aspects of the claim.<sup>30</sup> Within the context of the model trial case, a number of possible defendants and several possible theories present themselves. Generally, such a case presents the possibility of negligence claims against the owner of the premises and the general contractor, site manager, or supervising architect.<sup>31</sup> It also suggests the possibility of a product liability claim against the manufacturer and seller of the product containing the toxic substance or hazardous chemical.<sup>32</sup> These matters are treated in this subdivision of the article, along with the subject of the statute of limitations.<sup>33</sup> The liability of one subcontractor for an injury to an employee of another subcontractor, which does not involve the application of special rules of law within the context of the model trial case, is treated generally in the sections on jury instructions.<sup>34</sup>

#### Cases

Worker who allegedly developed cancer as result of exposure to 222 products in workplace could not recover on negligence, products liability, and other tort claims against 55 manufacturers, where complaint and discovery responses established that he was unable to identify which defendant or product caused or contributed to his injury. *Bockrath v. Al-*

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ing chlorine gas fumes while welding in underground tank); *Armour & Co. v Industrial Com.* (1937) 367 Ill 471, 11 NE2d 949 (engineer for meat packer overcome by exposure to fumes from broken ammonia pipe in refrigeration plant); *Ramsey v Bendix Aviation Corp.* (1946) 314 Mich 169, 22 NW2d 259 (worker developed bronchiectasis from inhaling chromic acid fumes); *Davies v Onyx Oil & Resin Co.* (1943) 24 NJ Misc 119, 46 A2d 806 (grain terminal building engineer developed chronic emphysema, bronchitis, and asthma from exposure to grain dust from wheat, oats, rye, barley, corn, and other grains); *Bednarek v International Milling Co.* (1951) 279 App Div 698, 108 NYS2d 316 (worker developed chronic bronchitis and asthma from flour and feed dust in employment). See also *CF&I Engineers, Inc. v Industrial Com.* (1974, Colo App) 520 P2d 1048 (worker developed chronic hepatitis from exposure to fumes from chemical spray containing trichloroethylene while working in large cylindrical tank).

<sup>30</sup>See, for example, *Alexander Pool Co. v Pevey* (1963) 247 Miss 389, 152 So 2d 451 (judgment for plaintiff affirmed in action against pool company for negligent installation of a chlorinator that broke during operation exposing plaintiff to toxic chlorine gas fumes resulting in chronic bronchitis with pulmonary fibrosis and secondary pulmonary emphysema); *Sheets v Agro-West, Inc.* (1983, App) 104 Idaho 880, 664 P2d 787 (comparative negligence of worker injured from inhalation of toxic fumes at worksite in third-party action).

<sup>31</sup>See §§ 10–13.

<sup>32</sup>See § 14.

<sup>33</sup>See § 15.

<sup>34</sup>See §§ 103–106.

drich Chemical Co., Inc., 64 Cal. App. 4th 1, 74 Cal. Rptr. 2d 774 (2d Dist. 1998), reh'g denied, (June 15, 1998).

Employee, who alleged that she was fired for complaining to employer that she and co-workers were exposed to toxic chemical without adequate protection and ventilation, failed to state cause of action for wrongful discharge in violation of public policy; although OSHA expressly protects from termination employee who files complaint with OSHA, public policy expressed therein does not go so far as to protect employee who disrupts orderly management of employer's business by merely complaining within workplace. Occupational Safety and Health Act of 1970, § 11(c), 29 U.S.C.A. § 660(c). *McLaughlin v. Gastrointestinal Specialists, Inc.*, 696 A.2d 173 (Pa. Super. Ct. 1997).

## § 9.5 Theories of employer liability

◆ **Note** See also: Workers' Compensation: Employer's Intentional Misconduct, 48 Am. Jur. Proof of Facts 2d 1, and Intentional Infliction of Emotional Distress by Employer, 45 Am. Jur. Proof of Facts 2d 249

### Cases

Plaintiffs' claims against renovators, alleging that they were exposed to asbestos while working for defendants on renovation project and seeking to impose liability under RICO, are dismissed, where plaintiffs alleged that their pay was kept artificially low because they did not receive hazard pay they would have demanded had they known of presence of asbestos, because claim for hazard pay is claim for emotional distress which, as claim for injury to person, does not provide standing under RICO. *Fried v SunGard Recovery Servs.* (1995, ED Pa) 900 F Supp 758, RICO Bus Disp Guide (CCH) ¶ 8941, 26 ELR 20500.

Personal-injury action by asbestos-removal worker against project manager and air-sampling professional for project was not barred by collateral estoppel based on earlier workers' compensation proceeding against employer in which arbitrator ruled that worker had failed to prove that his injuries were proximately caused by exposure to solvent fumes, where arbitrator's decision was appealed to circuit court and appeal was then dismissed pursuant to settlement between parties which did not address issue of causation, and thus there was no final judgment on merits. *Arnett v Environmental Science & Eng'g* (1995, 3d Dist) 275 Ill App 3d 938, 212 Ill Dec 467, 657 NE2d 668, mod, on reh (Nov 22, 1995).

Workers at airplane-manufacturing plant stated supportable claim for employer's intentional infliction of emotional distress, where employer required employees to perform work with chemical that employer knew would cause illness in employees, as other employees who had worked with chemical in experimental trials shortly before had suffered illness, and employer removed medical warnings from chemical containers and harassed employees seeking medical treatment for injuries resulting from their exposure to chemical. *Birklid v Boeing Co.* (1995) 127 Wash 2d 853, 904 P2d 278, 11 BNA IER Cas 97, remanded without op (CA9 Wash) 73 F3d 368.

**§ 10 Liability of owner**

Generally, the employer of an independent contractor is not liable for the negligent acts of the contractor. This general rule is so riddled with exceptions, however, that it has been said that the rule itself is now little more than a preamble to a catalog of its exceptions.<sup>35</sup> One exception to the general rule of nonliability is recognized when the employer retains an independent contractor to perform work which is inherently or intrinsically dangerous.<sup>36</sup> This liability is based on the theory that a person who engages a contractor to do work of an inherently dangerous character remains subject to an absolute, non-delegable duty to see that it is performed with a degree of care that is appropriate to the circumstances.<sup>37</sup> In other words, the employer of an independent contractor has a duty to see that all reasonable precautions are taken during the contract's performance, so that third persons may be effectively protected against injury.<sup>38</sup> What is inherently dangerous work is generally a question of fact for the jury.<sup>39</sup>

In some cases the liability is premised on a related but slightly different basis. Thus, one who employs an independent contractor to do work which the employer should recognize is likely to create during its progress a peculiar risk of harm to others unless special precautions are taken, is subject to liability for physical harm caused by the failure of the contractor to exercise reasonable care to take such precautions, even though the employer had provided for such precautions in the contract or otherwise.<sup>40</sup> For liability to attach under this doctrine, the employer must only recognize that the work being performed by the independent contractor necessarily involves peculiar risks of harm unless special precautions are taken;

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<sup>35</sup>Van Arsdale v Hollinger (1968) 68 Cal 2d 245, 252, 66 Cal Rptr 20, 437 P2d 508.

<sup>36</sup>Am. Jur. 2d, Independent Contractors § 41.

<sup>37</sup>See Restatement (Second) of Torts § 427 (1965).

<sup>38</sup>See the cases collected in Liability of employer with regard to inherently dangerous work for injuries to employees of independent contractor, 34 A.L.R. 4th 914.

<sup>39</sup>Donovan v General Motors (1985, CA8 Mo) 762 F2d 701; Warren v McLouth Steel Corp. (1981) 111 Mich App 496, 314 NW2d 666.

<sup>40</sup>See Van Arsdale v Hollinger (1968) 68 Cal 2d 245, 66 Cal Rptr 20, 437 P2d 508; Woolen v Aerojet General Corp. (1962) 57 Cal 2d 407, 20 Cal Rptr 12, 369 P2d 708.

Restatement (Second) of Torts § 416 (1965).

additional proof that the employer knew or should have known that the independent contractor had not taken or planned to take such precautions is not required.<sup>41</sup>

There is a conflict of authority as to whether the doctrine imposing liability upon the employer of a contractor for negligence in the performance of inherently dangerous work, or work which involves a peculiar risk of injury in the absence of special precautions, extends to employees of the contractor to permit recovery by them from the employer for injuries sustained in the course of such work. Many cases have denied employer liability for an injury to the employee of a contractor,<sup>42</sup> with some courts distinguishing between “third persons” and employees of contractors,<sup>43</sup> and other courts holding that the employee of a contractor employed to perform inherently dangerous work assumes the risk of such employment.<sup>44</sup> Many other courts permit the employee’s recovery, however, particularly where the injury occurs in the course of construction work.<sup>45</sup>

This liability may not be entirely vicarious. It has been held that the liability attaches when the employer knows or should know that the contemplated project involves inherently dangerous work, or that it involves a peculiar risk of injury unless special precautions are taken, and neither the independent contractor nor the employer have exercised reasonable care to see that the requisite precautions were taken.<sup>46</sup> Nor is the liability total vis-a-vis the injured worker. In some states, the employer may offset against his or her liability to the plaintiff the value of workers’ compensation benefits paid or payable to

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<sup>41</sup>McDonald v Oakland (1967, 1st Dist) 255 Cal App 2d 816, 63 Cal Rptr 593.

<sup>42</sup>See cases collected in Liability of employer with regard to inherently dangerous work for injuries to employees of independent contractor, 34 A.L.R. 4th 914 §§ 5-7.

<sup>43</sup>See, for example, Morris v Soldotna (1976, Alaska) 553 P2d 474.

<sup>44</sup>See, for example, St. Julian v Owens-Illinois, Inc. (1978) 59 Ohio Misc 66, 11 Ohio Ops 3d 59, 394 NE2d 359.

<sup>45</sup>See cases collected in Liability of employer with regard to inherently dangerous work for injuries to employees of independent contractor, 34 A.L.R. 4th 914 §§ 3, 4[a].

<sup>46</sup>McDonald v Oakland (1967, 1st Dist) 255 Cal App 2d 816, 63 Cal Rptr 593.

the plaintiff by the negligent contractor (or its insurer) as the plaintiff's employer.<sup>47</sup>

### Cases

In action against smelter owner for injuries sustained by employee of independent contractor performing repair work when hot gasses and mud containing sulfuric acid and arsenic flew out when section of top of settling chamber was removed, trial court erred in granting summary judgment for smelter owner since even if smelter owner had warned injured employee's supervisors of all potential hazards known to smelter owner in performing repair work, including those involved with settling chamber, its warnings may have been insufficient in that particular danger that harmed employee may have been one of which smelter owner did not know but should have known, and in that warning alone is not always sufficient, and since issues of fact existed as to whether smelter owner had breached its duty to employee by handing over unsafe work place. *Martinez v Asarco, Inc.* (1990, CA9 Ariz) 918 F2d 1467, 90 CDOS 8477 (applying Ariz law).

## § 11 Liability of general contractor

A general contractor in control of the structure or premises upon which the work is being done is liable to an employee of another contractor rightfully using any portion of the worksite for negligence in failing to keep it in a safe condition for such use. This liability arises from the duty imposed by the common law upon one in possession of premises toward invitees, a duty of which cannot be delegated to an agent or subcontractor.<sup>48</sup>

The duty owed by a general contractor to an employee of a subcontractor is to exercise ordinary care to keep the premises in reasonably safe condition, and it is not limited to conditions actually known to be dangerous but which might be found so

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<sup>47</sup>See *Witt v Jackson* (1961) 57 Cal 2d 57, 17 Cal Rptr 369, 366 P2d 641. See also *Rodgers v Workers' Comp. Appeals Bd.* (1984) 36 Cal 3d 330, 204 Cal Rptr 403, 682 P2d 1068 (comparative fault principles applied).

<sup>48</sup>See *Gonzales v Robert Hiller Constr. Co.* (1960, 2d Dist) 179 Cal App 2d 522, 3 Cal Rptr 832; *Souza v Pratico* (1966, 1st Dist) 245 Cal App 2d 651, 54 Cal Rptr 159; *Grant v Joseph J. Duffy Co.* (1974, 1st Dist) 20 Ill App 3d 669, 314 NE2d 478; *Tillile v Konkle* (1956) 383 Pa 420, 119 A2d 209; *Fenimore v Donald M. Drake Constr. Co.* (1976) 87 Wash 2d 85, 549 P2d 483. But see *Allison Steel Mfg. Co. v Superior Court of County of Pima* (1974) 22 Ariz App 76, 523 P2d 803 (liability of prime contractor at worksite limited to negligently supervised activities and failure to keep joint working spaces reasonably safe).

General contractor's liability for injuries to employees of other contractors on the project, 20 A.L.R. 2d 868 § 3.

by the exercise of reasonable care.<sup>49</sup> The general contractor's duty to provide a safe place to work includes the duty to warn employees of danger and to avoid exposing them to dangerous conditions.<sup>50</sup> However, the general contractor may not be liable for failing to warn of a condition at the worksite that was an open, apparent, and obvious danger inherent in the performance of the work.<sup>51</sup>

If the general contractor lets out part of the work, the contractor is under a legal obligation to conduct the work that has been retained safely for the benefit of the workers of any subcontractor. This same responsibility applies to the premises in general so far as they are under the general contractor's supervision. In the usual situation, even though all the work is committed to various subcontractors, the general contractor or its superintendent undertakes to correlate the various jobs, to see that each branch of the work is properly done, and to supervise the project as a whole. As the premises are to be cooperatively used by all the workmen employed, it is part of this general supervision to see that they are safe for that use.<sup>52</sup>

In an action between the general contractor as defendant and a plaintiff, who was an employee of a subcontractor, where the negligence of the subcontractor is the primary cause of the injury, recovery by the plaintiff must rest either on some evidence that the defendant so directed and controlled the subcontractor as to be liable as a principal or employer, or evidence that the defendant remained in such control of the premises in respect of the cause of the injury as to have been charged with the duty of inspection for the safety of the plaintiff as an invited person on the worksite.<sup>53</sup>

Where the plaintiff has been injured as a result of the method

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<sup>49</sup>Delgado v W. C. Garcia & Associates (1963, 1st Dist) 212 Cal App 2d 5, 27 Cal Rptr 613.

<sup>50</sup>Kuntz v Del E. Webb Constr. Co. (1961) 57 Cal 2d 100, 18 Cal Rptr 527, 368 P2d 127; Revels v Southern California Edison Co. (1952) 113 Cal App 2d 673, 248 P2d 986.

<sup>51</sup>Ferrante v Caye Constr. Co. (1963, 2d Dept) 19 App Div 2d 553, 241 NYS2d 28, affd Ferrante v Caye Constr. Co. (1964) 15 NY2d 584, 255 NYS2d 98, 203 NE2d 492.

<sup>52</sup>See Morgan v Stubblefield (1972) 6 Cal 3d 606, 100 Cal Rptr 1, 493 P2d 465; Katapodis v Koppers Co. (1985, CA7 Ind) 770 F2d 655 (applying Indiana law); Hooey v Airport Const. Co. (1930) 253 NY 486, 171 NE 752; Caspersen v La Sala Bros., Inc. (1930) 253 NY 491, 171 NE 754.

<sup>53</sup>General contractor's liability for injuries to employees of other contractors on the project, 20 A.L.R. 2d 868 § 3.

of operation, the particular negligence relied on is usually that of faulty superintendence. The negligence may lie (1) in the adoption of a dangerous plan of work,<sup>54</sup> (2) in the failure properly to supervise the order or coordination of the work,<sup>55</sup> or (3) in the negligent exercise of retained control.<sup>56</sup>

#### Cases

Duties owed by general contractor to subcontractor's employees were analogous to those owed by owner of premises to business invitees, and include duty to exercise ordinary care, duty to warn of unduly hazardous conditions that might affect welfare of subcontractor's employees, and duty to perform any duties undertaken by general contractor in non-negligent manner; summary judgment in favor of general contractor for burn injuries suffered by subcontractor hired to remove calcium chloride compound, that witness testified was hazardous chemical that could cause serious skin injuries, from tank was reversed, where general contractor advised subcontractor of problems associated with heat and humidity inside tank and provided water and Gatorade to subcontractor's employees, where general contractor did not maintain equipment on-site needed to extricate employee from tank who passed out from heat exhaustion, and where burns could have been prevented if employee's clothing had been removed and his skin washed with water. *Franklin v Osca, Inc.* (1992) 308 Ark 409, 825 SW2d 812.

"Ultrahazardous activities" conducted by an independent contractor are those that are so dangerous that even the exercise of reasonable care cannot eliminate the risk of serious harm; in such cases, the employer is strictly liable for any harm that proximately results. *Kinsey v. Spann*, 533 S.E.2d 487 (N.C. Ct. App. 2000); West's Key Number Digest, Master and Servant ¶319.

### § 12 Right to control work of independent contractor

If the employer has retained an element of control over the work, the employer should be responsible for the harmful consequences of its performance as a concomitant of the control retained.<sup>57</sup> A similar duty is imposed upon the independent

<sup>54</sup>See *Holdren v Morris* (1947) 190 Misc 673, 74 NYS2d 807.

<sup>55</sup>See *Thill v Modern Erecting Co.* (1965) 272 Minn 217, 136 NW2d 677; *Pelowski v L. R. Watkins Medical Co.* (1913) 120 Minn 118, 139 NW 618.

<sup>56</sup>See § 13.

<sup>57</sup>*Morris v Soldotna* (1976, Alaska) 553 P2d 474. See also *Litton v Travelers Ins. Co.* (1950, DC La) 88 F Supp 76 (judgment for plumber employed as steamfitter by general contractor for acute and chronic bronchitis suffered as a result of exposure to chlorine gas on the owner's premises which escaped from pipes under the owner's control—*res ipsa loquitur* applied against the owner).

contractor who lets out part of the work to subcontractors.<sup>58</sup> This is the rule of the *Restatement*, which provides: “One who entrusts work to an independent contractor, but who retains the control of any part of the work, is subject to liability for physical harm to others for whose safety the employer owes a duty to exercise reasonable care, which is caused by his failure to exercise his control with reasonable care.”<sup>59</sup>

It is not enough that the employer has merely a general right to order the work stopped, to inspect its progress, to make recommendations, to prescribe alternations and deviations, or even to even conduct safety meetings and prescribe safety requirements. There must be such a retention of the right of supervision that the contractor is not entirely free to do the work in any way deemed appropriate; and it is a question of fact for the jury to determine whether an employer of an independent contractor retains sufficient control so as to make the employer liable.<sup>60</sup>

### § 13 Statutory duties of owners and contractors

The principles underlying the liabilities of owners of premises under construction and independent contractors, such as general or prime contractors, site managers, and supervising architects, have been embodied in statutes in some states, the specific terms of which should be referred to in given cases.<sup>61</sup> For example, Alaska’s so-called “Safe Place to Work Act” provides that “(a) an employer shall (1) furnish employment which is reasonably safe; (2) furnish and use safety devices and safeguards; (3) adopt and use methods and processes reasonably adequate to render the employment or place of employment reasonably safe; and (4) do every other thing reasonably

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<sup>58</sup>See *Fluor Corp. v Sykes* (1966) 3 Ariz App 211, 413 P2d 270; *Summers v Crown Constr. Co.* (1972, CA4 W Va) 453 F2d 998.

<sup>59</sup>*Restatement (Second) of Torts* § 414 (1965).

<sup>60</sup>*Morris v Soldotna* (1976, Alaska) 553 P2d 474 (fact that owner and general contractor maintained supervisory agents at worksite not sufficient to make them liable for negligence of subcontractor where there was no evidence that they actively controlled any aspect of the subcontractor’s work).

<sup>61</sup>See, for example, *Morris v Soldotna* (1976, Alaska) 553 P2d 474 (“Safe Place to Work Act”); *Zucchelli v City Constr. Co.* (1958) 4 NY2d 52, 172 NYS2d 139, 149 NE2d 72 (statutory rule recognized).

necessary to protect the life, health, safety, and welfare of employees.”<sup>62</sup>

In addition to safe-place-to-work statutes, most states have administrative regulations that provide specific requirements for worker safety, particularly as it involves the inhalation of actual or potentially toxic gases, fumes, or particulate matter. To borrow another example from Alaska, that state’s general safety code provides that where any toxic materials are used or stored warning signs must be posted with a white background and red letters not less than three inches high.<sup>63</sup> Further, it requires that respirators or masks are to be furnished to employees who are exposed to hazardous dusts, gases, fumes or mists, or to atmosphere deficient in oxygen.<sup>64</sup> Finally, the Code provides that whenever workers are engaged in brush or spray coating operations in any confined space in which there is no natural ventilation, they shall be provided with forced ventilation or with adequate respiratory protective devices that will protect them.<sup>65</sup>

Whether these statutes and administrative orders create private rights of actions for their breaches depends upon the wording and interpretation of the regulations. However, even where such safety regulation may not provide the basis of a third-party suit by an injured worker, it may further define the common-law duty of the owner of the premises and of the general contractor which may then lead to an inference of negligence or a finding of negligence per se upon proof of a violation.<sup>66</sup>

#### Cases

Summary judgment was granted to United States and independent contractor engaged by US to maintain residences for naval personnel, in toxic-tort action arising from exposure of child to roofing sealant installed by contractor on foundation of residence. Plaintiffs claimed that child, while playing, got into puddle of sealant, and as result, was exposed to tri-ortho-cresyl phosphate (TOCP) that resulted in progressive neurological impairment. US delegated entire day-to-day maintenance operations to contractor and, under discretionary-function exemption to Federal Tort Claims Act, could not be held liable. Further, expert medical evi-

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<sup>62</sup>Alaska Stat § 18.60.075.

<sup>63</sup>Alaska Gen Safety Code § 300.20(4).

<sup>64</sup>Id., § 304-03(b).

<sup>65</sup>Id., § 324-05.

<sup>66</sup>*Morris v Soldotna* (1976, Alaska) 553 P2d 474. See also *Bachner v Rich* (1976, Alaska) 554 P2d 430 (statutory duty of supplier of scaffold at construction site).

dence introduced by plaintiffs failed to prove causal relationship between child's exposure and neurological impairment. Treating physician had no actual knowledge that roof coating contained TOCP; manufacturer of sealant had never used TOCP as ingredient; and contractor denied adding anything to coating. Second medical expert was research scientist who did not work on humans and merely opined that blood test on child, that had never been performed on humans, was consistent with degenerative neurological process such as that caused by exposure to TOCP. Third witness, chemist who claimed expertise in toxicology, but who was not physician, performed tests on shirt worn by child's mother for traces of TOCP, but results were inconclusive, and methodology used was not sufficiently reliable. Neurologist who worked in field of insecticides and pesticides theorized that child was asphyxiated by sealant. However, this was inconsistent with evidence that there was no sealant on child's face except for what child put on his face by touching it with his hands. Finally, neuropsychologist attempted to link exposure to sealant with Parkinsons'-like symptoms, but child suffered no such symptoms. *Goewey v United States* (1995, DC SC) 886 F Supp 1268.

#### § 14 Liability of paint manufacturer

The maker and supplier of products for sale in the marketplace containing toxic substances or hazardous chemicals owes a duty to those into whose hands the articles may come to convey a suitable notice of the danger so that the proper precautions may be taken to prevent wrongful use and a consequent injury.<sup>67</sup> If the product is hazardous, or if it may become hazardous when used in certain ways, there must be warnings of the dangers; and where warnings are given, they must be adequate to inform users of the hazard.<sup>68</sup> These duties not only extend to the immediate purchaser but to third persons who may be endangered by the product's use.<sup>69</sup> Generally, a breach of any of these duties by the manufacturer or

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<sup>67</sup>On the negligence liability of sellers of products containing hazardous chemicals or toxic substances, see generally Restatement (Second) of Torts §§ 388, 394 (1965).

Buser, Failure to Warn in Toxic-Tort Cases, 23 Trial 21 (Oct 1987).

<sup>68</sup>See *Pell v Victor J. Andrew High School* (1984, 1st Dist) 123 Ill App 3d 423, 78 Ill Dec 739, 462 NE2d 858, CCH Prod Liab Rep ¶ 10070, 50 ALR4th 1207; *Butler v PPG Industries, Inc.* (1985) 201 NJ Super 558, 493 A2d 619, CCH Prod Liab Rep ¶ 10575.

<sup>69</sup>See Restatement (Second) of Torts § 388, comment n (1965). See also *Jackson v Coast Paint & Lacquer Co.* (1974, CA9 Mont) 499 F2d 809 (applying Montana law—manufacturer's duty to warn extended to an employee of a company hired to coat the inside of railroad tank cars and was not discharged by warning to plaintiff's employer). But see *Prather v Upjohn Co.* (1986, CA11 Fla) 797 F2d 923, CCH Prod Liab Rep ¶ 11107 (manufacturer not liable to uninformed worker where adequate warning given to employer and product sold only to knowledgeable industrial users).

seller of a product containing a hazardous chemical or toxic substance would give rise to a cause of action for negligence.<sup>70</sup>

In most cases liability will be sought solely or alternatively under the Restatement rule of strict liability in tort for product liability, which has been adopted in most states. The Restatement provides that one who sells a product in a defective condition, unreasonably dangerous to the user or consumer, is subject to liability for physical harm and property damage caused to the ultimate consumer if (1) the seller is engaged in the business of selling such a product, and (2) the product is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.<sup>71</sup> The rule applies although the seller has exercised all possible care in the preparation and sale of the product and the user or consumer has not bought the product from or entered into a contractual relation with the seller.<sup>72</sup> Where the seller has reason to anticipate that danger may result from a particular use, the seller may be required to give adequate warning of the danger; a product sold without such warning is in a defective condition.<sup>73</sup> Where warning is given, however, the seller may reasonably assume that it will be read and heeded; a product

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<sup>70</sup>See, for example, *Shirley v Drackett Products Co.* (1970) 26 Mich App 644, 182 NW2d 726 (housewife developed acute bronchitis and bronchial asthma from inhaling toxic fumes of toilet bowl cleanser).

Generally, see the cases collected in *Liability of manufacturer or seller for injury caused by domestic or industrial soaps, detergents, cleansers, polishes, and the like*, 79 A.L.R. 2d 482 §§ 1–11; *Liability of manufacturer or seller for injury caused by paint, cement, lumber, building supplies, ladders, small tools, and like products*, 78 A.L.R. 2d 696 §§ 3–7, 15.

Pollan, "Theories of Liability" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 11.01–11.25 (Shephard's/McGraw Hill 1984).

<sup>71</sup>Restatement (Second) of Torts § 402A(1) (1965).

Liability of manufacturer or seller for injury caused by domestic or industrial soaps, detergents, cleansers, polishes, and the like, 79 A.L.R. 2d 482 § 2.5 (strict liability); Liability of manufacturer or seller for injury caused by paint, cement, lumber, building supplies, ladders, small tools, and like products, 78 A.L.R. 2d 696 § 10.5 (strict liability). See, generally, *Products liability: product as unreasonably dangerous or unsafe under doctrine of strict liability in tort*, 54 A.L.R. 3d 352.

<sup>72</sup>Restatement (Second) of Torts § 402A(2) (1965).

<sup>73</sup>Restatement (Second) of Torts § 402A, comment h (1965).

Failure to warn as basis of liability under doctrine of strict liability in tort, 53 A.L.R. 3d 239.

bearing such a warning, which is safe for use if it is followed, is not in defective condition nor is it unreasonably dangerous.<sup>74</sup>

#### Cases

Negligence and products liability action was properly dismissed as against suppliers of component chemicals incorporated into allegedly defective polyurethane foam insulation in plaintiffs' building where complaint did not allege that component chemicals were unreasonably dangerous at time they left hands of defendants, and allegations of defectiveness were directed exclusively to insulation itself; absent specific allegations either that components were defective or that manufacturers knew that their products would be combined to form dangerous or defective product, defectiveness of finished product cannot be imputed to manufacturers of components. *Gifaldi v Dumont Co.* (1991, 4th Dept) 172 AD2d 1025, 569 NYS2d 284.

### § 14.5 Warning Requirements; Learned Intermediary Defense

#### Cases

Pursuant to learned intermediary defense, manufacturer of toxic chemical processed at refinery discharged its duty to refinery workers to warn about hazards of its product by providing information to independent intermediary, the refinery's lessee and one of lessee's owners. *Curtis v. M&S Petroleum, Inc.*, 174 F.3d 661 (5th Cir. 1999); West's Key Number Digest, Products Liability ¶43.

Jury verdict was affirmed in negligence and strict-liability action brought by bricklayer foreman and members of his family against manufacturer of Sure Klean 600 hydrochloric-acid-based mortar cleaner. When bricklayer dropped drum of mortar cleaner onto pallet, bung closure popped out of drum and mortar cleaner splashed into his right eye. As result, bricklayer eventually lost sight in eye. Bricklayer claimed that defendants were liable for failure to warn of precautions to be taken in moving drum, in using NPT-threaded closure rather than buttress-threaded closure, and in packaging mortar cleaner in awkward (and thus dangerous) container. Trial court erred in submitting jury instructions regarding defendant's failure to warn under both negligence and strict-liability theories. With respect to failure-to-warn claims, any distinction between strict-liability and negligence principles is illusory; regardless of which theory is followed, plaintiff must prove that defendant knew or should have known of potential risks associated with use of its product, but failed to provide adequate directions or warnings to users. While issue should have been submitted under negligence theory only, error was harmless and did not justify reversal of verdict. Sufficient evidence existed to support submission of negligent failure-to-warn instruction to jury where bricklayer did not know how hand-tightened lid came off drum, although he had occasionally had problems with "cross-threading" closures when screwing them into containers. In addition, trial court did not err in refusing to give state-of-the-art instruc-

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<sup>74</sup>Restatement (Second) of Torts § 402A, comment j (1965).

tion on plaintiff's negligence claim. Under Iowa law, product's conformance to state-of-the-art is complete defense to strict-liability claim, but is not absolute defense to negligence claim. Thus, negligence defendant is not entitled to jury instruction based on state-of-the-art, notwithstanding that evidence of state-of-the-art may be admitted in negligence cases to rebut plaintiff's proof that defendant breached duty to exercise degree of care reasonable manufacturer would have used in light of generally recognized and prevailing scientific knowledge. Trial court did not err in refusing to submit instruction on doctrine of avoidable consequences, where bricklayer's failure to check bung closure and to wear goggles and protective gear occurred before, rather than after, his injury and thus before cleaner manufacturer committed any legal wrong against bricklayer. Jury verdicts finding no liability on part of manufacturers of drum and bung closure and allocating 100-percent fault to mortar cleaner manufacturer were not inconsistent where there was no evidence that drum or bung closure was defective in and of itself, and there was evidence that dangerous product was created when mortar cleaner manufacturer used drum and bung closure to contain 15 gallons of hydrochloric-acid-based mortar cleaner. *Olson v Prosoco, Inc.* (1994, Iowa) 522 NW2d 284.

In negligence, strict liability, and breach of warranty action brought by former school teacher who alleged injury as result of exposure to fumes and spray of polyurethane roofing materials being used to reroof junior high school at which she was employed, trial court erred in granting summary judgment in favor of defendant manufacturers of polyurethane foam and polyurethane coating based on learned intermediary defense. Both defendants asserted that they had no duty to warn roofing contractor or plaintiff about any possible hazards associated with their products because roofing contractor was experienced, knowledgeable applicator of these products and therefore chargeable with knowledge of properties of products. However, learned intermediary defense could not relieve manufacturers of their duty to warn unless their reliance on intermediary was reasonable, and it could not be determined from record whether it was reasonable for defendant manufacturers to conclude that contractor was knowledgeable about hazards because there was testimony that contractor had no knowledge of hazards associated with roofing materials involved and facts were in dispute as to whether either defendant sent contractor any information concerning chemical properties of products and hazards associated with them. *Swan v I.P., Inc.* (1993, Miss) 613 So 2d 846, CCH Prod Liab Rep ¶ 13451.

## § 15 Application of statute of limitations

In order to avoid possible running of the statute of limitations and resulting malpractice claims, counsel must at all times keep an eye on the statute of limitations,<sup>75</sup> even to the point of filing a lawsuit before it is fully ready to be litigated.

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<sup>75</sup>Solving Statutes of Limitation Problems, 4 Am. Jur. Trials 441.

Statute of limitations under Federal Tort Claims Act (28 USCA sec. 2401(b)), 29 A.L.R. Fed. 482.

This is especially true in third party liability cases where an industrial accident or workers' compensation claim may be pending, which may or may not toll the running of the statute of limitations on the third party case according to local law.<sup>76</sup> In case of any doubt counsel should file the action as soon as practicable. A lawsuit may be dismissed if investigation proves that it is unwarranted, but it may not be brought after the statute has run.

Generally, the period of time limited for the bringing of a tort action, which varies from state to state, begins to run from the date of the injury.<sup>77</sup> In the model trial case, the plaintiff was immediately overcome on exposure to the toxic fumes created by the spraying of the painting contractor's crew, thus starting the running of the applicable limitations period. In other toxic exposure cases, however, the injury may occur as the accumulated result of multiple exposures over a long period of time or because the illness or condition caused by the exposure has a long latency period.<sup>78</sup> In the latter situations the courts are not in agreement as to when the statute of limitations begins to run.<sup>79</sup> The older cases tended to hold that the statute of limitations begins to run on the date of the defendant's negligent act.<sup>80</sup> To mitigate the harshness of the application of this rule in many cases, other courts held that the statute began to run from the date of the plaintiff's "injury," which may occur after the date of the defendant's negligence; but that rule has also been variously interpreted to mean from the first indication of symptoms to the time when disability occurred.<sup>81</sup> Some courts now hold that the statute begins to run on the date of the plaintiff's exposure to the toxic substance or hazardous chemical or, alternatively, on the date of the termination of the plaintiff's employment in the toxic

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<sup>76</sup>Derivative causes of action; third party defendant actions, see Solving Statute of Limitations Problems, 4 Am. Jur. Trials 441 § 7.

Effect of injured employee's proceeding for workmen's compensation benefits on running of statute of limitations governing action for personal injury arising from same incident, 71 A.L.R. 3d 849.

<sup>77</sup>Am. Jur. 2d, Limitations of Actions § 135.

<sup>78</sup>Am. Jur. 2d, Limitations of Actions § 137.

<sup>79</sup>See cases collected in When statute of limitations begins to run as to cause of action for development of latent industrial or occupational disease, 1 A.L.R. 4th 117.

<sup>80</sup>1 A.L.R. 4th 117 § 3.

<sup>81</sup>1 A.L.R. 4th 117 § 4.5.

environment.<sup>82</sup> Many modern cases have borrowed the “delayed discovery rule” from medical malpractice cases,<sup>83</sup> holding that the limitations period runs from date of discovery of the injury, which may mean from the first diagnosis of the disease<sup>84</sup> or from the time both the injury and its causal relationship to the exposure are known.<sup>85</sup>

### Cases

Worker’s personal injury claim against manufacturer of toxic substances, seeking damages for respiratory problems he experienced as result of workplace exposure to the substances, accrued at time worker had made repeated visits to hospital and health center for treatment for his respiratory symptoms, filed workers’ compensation claim based on such symptoms and submitted injury investigation reports to his employer; such actions, together with worker’s statements to attending nurse and documentary evidence of his diagnoses, demonstrated that worker had discovered injury underlying his claim. *McKinney’s CPLR 214-c. Whitney v. Quaker Chemical Corp.*, 90 N.Y.2d 845, 660 N.Y.S.2d 862, 683 N.E.2d 768 (1997).

Accrual of personal injury claim under CPLR § 214 would be measured from date of injury (installation of allegedly toxic foam insulation in plaintiffs’ house), not date of last exposure (which included continuing exposure for one plaintiff who continued to reside in house), since, at date of injury, all elements of tort could be truthfully alleged and plaintiffs had colorable claim against defendants. *Snyder v Town Insulation, Inc.* (1993) 81 NY2d 429, 599 NYS2d 515, 615 NE2d 999.

In cases involving latent occupational diseases, discovery of the injury should not be equated with a plaintiff’s discovery of the precise name of the disease that is causing his symptoms or that the disease is permanent; the seriousness of a personal injury need not be fully apparent or even fully developed in order to commence the statute of limitations. *Childs v. Haussecker*, 974 S.W.2d 31 (Tex. 1998), reh’g of cause overruled, (Sept. 24, 1998).

## B. DAMAGES

### § 16 In general

Injuries suffered as a result of toxic exposure often cause chronic neurologic, cardiac, and pulmonary pathology that

<sup>82</sup>1 A.L.R. 4th 117 § 4.

<sup>83</sup>Am. Jur. 2d, Physicians, Surgeons, and Other Healers § 321.

Time of discovery as affecting running of statute of limitations in wrongful death action, 49 A.L.R. 4th 972.

<sup>84</sup>1 A.L.R. 4th 117 § 5.

<sup>85</sup>1 A.L.R. 4th 117 § 7.

sometimes results in the death of the victim.<sup>86</sup> As a result, claims for damages in toxic exposure cases frequently cross over from personal injury damages<sup>87</sup> to damages for wrongful death.<sup>88</sup> The following sections<sup>89</sup> briefly review items of damages that may be claimed in both cases.<sup>90</sup>

### § 17 Personal injury damages—Generally

◆ **Note** For a discussion of punitive damages recoveries from manufacturers, see *Punitive Damages in Products Liability Litigation*, 54 Am. Jur. Trials 443.

Personal injury damages in toxic exposure cases fall into two broad categories: (1) special damages for past and future medical expenses and loss of wages and (2) general damages for pain and suffering and its attributes and effects. The distinction between special and general damages is also made on the basis that all provable economic loss up to the time of trial constitutes the plaintiff's special damages and that future economic loss, along with damages for pain and suffering, constitutes general damages.

Aside from the damages for medical expenses and physical pain and suffering, counsel should not overlook the mental stress and anguish that frequently accompany physical injuries in toxic exposure cases, particularly where the client's illness or condition has been diagnosed as terminal.

General damages for pain and suffering and mental distress should be calculated on a per diem basis, particularly in a jurisdiction where counsel may be allowed to present per diem calculations to a jury at trial.<sup>91</sup> The physical pain and suffering should be measured from the onset of the symptoms; the claims for the mental anguish resulting from a terminal illness or

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<sup>86</sup>See, generally, Singer, *Proving Damages in Toxic Torts*, 21 Trial 59 (Nov 1985).

Excessiveness or adequacy of damages awarded for injuries to, or condition induced in, respiratory system, 15 A.L.R. 4th 519; Excessiveness or adequacy of damages awarded to injured person for injuries to organic systems and processes of body, 12 A.L.R. 3d 475.

<sup>87</sup>See §§ 17, 18.

<sup>88</sup>See §§ 19, 20.

<sup>89</sup>See §§ 17–22.

<sup>90</sup>Roeca, "Damages" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 17.01–17.19 (Shephard's/McGraw Hill 1984).

<sup>91</sup>Per diem or similar mathematical basis for fixing damages for pain and suffering, 3 A.L.R. 4th 940.

condition caused by the toxic exposure should be measured from the date of diagnosis to the date of death or remission; and the future mental damages should be measured from the date of remission for the life expectancy of the client.

The special damages recoverable by or on behalf of persons injured as a result of toxic exposure include (1) necessary and reasonable medical expenses, including actual past expenses for physician, hospital, nursing, and laboratory fees, and the cost of medicines and prosthetic devices;<sup>92</sup> (2) costs of medical expenses reasonably expected to be incurred in the future;<sup>93</sup> and (3) damages for the loss of past and future earnings,<sup>94</sup> including actual loss of wages or salary, loss of existing vocational skill,<sup>95</sup> loss of capacity to earn increased wages,<sup>96</sup> loss of profits or net income by person engaged in business,<sup>97</sup> and the cost of hiring a substitute or assistant.<sup>98</sup>

General damages, which are those damages usually awarded for the subjective factors of pain and suffering from physical injuries,<sup>99</sup> may also include pain and suffering reasonably likely to occur in the future;<sup>1</sup> “phantom pain” and other subjective

<sup>92</sup>Necessity and sufficiency, in personal injury or death action, of evidence as to reasonableness of amount charged or paid for accrued medical, nursing, or hospital expenses, 12 A.L.R. 3d 1347.

<sup>93</sup>Requisite proof to permit recovery for future medical expenses as item of damages in personal injury action, 69 A.L.R. 2d 1261.

<sup>94</sup>Forensic Economics—Losses in Case of Disability, 15 Am. Jur. Proof of Facts 2d 311.

Effect of anticipated inflation on damages for future losses—modern cases, 21 A.L.R. 4th 21.

<sup>95</sup>Sufficiency of evidence, in personal injury action, to prove impairment of earning capacity and to warrant instructions to jury thereon, 18 A.L.R. 3d 88.

<sup>96</sup>Am. Jur. 2d, Damages § 92.

<sup>97</sup>Profits of business as factor in determining loss of earnings or earning capacity in action for personal injury or death, 45 A.L.R. 3d 345.

<sup>98</sup>Cost of hiring substitute or assistant during incapacity of injured party as item of damages in action for personal injury, 37 A.L.R. 2d 364.

<sup>99</sup>Showing Pain and Suffering, 5 Am. Jur. Trials 921.

Pain and Suffering, 23 Am. Jur. Proof of Facts 2d 1.

Admissibility, in civil case, of expert evidence as to existence or nonexistence, or severity, of pain, 11 A.L.R. 3d 1249.

**[Section 17]**

<sup>1</sup>Sufficiency of evidence, in personal injury action, to prove future pain and suffering and to warrant instructions to jury thereon, 18 A.L.R. 3d 10.

pain not readily apparent to lay person;<sup>2</sup> mental anguish;<sup>3</sup> fright and shock;<sup>4</sup> anxiety, depression, and other mental suffering or illness;<sup>5</sup> physical injuries caused by mental anguish;<sup>6</sup> harm from loss of sleep;<sup>7</sup> sexual dysfunction;<sup>8</sup> and past and future impairment of the ability to enjoy life.<sup>9</sup> In some states the spouse of the toxic exposure victim may join in an action to recovery damages for loss of consortium.<sup>10</sup>

#### Cases

Once a toxic exposure plaintiff claiming emotional distress damages for a fear of cancer claim establishes that the defendant has acted with oppression, fraud, or malice, the plaintiff must still demonstrate that his or her fear of cancer is reasonable, genuine, and serious in order to recover damages. In determining what constitutes reasonable fear, it is not enough for a plaintiff to show simply an ingestion of a carcinogen or a significant increase in the risk of cancer. In addition, the plaintiff must show that his or her actual risk of cancer is significant before recovery will be allowed. Under this reasoning, a plaintiff's fear is not compensable when the risk of cancer is significantly increased, but remains a remote possibility. *Potter v Firestone Tire & Rubber Co.* (1993) 6 Cal 4th 965, 25 Cal Rptr 2d 550, 863 P2d 795, 93 CDOS 9695, 93 Daily Journal DAR 16566.

To obtain award of exemplary or punitive damages for wanton or reck-

<sup>2</sup>Phantom Pain, 9 Am. Jur. Proof of Facts 103.

<sup>3</sup>Mental anguish or suffering as element of damages in personal injury action, Am. Jur. 2d, Damages §§ 195–198.

<sup>4</sup>Mental or emotional disturbance or distress as basis of cause of action, Am. Jur. 2d, Fright, Shock, and Mental Disturbance §§ 1 et seq.

<sup>5</sup>Anxiety Neurosis Following Trauma, 30 Am. Jur. Proof of Facts 1; Depression Following Trauma, 29 Am. Jur. Proof of Facts 529; Phobic Neurosis (Phobic Reaction) Following Trauma, 29 Am. Jur. Proof of Facts 571.

Future disease or condition, or anxiety relating thereto, as element of recovery, 50 A.L.R. 4th 13.

<sup>6</sup>Recovery for mental or emotional disturbance causing bodily injury or illness, Am. Jur. 2d, Fright, Shock, and Mental Disturbance §§ 13–24.

<sup>7</sup>Loss of Sleep as Element of Damages, 28 Am. Jur. Proof of Facts 1.

<sup>8</sup>Excessiveness or adequacy of damages awarded for injuries to, or conditions induced in, sexual organs and processes, 13 A.L.R. 4th 183.

<sup>9</sup>Recovery of Damages for Loss of Enjoyment of Life, 24 Am. Jur. Proof of Facts 171; Anosmia (loss of sense of smell), 27 Am. Jur. Proof of Facts 361.

Loss of enjoyment of life as a distinct element or factor in awarding damages for bodily injury, 34 A.L.R. 4th 293.

<sup>10</sup>Wife's Damages for Loss of Consortium, 30 Am. Jur. Proof of Facts 73; Loss of Consortium in Parent-Child Relationship, 27 Am. Jur. Proof of Facts 393.

Husband's damages for loss of consortium, Am. Jur. 2d, Husband and Wife § 455.

less disregard for public safety in handling of hazardous or toxic substances, plaintiff must prove that defendant's conduct was wanton or reckless, show that danger created by wanton or reckless conduct threatened or endangered public safety, prove that wanton or reckless conduct occurred in storage, handling, or transportation of hazardous or toxic substances, and prove that injury was caused by wanton or reckless conduct consisting of all of foregoing elements. LSA-C.C. art. 2315.3 (Repealed). *Rivera v. United Gas Pipeline Co.*, 697 So. 2d 327 (La. Ct. App. 5th Cir. 1997).

In personal injury action in which employee alleged he was injured when exposed to chemicals while cleaning reservoir storage tank at chemical plant, trial court did not abuse its discretion in award of \$218,012 for future medical expenses, where testimony of physician clearly established that employee would need ongoing monthly, or sometimes weekly, psychotherapy, continuous anti anxiety medication, and continual monitoring of his prescription drug intake, and where economist calculated monthly cost of psychotherapy sessions (\$1,200 per year), monthly cost of group therapy sessions (\$2,160 per year), and annual medication cost (\$1,460), and he calculated present value of these expenses over 42 years of life expectancy as \$218,012. *Sandbom v BASF Wyandotte, Corp.* (1996, La App 1st Cir) 674 So 2d 349.

Finding that oil company had been grossly negligent in allowing exposure of millwright who performed work at plant over 14-year period to be exposed to benzene, warranting award of punitive or exemplary damages in wrongful death action brought by family of millwright, was supported by evidence that destructive effects of benzene were known in the early 1900's, which satisfied objective prong of Moriel standard, and that company with knowledge of risk had failed to provide adequate monitoring, allowed them to wash their hands in benzene, and did not monitor contract workers for benzene exposure and prevented its industrial hygienists from doing so, which established company's subjective awareness of risk which was created. *Mobil Oil Corp. v Ellender* (1996, Tex App Beaumont) 934 SW2d 439.

## § 18 — Checklist

In a toxic exposure case where the client has survived the incident without incurring a terminal disease or condition, the following items of damages should be considered. If the client dies as a result of the effects of the toxic exposure following a prolonged illness, the damages listed should also be claimed in a legal action where a survival statute permits their recovery.<sup>11</sup>

### PERSONAL INJURIES DAMAGES CHECKLIST

- Doctor's bills
- Hospital bills
- Ambulance service

<sup>11</sup>Am. Jur. 2d, Abatement, Survival, and Revival §§ 66-68.

- Other medical expenses, for example, wheelchair, nursing home
- Lost wages
  - Days lost at work
  - Wage per diem, per hour, etc.
- Future medical expenses
  - Estimated amount of future treatment
  - Adjust for medical care inflation
  - Adjust for present value
- Future lost wages
  - Life expectancy without illness or condition
  - Estimated work years lost
  - Adjust for inflation, pay raises
  - Adjust to present value
- Pain and suffering
  - Physical pain of illness or condition
  - Symptoms, for example, vomiting, nausea, weight loss
  - Pain of chemotherapy and side effects
  - Future pain (number of days left)
- Mental anguish
  - Date illness or condition diagnosed
  - Date illness or condition terminated (by death or remission)
  - Anxiety over treatment
  - Anxiety over personal situation
  - Anxiety over family situation
- Mental anguish where illness or condition terminal
  - Anxiety of learning of fatal disease
  - Anxiety over living with fatal disease
  - Anxiety over approaching death
  - Pain of approaching death
- Future mental damages, if illness or condition in remission
  - Increased risk of other illness or condition
  - Risk of recurrence
  - Anxiety over recurrence or other toxic exposures

### § 18.3 —Emotional distress

#### Cases

Because railroad employee exposed to asbestos could not recover under FELA for negligently inflicted emotional distress absent manifested

symptoms of any disease, he could not recover medical monitoring costs as element of emotional distress damages; employee sought to recover economic cost of extra medical check-ups that he expected to incur as result of his exposure to asbestos-laden insulation dust. Federal Employers' Liability Act, §§ 1 et seq., as amended, 45 U.S.C.A. §§ 51 et seq. *Metro-North Commuter R. Co. v. Buckley*, 117 S.Ct. 2113, 138 L.Ed.2d 560 (U.S. 1997).

In an action by residents living near a landfill against a tire company that disposed of toxic materials at the landfill, resulting in contamination of plaintiffs' water supply, plaintiffs were excepted from having to prove it was probable that cancer would develop in order to recover emotional distress damages, since defendant's conduct brought the case within the "oppression, fraud or malice" exception for recovery of fear of cancer damages. The trial court found officials at defendant's plant had increased knowledge as to the dangers involved in careless disposal of hazardous wastes, and had a specific, written policy for hazardous waste disposal. However, the officials largely ignored the policy. The court found especially reprehensible the fact that defendant, through its plant production manager, discouraged compliance with its internal policies and state law solely for the sake of reducing corporate costs. Under these circumstances, there were sufficient facts supporting the trial court's conclusion that such conduct displayed a conscious disregard of the rights and safety of others. However, an award of fear of cancer damages was still dependent on whether plaintiffs' fears were reasonable with reference to the actual likelihood of cancer due to the toxic exposure. *Potter v Firestone Tire & Rubber Co.* (1993) 6 Cal 4th 965, 25 Cal Rptr 2d 550, 863 P2d 795, 93 CDOS 9695, 93 Daily Journal DAR 16566.

## § 18.5 —Medical monitoring

### Cases

Toxic exposure plaintiffs may recover damages for medical monitoring only if the evidence establishes the necessity, as a direct consequence of the exposure in issue, for specific monitoring beyond that which an individual should pursue as a matter of general good sense and foresight. Thus, there can be no recovery for preventive medical care and checkups to which members of the public at large should prudently submit. Medical monitoring costs are not speculative, since they are based upon the specific dollar costs of reasonable and necessary periodic examinations. *Potter v Firestone Tire & Rubber Co.* (1993) 6 Cal 4th 965, 25 Cal Rptr 2d 550, 863 P2d 795, 93 CDOS 9695, 93 Daily Journal DAR 16566.

A medical monitoring claim is not equivalent to a claim for the increased risk of future harm, such as the development of disease. An increased risk claim seeks present compensation for a future injury to the plaintiff's general wellbeing, even though there is no evidence of present harm. By contrast, medical monitoring damages reimburse the specific cost of periodic medical testing which is proved by a reasonable medical certainty to be necessary. Medical monitoring damages compensate the plaintiff for the reasonable certainty that he will be required to pay for prospective testing and evaluation, and as such constitute "actual loss," an essential element of a cause of action in tort. *Miranda v Shell Oil Co.* (1993) 17 Cal App 4th 1651.

In toxic tort action against pesticide manufacturers by plaintiffs who allegedly drank pesticide-contaminated water, medical monitoring costs, i.e., cost of future periodic medical examinations and related care, intended to facilitate early diagnosis and treatment of disease or illness caused by plaintiffs' exposure to toxic substance, was recoverable item of damages, even though plaintiffs had no current physical injury. However, toxic-tort plaintiff who seeks money damages for future medical surveillance is required to establish that need for monitoring is reasonable certain consequence of exposure. At least five factors appear to bear on this issue: (1) significance and extent of plaintiff's exposure to chemicals; (2) relative toxicity of chemicals; (3) Seriousness of diseases for which plaintiff is at increased risk; (4) relative increase in plaintiff's chance of developing disease as result of exposure; and (5) clinical value of early detection and diagnosis. *Miranda v Shell Oil Co.* (1993, 5th Dist) 12 Cal App 4th 28, 15 Cal Rptr 2d 569, 93 CDOS 106, 93 Daily Journal DAR 197, 23 ELR 20779, review gr (Cal) 17 Cal Rptr 2d 608, 847 P2d 574, 93 CDOS 1971, 93 Daily Journal DAR 3532 and reprinted for tracking pending review (5th Dist) 17 Cal App 4th 1651, review dismd, cause remanded, ordered published, in part (Cal) 93 CDOS 9747, 93 Daily Journal DAR 16615.

Firefighters exposed to asbestos at training facility were not entitled to award for medical monitoring during latency period of asbestos-related diseases, although firefighters' expert recommended regular chest x-rays and pulmonary studies, as he also testified that increase in risk of asbestos-related disease would be slight, and medical monitoring damages required significantly increased risk. *Lilley v. Board of Sup'rs of Louisiana State University*, 735 So. 2d 696 (La. Ct. App. 3d Cir. 1999), writ denied, 99 1162 La. 6/4/99, 1999 WL 408443 (La. 1999); West's Key Number Digest, Damages ¶191.

To prevail on common-law claim for medical monitoring, plaintiff must prove: (1) exposure greater than normal background levels, (2) to proven hazardous substance, (3) caused by defendant's negligence, (4) as proximate result of exposure, plaintiff has significantly increased risk of contracting serious latent disease, (5) monitoring procedure exists that makes early detection of disease possible, (6) prescribed monitoring regime is different from that normally recommended in absence of exposure, and (7) prescribed monitoring regime is reasonably necessary according to contemporary scientific principles. *Redland Soccer Club, Inc. v. Department of the Army and Dept. of Defense of the U.S.*, 696 A.2d 137 (Pa. 1997).

In order to sustain a claim for medical monitoring expenses, the plaintiff must prove that: (1) he or she has been significantly exposed; (2) to a proven hazardous substance; (3) through the tortious conduct of the defendant; (4) as a proximate result of the exposure, plaintiff has suffered an increased risk of contracting a serious latent disease relative to the general population; (5) the increased risk of disease makes it reasonably necessary for the plaintiff to undergo periodic diagnostic medical examinations different from what would be prescribed in the absence of the exposure; and (6) monitoring procedures exist that make the early detection of a disease possible. *Bower v. Westinghouse Elec. Corp.*, 206 W. Va. 133, 522 S.E.2d 424 (1999); West's Key Number Digest, Damages ¶43.

**§ 19 Wrongful death damages—Generally**

All states today provide a statutory basis for recovering damages for the wrongful death of a tort victim in an action brought by the decedent's surviving heirs or the personal representative of the decedent's estate.<sup>12</sup> Funeral expenses are usually allowed,<sup>13</sup> but general damages are frequently limited to the economic loss suffered as a result of the death<sup>14</sup> and the pecuniary value of the decedent's care, comfort and society,<sup>15</sup> including the loss of household services from a deceased spouse<sup>16</sup> and the parents' loss of a minor's services.<sup>17</sup> Loss of a prospective inheritance as result of death of injured person also may be recovered in some jurisdictions.<sup>18</sup> Some states also permit the survivors to recover general damages for the grief and anguish suffered as a result of the loss of the decedent.<sup>19</sup> Survival statutes exist in most states that permit the decedent's survivors or estate to recover special damages, which are generally limited to those incurred between the time of the exposure or when symptoms first developed and the date of the decedent's death.<sup>20</sup> Survival statutes may also permit the recovery of punitive damages on behalf of the decedent's es-

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<sup>12</sup>See, generally, Am. Jur. 2d, Death §§ 2–188.

<sup>13</sup>Am. Jur. 2d, Death § 129.

Common-law recovery of funeral expenses from tortfeasor by husband, wife, or other relative of deceased, 3 A.L.R. 2d 932.

<sup>14</sup>Forensic Economics—Death of Person in Labor Force, 13 Am. Jur. Proof of Facts 2d 45.

<sup>15</sup>Predicting Personal Injury Verdicts and Damages, 6 Am. Jur. Trials 963 §§ 75–77.

Recovery, in death action, for loss of society and companionship, Am. Jur. 2d, Death § 135.

<sup>16</sup>Damages for Loss of Housewife's Services, 13 Am. Jur. Proof of Facts 193; Forensic Economics—Death of Person Not in Labor Force, 14 Am. Jur. Proof of Facts 2d 311.

Admissibility and sufficiency of proof of value of housewife's services, in wrongful death action, 77 A.L.R. 3d 1175.

<sup>17</sup>Damages for Wrongful Death of, or Injury to, Child, 20 Am. Jur. Trials 513.

<sup>18</sup>Wrongful Death Damages—Loss of Prospective Inheritance, 24 Am. Jur. Proof of Facts 2d 211.

<sup>19</sup>Am. Jur. 2d, Death § 126.

<sup>20</sup>Am. Jur. 2d, Abatement, Survival, and Revival §§ 66–68.

tate,<sup>21</sup> which are generally not recoverable in a wrongful death action.<sup>22</sup>

## § 20 — Checklist

Where death has resulted from a toxic exposure, counsel should consider the following damages in a direct or third-party action on behalf of the decedent's estate or surviving heirs.

### WRONGFUL DEATH DAMAGES CHECKLIST

- Loss of Support
  - Average life expectancy
  - Years of work remaining
  - Estimated yearly earnings
  - Adjusted for raises, inflation
  - Reduce to present value
- Loss of Services
  - Work done around the house
  - Average hours of work
  - Replacement value of work
    - Federal minimum wage
    - Actual replacement value
- Loss of Society
  - Care, comfort, consortium, etc.
- Loss of prospective inheritance
- Mental anguish, where recoverable
- Funeral expenses

## § 21 Client's diary

An effective means of documenting damages is to have the client, spouse, and close family friends detail the day to day struggle and problems of coping with toxic exposure by each keeping a diary. The diary should be a private record of the life of the family as it goes through the various stages of dealing with the serious disability or imminent death of a family member. The attorney should encourage the family to include

<sup>21</sup>Claim for punitive damages in tort action as surviving death of tortfeasor or person wronged, 30 A.L.R. 4th 707.

<sup>22</sup>Am. Jur. 2d, Death § 136.

their hopes and aspirations as well as to record their deepest feelings of grief and fear in the diary. The diary should try to create a positive picture of the family, one that shows strength as well as weakness.

Such diaries have many uses. One is to refresh the recollection of family members about feelings and events that have occurred in the past that may be difficult to remember. Before testifying at a deposition or at trial, the client or the family member should review the diary in order to be a more effective witness. Using a diary to refresh recollection before testifying may require its production for the inspection of the opposing side, however.<sup>23</sup> Where the family wishes to keep the diaries private, they should not be used to refresh memory before testifying.

## § 22 Damage experts

An economic expert should be consulted by counsel in a toxic exposure case where the event has caused a permanently disabling condition that destroys or substantially impairs the client's earning capacity and in death cases to calculate the pecuniary losses suffered by the survivors from the loss of the decedent.<sup>24</sup> In addition to assisting counsel to prepare and evaluate the case, such an expert can be used advantageously at the time of trial. Without an economic expert on damages, counsel's statements to the jury during summation regarding damages are the arguments of counsel and may be disregarded by the jury as such. However, if the figures that counsel wishes to urge on the jury have been testified to by an expert in the form of an opinion, they are evidence in the case and entitled to much greater weight.

Counsel should also consider referring the client, and in some cases the client's family, to a psychologist for counseling. In addition to helping the client or the client's family cope with the severe stress serious injury and death creates for its victims and their survivors, a psychological expert can also bolster the mental distress element of the damages portion of the case by providing evidence in the form of an expert opinion on many of

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<sup>23</sup>Fed R Evid, Rule 612.

<sup>24</sup>Forensic Economics: General Overview; Death of Person in Labor Force, 13 Am. Jur. Proof of Facts 2d 45; Death of Person Not in Labor Force, 14 Am. Jur. Proof of Facts 2d 311; Losses in Cases of Disability, 15 Am. Jur. Proof of Facts 2d 311; Period of Economic Loss in Death and Personal Injury Cases, 38 Am. Jur. Proof of Facts 2d 195.

the subjective and emotional aspects of the client's damages. In the case of a client who survives the exposure but has experienced severe mental and emotional distress, the fees charged by a psychologist or counselor may be recoverable as items of the special damages.

#### IV. CASE INTAKE

##### § 23 In general

Processing the toxic exposure-construction accident case is relatively simple where the client originally presents himself or herself shortly after the exposure for the prosecution of a workers' compensation claim. In that situation the compensation proceeding and the third-party liability case generally proceed along parallel tracks, with the former matter usually resolved well in advance of the latter. The other typical situation is where the client has been referred to counsel from another attorney who represented the client in a workers' compensation proceeding. In this situation processing the case is similar to undertaking any other type of civil litigation,<sup>25</sup> except that counsel may rely on the compensation attorney's being able to supply a variety of investigative and medical materials that ordinarily are not available to counsel in the usual civil case at the time of case intake.<sup>26</sup>

##### Cases

Class was certified under FR Civ P 23(b)(2) consisting of all retired and former employees at industrial plant whose job duties exposed them to orthotoluidine and aniline supplied by defendants. Plaintiffs alleged negligence and strict liability based on failure of defendants to provide adequate warning of health hazards of these products. Plaintiffs introduced evidence of National Institute for Occupational Health study that found that workers at industrial plant had excess risk of developing bladder cancer ranging from 3.6 to 27.2 times normal risk. Plaintiffs sought injunctive relief in form of court-administered fund paid for by defendants that would cover reasonably anticipated costs of medical monitoring program for bladder cancer for lifetime of class members. *Gibbs v E.I. DuPont De Nemours & Co.* (1995, WD NY) 876 F Supp 475, 25 ELR 20926.

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<sup>25</sup>Processing the Case, 1 Am. Jur. Trials 189.

<sup>26</sup>See §§ 6–8, 35.

**§ 24 Initial client interview**

The initial client interview is important for a number of reasons.<sup>27</sup> First, the initial interview provides the attorney with an opportunity to establish the close rapport that is vital in all dealings with the client, and it is essential to establish that rapport early in the litigation. When an atmosphere of mutual trust and confidence has been created at the beginning of the attorney-client relationship, a client is easier to deal with during settlement negotiations later in the case.

An attorney interviewing a person who has been exposed to hazardous substances must be prepared to deal with a wide range of legal and personal problems. For example, a person who has contracted a fatal disease through such exposure has many other thoughts, such as the management of property left behind, the care for surviving children, and the settlement of outstanding debts. The attorney should recognize their existence and should appear interested and helpful with these problems.<sup>28</sup> Such an approach not only helps ease the client's burden, it helps give the impression that the attorney is interested in the client and not just the money the client's case can generate.

Although it is important to let the client tell the story in the client's own words, it is also important to let the client know that counsel is listening. Counsel should listen attentively to the client's story and ask occasional questions. Questions about various incidents can be interposed without breaking the flow of the narrative, which gives the client the impression that the attorney is not only listening but thinking as well.

The initial interview is also an opportunity for the attorney to judge the feelings and expectations of the client. Many clients who have been exposed to hazardous chemicals and toxic substances and incurred serious injury are understandably angry. How the client feels about the defendant will play an important role in how the case proceeds. If the client has excessive bitterness which is carried into the litigation or if he or she nurtures unrealistic expectations about the possibility of success, counsel faces a difficult task in proceeding with the action. The initial interview is a good place to begin conditioning the client to the rigors and realities of the case.

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<sup>27</sup>Interviewing the Client, 1 Am. Jur. Trials 1.

<sup>28</sup>If the client's estate problems are beyond the expertise of the lawyer, counsel should consider referring the client to someone who has the necessary experience or associating co-counsel to handle such matters as estate planning.

**§ 25 —Client preparation for interview**

The primary purpose of the initial client interview is to discover the facts surrounding the case and to determine the extent of the client's injuries.<sup>29</sup> It is very helpful for the client to be prepared for the meeting. Particularly in a case such as that of the model trial situation, where counsel will know in advance the factual situation that has led to litigation, and whenever possible, the client should be asked to review the case and reflect on what he or she knows prior to appearing at counsel's office for the interview. This is true, for example, regarding dates and the names of witnesses. A prepared client will be able to relate to the attorney more of the crucial facts during the initial interview, and this will save investigating time and prevent duplication of effort.

The initial interview in a toxic exposure case should explore all of the client's prior as well as present health problems in order to ensure that the client may be appropriately compensated for all harm suffered. While the client may be relying on a specific exposure at a particular location in claiming injury, the entire history of exposure should be traced, including exposure to hazardous substances at other sites.<sup>30</sup> Where the client has been exposed to a substance that may be carcinogenic, the client's prior exposure to other carcinogens is an important subject of inquiry in order to evaluate the claim. If a client has had considerable unrelated prior exposure, the claim may not be worth pursuing.

If the client has been injured as a result of a toxic exposure at work, counsel should be aware of the third-party liability potential of the case. Generally, damages for tort may be recovered from general contractors and subcontractors at the worksite—other than the client's employer—on negligence claims, and from manufacturers of industrial substances on product liability claims.<sup>31</sup> Although the workers' compensation aspect of toxic exposure cases is beyond the scope of this article, counsel should generally note that while most states permit the filing of a workers' compensation claim and the pursuit of a third-party liability case concurrently, other states may force a plaintiff to elect either a workers compensation claim or a

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<sup>29</sup>Investigating the Civil Case; General Principles, 1 Am. Jur. Trials 357.

<sup>30</sup>Putzrath, Dinman & Campbell, "Occupational and Environmental Exposures" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 2.01–2.13 (Shephard's/McGraw Hill 1984).

<sup>31</sup>See §§ 11, 14.

third-party suit.<sup>32</sup> Some states also allow intentional torts to be prosecuted outside of the workers' compensation system.<sup>33</sup> The initial interview should help the attorney analyze these situations as well as the underlying compensation claim.

### § 26 Client Interview Checklist

A carefully drawn up client interview checklist should be available to counsel for use at the initial interview. The checklist should cover the areas that counsel wants information on when conducting the interview. The resulting information will, and should, play a vital role in counsel's determination whether or not to accept the lawsuit. Even if counsel decides to accept the case, if the information gathered indicates significant past exposures to toxic substances, significant family history of the condition the client suffers from, significant use of tobacco or other cancer-causing substances, the case is likely to be very difficult to handle, and the attorney should be aware of this in setting the fee<sup>34</sup> and estimating litigation expenses.<sup>35</sup>

- Name and address
- Social security number
- Telephone numbers at home and at work
- Date of birth
- Family members
- Family medical history
- Place of employment at time of exposure
- Length of time employed
- Duties at work
- Supervisors, fellow workmen, union stewards

#### *Facts of Exposure*

- Date or dates of exposure
- Times and places of exposure

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<sup>32</sup>Am. Jur. 2d, Workmen's Compensation § 77.

<sup>33</sup>Am. Jur. 2d, Workmen's Compensation § 57.

Intentional Infliction of Emotional Distress by Employer, 45 Am. Jur. Proof of Facts 2d 249.

<sup>34</sup>See § 29.

<sup>35</sup>See § 30.

- Circumstances of exposure
- Other exposures
- Witnesses
- How exposed
- Who exposed client
  - Duty of that individual
  - Actions of that individual
- General layout of the work site
- Precautions taken to insure worker's safety
  - By the client's employer
  - By other contractors
  - By those actually handling the chemicals
- Chemicals exposed to, if known
- Other dates chemicals were used
- Company who manufactured chemicals
- Other chemicals in work place
- Warning labels

#### *Injuries*

- What kind of illness or condition
- Type of symptoms
- Date of first symptoms
- Date of seeking medical treatment
- Date diagnosed
- Diagnosing doctor
- Prognosis
- Other Injuries (obtain details as to each)
- Name and address of all health care providers
- Dates of all medical treatment
- Dates and time lost from work
- If a construction worker or someone who works out of a hiring hall, the dates unavailable for work

#### *Past Exposures*

- Past employment
- Locations of all previous employers

- Exposure to chemicals
- Dates and places of exposure
- Circumstances of exposure
- Chemicals exposed to
- Symptoms of illness from each exposure
- Use of tobacco and frequency
- Exposure to pesticides and circumstances
- Complete medical history
- Dates and places of all medical treatment
- All diagnosed illnesses

### § 27 Options at conclusion of client interview

The attorney has three options at the end of the initial interview: (1) to accept the case, (2) to reject the case, or (3) to enter into a contract with the client to investigate the claim with an option to provide representation if it appears to have merit. Unless the initial interview indicates that the case should be rejected, the third option is the best to take to protect both the attorney's and the client's interests. Assuming that the case is not rejected, the attorney should obtain a signed authorization for the release of medical information and a signed written contract, either to represent the client or to investigate the claim, at the time of the initial interview.

### § 28 Setting the fee

Most persons who seek representation for having been injured by exposure to toxic chemicals will not have the resources to retain counsel at an hourly rate, and in that instance a contingent fee contract is necessary.<sup>36</sup> The contingent percentage of the contract should be based on the degree of difficulty of the case. In most instances, a toxic exposure case will justify the highest rate allowed by law since such litigation is expensive to pursue and quite risky. A client's toxic exposure may also result in a death case at some point in time, and many states require that counsel establish a reasonable fee for services on the case through the probate court. These courts often have the power to reset the contingent fee, and the attorney must be prepared to defend the fee at a later time.

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<sup>36</sup>Setting the Fee, 1 Am. Jur. Trials 93.

## § 29 Payment for litigation expenses

If a contract to investigate the claim before accepting it is entered into between the attorney and the client, the parties must decide how the expenses are to be paid. Whenever possible, the client should pay some or all of the initial investigation costs. If this type of arrangement is made, the attorney should attempt to keep the initial expenses to a minimum.

If the case is accepted for representation, the client and the attorney need to make some further arrangement regarding the payment of litigation expenses. Toxic exposure cases frequently require an expenditure of \$10,000 or more in costs. Assuming the client is unable to cover those expenses, and that the rules in the jurisdiction permit, an arrangement where the costs of the litigation are advanced by counsel to be repaid by the client out of the settlement or recovery is necessary. The contract should clearly specify whether the costs are to be reimbursed out of the gross recovery or from the client's share after counsel's contingent fee has been deducted. Explaining the agreement for expenses to the client early will save having to do it at the time of a recovery when the client's expectations have been firmly set.

## V. INVESTIGATING THE CASE

### A. MEDICAL ISSUES; CAUSATION

#### § 30 In general

The initial investigation should focus on whether or not the particular injury suffered by the client can be linked to a toxic exposure.<sup>37</sup> Exposure to hazardous chemicals and toxic substances can produce neurological, pulmonary, and other conditions whose symptoms do not appear immediately after the exposure and which are difficult to relate causally to a particular exposure at a particular time. Thus, while negligence in a specific case may appear relatively clear, the proximate cause issue may be very difficult. Thus, litigating the proximate cause

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<sup>37</sup>Determining the Medical and Emotional Bases for Damages, 23 Am. Jur. Trials 479.

Putzrath, Levine, Buncher & Nothstein, "The Diagnosis of Occupational or Environmental Illness and Injury" in G. Nothstein, ed., Toxic Torts: Litigation of Hazardous Substance Cases §§ 4.01-4.15 (Shephard's/McGraw Hill 1984).

issue in a toxic exposure case requires a thorough investigation of the client's medical condition.

#### Cases

Diagnosis of multiple chemical sensitivity (MCS) syndrome had not gained general acceptance in the relevant scientific community and, thus, physician's testimony in support of his diagnosis that employee who worked in building on which contractor performed roofing work had MCS syndrome was inadmissible in her action against roofing contractor alleging its work was negligently performed, causing dust, fumes and particles to filter into the building, rendering her ill. *Collins v. Welch*, 678 N.Y.S.2d 444 (Sup. Ct. 1998).

### § 31 Medical Investigation Checklist

One of the first steps required in the investigation of a toxic exposure case is to conduct a thorough research of the chemical or toxic substance that is involved.<sup>38</sup> The information obtained as a result of this investigation should be correlated with what counsel has learned from the client's interview.<sup>39</sup> For example, if the exposure is believed to have caused cancer in the client but the latency period of the cancer is abnormally long, that is, the delay in the appearance of symptoms following exposure is inconsistent with the type of cancer the client has developed, that fact should in most instances mitigate against taking the case.

Following is a checklist designed to assist counsel in checking the medical literature:<sup>40</sup>

- Has the chemical been linked to the client's condition?
- What type of exposure is necessary for the condition to develop?
- What is the general pathology of this type of condition?
- What is the latency period of the condition?
- How rare is this condition in the general population?
- What other causes have been linked to this condition?

### § 32 Medical and scientific research sources

Numerous sources exist to assist the attorney with the medical investigation. The primary source for this information is information published by the United States government. In addi-

<sup>38</sup>For sources of investigation, see §§ 109–113.

<sup>39</sup>See § 24.

<sup>40</sup>For references to medical texts and periodicals, see §§ 109–113.

tion to publishing a variety of standards, guidelines, and reference works,<sup>41</sup> many government agencies hold hearings on the licensing and use of hazardous chemicals. Some of the agencies include the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), and the Occupational Safety and Health Administration (OSHA).

Although the government's findings from its investigations of various chemicals are valuable, the footnotes of reports submitted by the investigating agencies often are even more valuable. In such footnotes counsel may find references to various studies done on the chemical. Usually the report will refer to studies supporting both sides of the issue and include criticism of a particular study's methodology or its conclusions, such as criticizing human exposure studies for lacking sufficient background data. Industry representatives and scientists often present studies and findings to these agencies, and a review of the report may allow the plaintiff's attorney to get some insights into defense tactics. Perhaps equally important, the government study is a good resource from which to identify and locate possible experts.

When available, transcripts of hearing testimony before federal agencies are also good sources for information and clarification. If the agency proposes to issue a rule, the public is given time to comment on the proposal. Both the proposed rule, which may differ from the rule that is eventually issued, and the public response are useful sources of information about a hazardous chemical or toxic substance.<sup>42</sup>

States also have agencies with responsibilities similar to their federal counterparts. Although in most respects the information is largely repetitive, state agencies may have some new perspectives on a hazardous chemical or toxic substance. Additionally, states may have more stringent guidelines, evincing a different community standard for the duty of care. The violation of a specific state safety regulation may also bring the case

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<sup>41</sup>See § 110.

<sup>42</sup>See, generally, Darrell, "Standards, Rules, and Regulations in Toxic Tort Litigation" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 8.01–8.10 (Shephard's/McGraw Hill 1984).

Federal Hazardous Substances Act: what constitutes "hazardous substance" under 15 USCA sec. 1261(f), and what acts involving hazardous substances are prohibited under 15 USCA sec. 1263, 29 A.L.R. Fed. 742.

into the realm of an intentional tort and away from the worker's compensation system.<sup>43</sup>

Other sources of information about hazardous chemicals are private watchdog organizations. Among the public interest groups that are useful are: The Trial Lawyers for Public Justice and the Association of Trial Lawyers of America.

Counsel should consult medical textbooks regarding the client's particular condition;<sup>44</sup> in many cases this search might be appropriate as the first step in the medical investigation. Some basic information can be found in standard medicolegal texts, but in addition counsel should consult one or more of the medical specialty treatises. For example, if a carcinoma has developed following exposure to a toxic substance, counsel should review oncology texts to determine if a causal relationship between the disease and the chemical has already been documented.

### § 33 Medical records

Obviously, the medical records of the client are vital to the initial investigation.<sup>45</sup> As soon as the client has signed an authorization for the release of medical information, copies of the records of all of the client's health care providers should be obtained and reviewed. The complete records should be scanned and highlighted for things like rapid weight loss or other signs of the pre-onset of the condition. The medical history and discharge summaries can present an ongoing picture of the progress of the disease. It is also essential to check the records for the entire medical history of the client. The records should also be scanned for entries indicating similar symptoms that might represent a continuing problem or a preexisting condition.

### § 34 Workers' compensation claim

If the client was exposed to a hazardous chemical or toxic substance in the workplace, there will normally be an underlying workers' compensation claim pending. In fact, the client's first approach to counsel may have been for representation in the industrial accident proceedings. Where a client is pursuing a workers' compensation case as well as a third-party liability claim, much of the medical information and much of the

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<sup>43</sup>Am. Jur. 2d, Workmen's Compensation § 57.

<sup>44</sup>See § 109.

<sup>45</sup>Discovery and Evaluation of Medical Records, 15 Am. Jur. Trials 373.

investigative material needed by counsel initially may be available from the employer's insurer.<sup>46</sup> The insurer's cooperation is generally assured, particularly in those states where the insurer is entitled to recoup compensation benefits paid to an injured worker from a negligent third-party defendant.<sup>47</sup>

### § 35 Medical Report

Where there has been a claim for workers' compensation, counsel who handled or is handling that claim will have had plaintiff evaluated medically by a medical examiner appointed to examine plaintiff in the workers' compensation proceeding. Compensation counsel should be asked to provide present counsel with a copy of the written medical report of the medical examiner. The findings and conclusions of such expert concerning the causal relationship between the client's medical condition and the latter's exposure to the toxic fumes can play a significant role in the preparation of the proof necessary to win the case.

#### MEDICAL REPORT

##### HISTORY

*[Plaintiff]* is a 55-year-old white male carpenter who was well and in good health working at *[construction site]* when on *[date of accident]* painters began painting the area in which he was working, approximately 50 feet underground. He was exposed to and overcome by lacquer fumes. He had previously been in good health and had essentially no pulmonary disease. He was once told of asthma as a child and had an episode of bronchitis and pneumonia many years ago, but specifically, and in contrast to that recorded in the Industrial Commission chart, he has had no history of emphysema or other similar problems. He immediately went to *[family physician]*, his usual doctor who noticed chest tightness, wheezing, and toxic effects of the paint lacquer containing methylene chloride, methyl isobutyl ketone, and methyl ethyl ketone. He then was referred to *[pulmonary specialist]*, who noted that definite bronchitis secondary to this irritation was present. He took a variety of drugs including prednisone and bronchodilators for a period of time and now is taking only Brethine. He notes no drug aller-

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<sup>46</sup>For examples of the material that may be available in a typical case, see §§ 6-9.

<sup>47</sup>Am. Jur. 2d, Workmen's Compensation §§ 429-432.

gies and admits to smoking less than one pack a day of cigarettes for less than 20 years. He has not smoked for more than a year. He has not had cough, sputum production, or wheezing. He notes that he is not the same man that he used to be and has exertional shortness of breath walking a block or climbing a flight of stairs. Review of systems reveals a history of walking pneumonia many years ago. He thinks he might have some sort of heart trouble related to this industrial exposure, but this has never been documented. Previous surgery includes a cholecystectomy and a bowel resection and is of no clinical significance. He chews tobacco at this time and drinks no alcohol. There is no paroxysmal nocturnal dyspnea, orthopnea, clubbing, cyanosis, or edema.

### COMPLAINTS

“I have marked exertional shortness of breath.” “I cannot do my usual work.” “I can do only sedentary work.” “I can never work as a carpenter.” “I am despondent about this.”

**EXAMINATION:** *[omitted]*.

### DISCUSSION:

This gentleman who smoked little or no cigarettes, had no family history of pulmonary disease and had transient asthma (as a child), was essentially in good health until he was overcome by lacquer fumes. The direct toxins are as noted above. Review of *Gleason's Textbook of Pulmonary Disease* indicates that these toxins have a direct effect on the mucous membranes and, in my judgment, caused an acute chemical bronchitis and bronchiolitis. Indeed, *[family physician's]* description fits this and *[pulmonary specialist's]* appropriate treatment seems reasonable for this. This has very much resolved; however, I believe that there is a degree of pulmonary fibrosis which persists. This cannot be explained on the cigarette smoking or his “asthma” which has been commented on in the past. Indeed, *[pulmonary specialist]* has commented as recently as three months ago as to the recurrent tracheobronchitis related to this toxin. The patient has marked decreased functional reserve and cannot do his previous work. He can do work and is, indeed, willing to work, but does not wish to be tired out. He was put through minimal exercise walking approximately one-half block in the office today and had no symptomatology. I believe this individual had an acute episode with some chronic residuals that I will discuss below. The

direct effect of the three aforementioned chemicals is noted as above.

#### **OPINION:**

Based on review of the entire Industrial Commission chart, I believe the patient suffered a pulmonary disease or disorder due to or related to the industrial accident on *[date]*. I believe the disorder to be originally acute tracheobronchitis and acute bronchiolitis and bronchitis. This was manifested by wheezing, rhonci, and rales. There was a great deal of improvement, however, based on the clinical history and picture today, as well as minimal recurrent residual tracheobronchitis. Indeed, the patient must continue to take medications. Based on my review, I believe that this individual suffers the aforementioned disorders related to his industrial exposure and is permanently and partially disabled approximately 35 percent of to total man.

### **B. USING MEDICAL CONSULTANTS**

#### **§ 36 In general**

Proof that the negligent exposure caused a particular condition, such as cancer, consists of three steps: (1) that the client has contracted a neurological, pulmonary, cardiac, oncological or other condition; (2) that the chemical involved is capable of producing the client's pathology; and (3) that the chemical in fact caused the condition. Expert testimony is required for all three steps, and it may require as many as three separate experts, although in most instances two experts will suffice.<sup>48</sup>

#### **§ 37 Treating physician**

The treating physician can be helpful to counsel in cases involving injury as the result of exposure to a toxic substance.<sup>49</sup> Although a medical specialist should be retained to examine

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<sup>48</sup>Locating Medical Experts, 2 Am. Jur. Trials 357; Use of Medical Consultants, 4 Am. Jur. Trials 253.

McElveen, "The Use of Experts in Toxic Litigation" G. Nothstein, ed., Toxic Torts: Litigation of Hazardous Substance Cases §§ 18.01-18.11 (Shephard's/McGraw Hill 1984).

<sup>49</sup>A doctor is an expert on health and in this capacity is competent to draw conclusions concerning a party's physical condition. Shirley v Drackett Products Co. (1970) 26 Mich App 644, 182 NW2d 726.

the client and testify to his condition,<sup>50</sup> use of the treating physician adds a good deal of weight to the specialist's testimony. The treating physician's testimony will be useful in illustrating the groundwork upon which the specialist bases an opinion on causation. The treating physician is also a fact witness to the client's gradual deterioration.

The drawbacks to using a treating physician as a causation expert are manifest, however. Many treating physicians will not be sufficiently current on the literature and recent research as the case may require. As a result, the treating physician may not be a good witness to establish proximate causation. If the treating physician is qualified and willing to make the causal connection, however, the physician's testimony should be used on that point. The treating physician was closest to the client during the development of the illness, and this proximity may carry a great deal of weight with the jury.<sup>51</sup>

### § 38 Medical specialist

Even where the treating physician is willing to causally connect the client's condition with the exposure, the use of a second expert, preferably a medical specialist, is advisable. Ideally, an attorney should select an expert familiar with toxicology and pharmacology who can explain for the jury how the chemical produces the client's condition. Explaining to a jury the pathology of the client's condition helps diffuse some of the mystery which may surround it. The expert should be well versed in the scientific literature, in studies concerning the chemical, and in the type of illness involved. Generally, this task falls to a toxicologist,<sup>52</sup> but a pharmacological expert may also be effective to establish the causal relationship between the client's condition and the chemical the client was exposed to.

Where a cancer has developed following the client's exposure, the final expert should be an expert on tumors and cancers, or

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Imbus, Buncher, Dyson, Thomas & Nothstein, "Health Professionals as Experts" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 19.01–19.27 (Shephard's/McGraw Hill 1984).

<sup>50</sup>See § 38.

<sup>51</sup>See, for example, *Shirley v Drackett Products Co.* (1970) 26 Mich App 644, 182 NW2d 726, where the testimony of the plaintiff's physician on causation was sufficient to warrant submitting plaintiff's case to the jury in an action against the manufacturer of a domestic cleanser that released chlorine and hydrogen chlorine gas when used.

<sup>52</sup>Qualification of Toxicologist, 12 Am. Jur. Proof of Facts 629.

in other words an oncologist.<sup>53</sup> Such a specialist should be able to give the jury a better understanding of cancer and reinforce the testimony of the other experts.

### § 39 —Preparing the expert

Once the expert has been selected, he or she should be given enough facts to be able to form and justify a professional opinion. Thus, the expert should be made fully aware of the client's medical history, including family history and record of any previous exposures. This means, of course, that all pertinent medical records must be provided to the expert, and that the expert should be given a detailed history of the client's exposure to the hazardous chemical or toxic substance, including the length and intensity of the exposure. Also, whenever possible, the expert should be given the opportunity to examine the client. If counsel has discovered important scientific or medical studies during the initial medical investigation, the expert should be given access to them for comment and analysis.

In a cancer causation situation, for example, the key issue is whether a causal link between the exposure and the condition may be made with the requisite certainty.<sup>54</sup> Although no court will force the expert to testify to a moral certainty, a trial judge will require the expert to testify to a sufficient certainty so that the jury is not forced to speculate. However, there is some division on what is sufficient certainty. Some courts hold that the testimony must show that the chemical was probably more than not a cause of the cancer. This means that there must be "more than 50 percent" or "within a reasonable degree of medical probability."<sup>55</sup> The expert should be fully informed of these requirements well in advance of his court appearance in order to make him comfortable with his opinion at the crucial junction of the case.<sup>56</sup>

The expert should be instructed well in advance of testifying

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<sup>53</sup>For a description of oncology as a medical specialty, see Am. Jur. Proof of Facts Fact Book p 639 § I:239.

<sup>54</sup>See, generally, Royal, *The Defense of Medical Causation*, 23 *Trial* 40 (Oct 1987).

<sup>55</sup>On the causation issue in toxic tort litigation generally, see Farber, *Toxic Causation*, 71 *Minn L Rev* 1219 (1987); Note, *Proving Causation in Toxic Tort Litigation*, 11 *Hofstra L Rev* 1299 (1983).

<sup>56</sup>For a further discussion of the issue of causation in the context of expert witness testimony, see §§ 97–100.

of the difference between “a” and “the.” As used in our language “a” and “the” are articles that occasionally are used interchangeably. They have specific and separate meanings, however. “The” when used before a noun such as “cause” is a definite article and has a specifying or particularizing effect. The word “a” is an indefinite article and applies to any one of a class or group. Thus, where “the” admits of no other, “a” refers to one of many. In the world of cause and effect, the difference may be great. Many variables go into the onset of many pathologies that result from toxic exposures, and in many cases one or more other factors may be implicated causally in the client’s condition. Generally, however, it is only necessary that the exposure be “a” cause of the client’s condition, or that the exposure was a substantial factor in bringing it about.<sup>57</sup>

#### § 40 — —Preparation Checklist

Counsel will find it helpful to draw up a short checklist of the major matters that should be covered when preparing the expert to testify. The following is an example of such checklist:

- Client’s preexposure medical history
- Facts of the exposure
- Structure of chemical involved
- Timing and intensity of exposure
- Number and frequency of exposures
- Client’s medical history
- Pathology of the client’s condition
- Pertinent medical records
- Pertinent literature on the chemical
- Reasonable degree of medical probability
  - More than 50 percent
  - “A” cause rather than “the” cause

#### C. DETERMINING THE FACTS

##### § 41 In general

The factual investigation of a toxic exposure case requires consideration of matters in at least two stages. The first stage

<sup>57</sup>See the cases collected in Admissibility of opinion evidence as to cause of death, disease, or injury, 66 A.L.R. 2d 1082.

calls for an investigation of the site where the exposure occurred.<sup>58</sup> The second stage consists of interviews with appropriate witnesses.<sup>59</sup> Both stages are aimed at confirming the fact of and nature of the client's exposure as well as discovering the facts that will enable counsel to prove liability.

#### Cases

Plaintiffs in toxic tort litigation could not discover information considered by grand jury during criminal investigation of same corporate defendant. Plaintiffs can not piggyback on grand jury's investigation but must instead show relevancy of information sought to their civil claims. *Cook v Rockwell Int'l Corp.* (1993, DC Colo) 147 FRD 237, class certif gr (DC Colo) 151 FRD 378.

### § 42 Site investigation

In the illustrative fact situation of the model trial,<sup>60</sup> the exposed worker was a carpenter at a major construction site. In such a case, the attorney should, if possible, personally inspect the place of exposure with a trained investigator. If counsel is unable to accompany the investigator, the latter should be thoroughly briefed before he or she visits the site.<sup>61</sup> A safety engineer should also inspect the site when it is suspected that the general contractor or a subcontractor failed to take adequate precautions to protect workers in the area where the hazardous chemical or toxic substance was being used.<sup>62</sup> The safety engineer will have the background and training to pinpoint safety violations, as for example, where there have been problems with lack of ventilation or protection for the workers. Extensive photographs should be taken of the scene by an investigator, photographer, and/or the attorney and the safety expert to insure that everything of evidentiary value has been retained.<sup>63</sup>

Since construction sites are subject to rapid change, the client should accompany the expert and the attorney to the site to explain any alterations at the site and to make the safety expert more aware of the actual conditions at the time of the

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<sup>58</sup>See § 42.

<sup>59</sup>See §§ 43, 44.

<sup>60</sup>See §§ 3–8.

<sup>61</sup>On investigating the scene of the accident in public liability claims, see *Investigating Particular Civil Actions*, 2 Am. Jur. Trials 1 § 3.

<sup>62</sup>For a list of industrial hygiene and toxicology experts, see § 108.

<sup>63</sup>On professional photography, see *Investigating the Civil Case; General Principles*, 1 Am. Jur. Trials 357 § 22.

exposure. Obviously, if construction has been completed, the site may be totally changed or impossible to enter. In that situation, the safety expert should be given access to any percipient witness, including the client, in order to get a clear understanding of the situation as it existed at that time and the precautions that should have been taken.

### § 43 Finding fact witnesses

Counsel should make every effort to obtain the names and addresses of fact witnesses at the client's initial interview. This is the best time to learn about fact witnesses.<sup>64</sup> The client will know who was working with him and who may have been a witness to the exposure. If the client's memory is hazy, or if the client does not know who was working with him at the time of exposure, the attorney should consult the client's union. Union records can give the names of all those working on a particular job site at a particular time. Additionally, the union officials, especially stewards, may know the names of others who have suffered exposure from the same substance and are bringing similar claims. Interviews with these individuals often lead to the discovery of additional witnesses.<sup>65</sup>

### § 44 Witness Interview Checklist

It is best to interview fact witnesses in a straightforward manner. Most such witnesses are the clients' coworkers and are likely to be sympathetic with the client's claim. Most of them will realize that if the dangerous condition is not recognized and dealt with it is very possible that they will meet the same fate some day. When interviewing such witnesses, counsel should make every effort to build rapport with them on behalf of the client, so as to receive their cooperation and help.<sup>66</sup>

The questioning should be broad at the start, consisting of general questions about the way the site was run and about the client. Then counsel should have the witness narrate the facts of the exposure. After the narration, the attorney should ask specific questions of the witness, including whether or not the witness has suffered any ill effects from being exposed to

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<sup>64</sup>See § 25.

<sup>65</sup>On interviewing witnesses and parties during the investigation, see *Investigating the Civil Case; General Principles*, 1 Am. Jur. Trials 357 §§ 11–14.

<sup>66</sup>*Locating and Interviewing Witnesses*, 2 Am. Jur. Trials 229.

the same substance. The attorney should take copious notes, or use a tape recorder if the witness consents to such use, and, where possible, prepare a written statement for the witness to sign.<sup>67</sup>

In interviewing a witness, counsel should try to:

- Establish rapport between counsel, witness, and client
- Determine whether witness knows client personally
- Obtain a description of accident site
- Find out all that the witness knows about the accidental exposure
- Discover the names or identity of other witnesses
- Determine the witness's reaction to the client's exposure

## VI. PRESUIT CONSIDERATIONS

### § 45 In general

Thorough presuit preparation is often the key to a speedy resolution of a toxic exposure case. If counsel prepares the case properly at the start, he or she will be able to push for a quick trial and put pressure on the defense to settle. Counsel will also be able to control the pace of discovery and put the onus and expense of discovery on the defense. A thorough investigation is crucial for the plaintiff's attorney. For example, if counsel has been able to obtain comprehensive signed statements from potential witnesses, the time and expense of taking depositions from those individuals may be saved. That burden will then fall on the defendant, and plaintiff's counsel may be able to limit depositions to witnesses who are beyond control, such as employees and representatives of defendants.

If plaintiff's counsel has a strong case, and has completed most of the work during investigation, he or she should take advantage of that strength and press for an early trial, which, of course, will limit the defendant's time to conduct discovery.

### § 46 Depositions to perpetuate testimony

Some trial attorneys take the view that it is best to wait for the case to ripen before filing a lawsuit. One major difficulty with waiting, however, may be the condition of plaintiff's

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<sup>67</sup>On the attorney as investigator, see *Investigating the Civil Case*; *General Principles*, 1 Am. Jur. Trials 357 § 3.

health. If the client is suffering from a progressive and increasingly debilitating disease, trial counsel's ability to use him or her as a witness may be seriously impaired. However, this should not mean that counsel should rush the case into litigation before investigation has been completed. Instead, counsel should consider taking the client's deposition before suit to perpetuate his or her testimony. Most states have provisions for presuit depositions patterned on the federal rules.<sup>68</sup>

The benefit of taking the client's deposition before suit, however, should be weighed against the loss of the element of surprise. Surprise has several advantages. First, there may be less time for the defendants to investigate the case and prepare the defense. Second, greater time may be available for plaintiff's counsel to contact and interview the client's coworkers and conduct other investigation into the liability of all possible defendants. These advantages may be lost when counsel takes client's presuit deposition. However, the risk of losing plaintiff as a witness may be too great to delay the client's deposition until after the action has been filed.

When conducting a presuit deposition to perpetuate testimony, the plaintiff's attorney must keep several things in mind. First, the attorney should schedule the deposition of the client in conformity with his or her treatment schedule. The periods when a person in chemotherapy, for example, can best be deposed should be carefully considered. Such a person may have difficulty remembering and relaying facts clearly at certain times during the course of treatment. Second, plaintiff's counsel should keep his or her direct examination short and to the point, although it should be thorough enough to cover all the material facts to which the client can testify. Then, if defense counsel's cross-examination becomes so intense as to jeopardize the health or stamina of the client, the attorney will be faced with the need to decide whether to halt the deposition. This he or she should not hesitate to do if indeed the client's health is at stake. However, counsel should also keep in mind that a tenacious cross-examination may aid the case by causing the jury to feel sympathy for the plaintiff. Counsel should also bear in mind that there is danger that, if the plaintiff's attorney halts the deposition, the court will strike the deposition at trial for the failure to permit cross-examination. Finally, if permissible, the attorney should attempt to videotape the de-

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<sup>68</sup>Am. Jur. 2d, Depositions and Discovery §§ 118-129.

position of the plaintiff.<sup>69</sup> The visual impact of a plaintiff wasting away from a debilitating disease attributable to a wrongful exposure to a toxic substance can have a devastating effect on defendant's case.

### § 47 Plaintiff's pleadings

The following illustrative complaint based on the model trial case<sup>70</sup> has been drafted for use in a notice pleading jurisdiction.<sup>71</sup> Notice pleading requires only that sufficient information be given to put the opposing party on notice of a claim. Generally, this means that the drafter of the pleading may limit the factual allegations to statements of ultimate facts and use general charging allegations of liability. Where specific facts are required to be pleaded, they should be stated with particularity to bolster the claims of liability.<sup>72</sup>

The illustrative complaint herein is based on the model trial factual pattern with the added assumption that the plaintiff died as a result of the condition he sustained by being exposed to the toxic substance after a prolonged period of illness. Thus, the "plaintiff" referred to in the complaint is the personal representative of the client's estate. The illustrative complaint further assumes that the jurisdiction permits the recovery by the decedent's estate of general and special damages incurred by the decedent prior to death as well as the recovery of wrongful death damages by the decedent's survivors, punitive damages, attorney's fees and prejudgment interest on the award.<sup>73</sup>

### § 48 Illustrative Complaint

The complaint below is an illustration of pleading in a third-party liability action for negligence against the owner of the

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<sup>69</sup>Use of Videotape in Civil Trial Preparation and Discovery, 23 Am. Jur. Trials 95.

<sup>70</sup>See § 48.

<sup>71</sup>For another form of a complaint in an action by an employee of an independent contractor against another contractor for injuries received as a result of the negligence of the latter at the same worksite, see 18A Am. Jur. Pleading and Practice Forms, Negligence, Form 58.

Tactics and Strategy of Pleading, 3 Am. Jur. Trials 681.

<sup>72</sup>Travis, "Allegations" in G. Nothstein, ed., Toxic Torts: Litigation of Hazardous Substance Cases §§ 13.01-13.09 (Shephard's/McGraw Hill 1984).

<sup>73</sup>On the remedies generally available in toxic tort litigation, see Barnard, "Remedies" in G. Nothstein, ed., Toxic Torts: Litigation of Hazardous Substance Cases §§ 12.01-12.17 (Shephard's/McGraw Hill 1984).

premises where plaintiff was working, the general contractor or site manager of the worksite, the independent subcontractor (painting contractor) that was spraying the sealant which created the fumes which caused the decedent's injury, and, finally, the manufacturer and seller of the substance that contained the toxic chemicals.<sup>74</sup>

### COMPLAINT FOR DAMAGES

*[Title of court and cause, introductory statements, and preliminary allegations respecting jurisdiction, venue, and fictitious defendants omitted.]*

#### Count I

#### (Negligence of Painting Subcontractor)

1. At all times relevant defendant \_\_\_\_\_ *[painting contractor]* was a corporation licensed to conduct business in the state of \_\_\_\_\_ and was at all times relevant a contractor engaged in the application of certain chemicals at \_\_\_\_\_ *[construction site]*.

2. At all times relevant defendant \_\_\_\_\_ *[general contractor—site manager]* was a corporation licensed to conduct business in the state of \_\_\_\_\_ and at all times relevant was managing and supervising the work being done at said construction site.

3. At all times relevant defendant \_\_\_\_\_ *[chemical manufacturer]* was a corporation licensed to conduct business in the state of \_\_\_\_\_ and was at all times relevant the manufacturer and distributor of an industrial solvent known as \_\_\_\_\_ *[brand name of solvent]*, which contained the following chemicals: \_\_\_\_\_ *[identify ingredients or particular hazardous chemical or toxic substance]* used at the construction site for \_\_\_\_\_ *[describe use and application]*.

4. On or about \_\_\_\_\_ *[date of exposure]* defendant \_\_\_\_\_ *[painting contractor]* was applying \_\_\_\_\_ *[brand name of solvent]* at the construction site with knowledge of the existence of unprotected workers, including plaintiff, in the application area.

5. Defendant \_\_\_\_\_ *[painting contractor]* so negligently

<sup>74</sup>Whom To Sue—Multiple Defendants, 5 Am. Jur. Trials 1; Hidden and Multiple Defendant Tort Litigation, 25 Am. Jur. Trials 1.

Comment, Unearthing Defendants in Toxic Waste Litigation: Problems of Liability and Identification, 19 S Diego L Rev 891 (1982).

and carelessly used and applied \_\_\_\_\_ [*trade name of industrial solvent*] as to cause toxic fumes to be distributed throughout the area where plaintiff was working with the further proximate result that plaintiff was exposed to the hazardous chemicals contained in those fumes.

6. Defendant \_\_\_\_\_ [*painting contractor*] further negligently allowed its officers, employees, and agents to expose plaintiff to certain hazardous chemicals.

7. As a proximate result of said exposure, plaintiff suffered great injury to his \_\_\_\_\_ [*injured areas*], which resulted in \_\_\_\_\_ [*condition caused by toxic exposure*] and which caused the plaintiff to suffer great pain and suffering; and as a further proximate result of defendant's negligence plaintiff incurred medical bills and lost wages, which damages will continue in the future.

### Count II

#### (Negligence of General Contractor)

8. Plaintiff hereby realleges paragraphs one through seven herein as if fully rewritten.

9. On or about \_\_\_\_\_ [*date*] defendant \_\_\_\_\_ [*general contractor—site manager*] was supervising the application of certain chemicals by \_\_\_\_\_ [*painting contractor*] and knew or should have known of the existence of unprotected workers, including plaintiff, in the application area.

10. Defendant \_\_\_\_\_ [*general contractor—site manager*] negligently supervised the work area and further negligently allowed its officers, employees, agents, or others under its supervision to expose plaintiff to certain toxic fumes containing hazardous chemicals.

11. As a direct and proximate result of said negligence, plaintiff suffered the injuries and damages alleged above.

### Count III

#### (Statutory Duty of General Contractor)

12. Plaintiff hereby realleges paragraphs one through eleven herein as if fully rewritten.

13. On or about \_\_\_\_\_ [*date*], defendant \_\_\_\_\_ [*general contractor—site manager*] had a statutory duty under \_\_\_\_\_ [*frequenter statute*] to provide a workplace that was safe for its employees and others frequenting the work site.

14. Defendant \_\_\_\_\_ [*general contractor—site manager*] negligently failed to provide a workplace that was safe for its employees and others frequenting the work site.

15. As a direct and proximate result, plaintiff (or plaintiffs decedent) suffered the injuries and damages alleged.

#### Count IV

##### (Negligence of Chemical Manufacturer)

16. Plaintiff hereby realleges paragraphs one through fifteen as if fully rewritten herein.

17. Said product manufactured and distributed by defendant \_\_\_\_\_ [*chemical manufacturer*] was negligently designed, labeled, produced, manufactured, and distributed by defendant, and contained improper warnings.<sup>75</sup>

18. As a direct and proximate result plaintiff was exposed to a defective, unreasonably dangerous and hazardous product.

19. As a direct and proximate result plaintiff suffered the injuries and damages alleged.

#### Count V

##### (Chemical Manufacturer's Failure to Warn)

20. Plaintiff hereby realleges paragraphs one through nineteen herein as fully rewritten.

21. Defendant \_\_\_\_\_ [*chemical manufacturer*] manufactured a chemical product known as \_\_\_\_\_ [*brand name of solvent*] which contained \_\_\_\_\_ [*identify ingredients or particular hazardous chemical or toxic substance*] to which plaintiff was exposed on \_\_\_\_\_ [*date*] as alleged above.

22. Said product was in a dangerous condition which, when used in its intended or reasonably foreseeable manner, exposed plaintiff to unreasonable danger beyond the expectations of an ordinary person.

23. Defendant \_\_\_\_\_ [*chemical manufacturer*] was aware of the dangerous propensities of its product but negligently

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<sup>75</sup>In most jurisdictions a count for strict liability in tort may be made against the chemical manufacturer. See Am. Jur. 2d, Products Liability §§ 528–577, 751.

failed to apprise users of the dangerous propensities of said product.<sup>76</sup>

24. As a direct and proximate result, plaintiff suffered the injuries and damages alleged above.

#### Count VI

##### (Breach of Warranty)

25. Plaintiff hereby realleges paragraph one through twenty-four herein as if full rewritten.

26. Defendant \_\_\_\_\_ [*chemical manufacturer*] impliedly warranted that said product was safe and fit for its intended purposes.<sup>77</sup>

27. Said product was not safe, nor fit for its ordinary purposes.

28. As a direct and proximate result, plaintiff was exposed to an unreasonably dangerous and hazardous product.

29. As a direct and proximate result of said exposure, plaintiff suffered the injuries and damages alleged above.<sup>78</sup>

#### Count VII

##### (Punitive Damages)

30. Plaintiff hereby realleges paragraphs one through twenty-nine herein as if fully rewritten.

31. The above described actions of all defendants were in willful and wanton disregard of the rights of plaintiff in exposing him to dangerous and toxic chemicals.<sup>79</sup>

32. As a direct and proximate result of said behavior plaintiff's decedent suffered the injuries and damages alleged above.

WHEREFORE, plaintiff requests judgment in the amount of \$\_\_\_\_\_, compensatory damages, plus \$\_\_\_\_\_, punitive damages, plus costs incurred herein.

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<sup>76</sup>In some jurisdictions, a manufacturer's failure to warn of a product's dangerous propensities may also be the basis of a cause of action for strict liability in tort. See Restatement (Second) of Torts § 402a (1965).

<sup>77</sup>Breach of warranty liability may not be available to bystanders in some jurisdictions. See Am. Jur. 2d, Products Liability §§ 597-613.

<sup>78</sup>In some jurisdictions a further allegation of notice of breach of warranty may be required. See Am. Jur. 2d, Products Liability §§ 521-525.

<sup>79</sup>In some jurisdictions it is necessary to allege facts showing the requisite animus to support an award of exemplary or punitive damages. See Am. Jur. 2d, Damages § 293.

*[Dating, subscription, and verification, where required, omitted.]*

## VII. DISCOVERY

### A. GENERALLY

#### § 49 In general

Plaintiff's discovery tactics will depend on several factors. First, discovery should be conducted with a view to eliminating or adding defendants as more facts are disclosed. Second, plaintiff's attorney should try to gauge the defendants' knowledge of the dangerous propensities of the chemical implicated in the client's injury. Finally, the discovery should attempt to gain an understanding of defense counsel's case through deposition of adverse witnesses.<sup>80</sup>

### B. DEPOSITIONS

#### § 50 In general

Plaintiff's attorney should take only a few depositions.<sup>81</sup> Except for expert depositions, the plaintiff should take most of the depositions with an eye towards establishing liability. Plaintiff's attorney should take the depositions of the foremen for both the general contractor or site manager and the painting contractor. At these depositions plaintiff's attorney should try to show control over the work or worksite by the site manager. Counsel should also consider deposing an official or engineer of the chemical manufacturer.<sup>82</sup>

#### § 51 Deposition Checklist—Chemical Manufacturer

Set forth below is a checklist of areas of inquiry by way of a deposition of an official of the chemical manufacturer.<sup>83</sup> The deposition should do three things: (1) discover information about the chemical or chemicals in the industrial solvent that was involved in the case, (2) seek out information regarding the chemical company's knowledge of the hazardous and toxic

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<sup>80</sup>Goldsmith, "Pleadings and Discovery" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 15.01–15.23 (Shephard's/McGraw Hill 1984).

<sup>81</sup>Discovery-Oral Depositions, 4 Am. Jur. Trials 119.

<sup>82</sup>Use of Engineers as Experts, 6 Am. Jur. Trials 555.

<sup>83</sup>For model forms interrogatories propounded by plaintiff against the painting contractor and the chemical manufacturer, see §§ 56–75.

nature of the solvent's active ingredients, and (3) compel the disclosure of other information that may be needed to establish the liability of that defendant.

### CHECKLIST—CHEMICAL MANUFACTURER

- Did defendant supply or sell any products to the painting contractor?
- The trade name of the product
- The chemical composition of the product, including brand names, chemical names and chemical structures
- The place of manufacture of the product
- The place of manufacture of each component or ingredient
- The name of the firm that manufactures or supplies each component or ingredient
- The manufacturing process for the product
- The point of origin of the shipments to the painting contractor
- Whether any studies were undertaken on the effects of the compound, either by the company or of which the company became aware prior to the date of exposure
- The names of each and every organization participating in or sponsoring the study
- The date of the study
- The persons involved in the study
- Date and place of any publication of the study
- Did the chemical manufacturer supply any products for use at the exposure site
- For each chemical named above, request information regarding:
  - Liability
  - Advertisements
  - Instruction booklets
  - Publications
  - Actual physical or verbal instructions regarding its use
  - Warnings given regarding its use
- Additional or amended instructions or warnings supplied after the sale

- Date of above
  - Where above was placed or provided
  - How above was placed or provided
  - Names of those responsible for them
  - Reason for them
- Names of all those who have knowledge of facts relevant to complaint
  - Liability insurance
  - Facts known by the witness
  - Opinions held by the witness as to cause of injury or death

Counsel should note that the last entry on the checklist requests what may be regarded as an expert opinion. Some states permit the deposition of an expert only if he or she has been identified as a trial witness. Some states also require that expert opinions, where discoverable, be updated as to the after-acquired facts, and other states, following the federal rules, may require initial expert discovery to be conducted through written interrogatories.<sup>84</sup>

### § 52 — Painting contractor

If the name of the employee of the contractor who made the application of the sealant which produced the toxic fumes the plaintiff inhaled is known through investigation or other discovery, the deposition of that individual should be taken as soon as possible.<sup>85</sup> In preparing for the deposition of such a witness, counsel may find the following checklist helpful.

#### CHECKLIST—PAINTING CONTRACTOR

- Were you spraying paint on the exposure date?
- State each and every product sprayed on the date
- Source of each product
- Chemical makeup of each product
- Name, source, and chemical makeup of each product sprayed at the exposure site
- Dates of application of each chemical
- Name of foreman on exposure date

<sup>84</sup>See, generally, Am. Jur. 2d, Depositions and Discovery §§ 68–74.

<sup>85</sup>For model interrogatories propounded by plaintiff to the painting contractor in the model trial case, see §§ 56–68.

- Name, address of each person spraying on exposure date
- Name of any site supervisor
- Name of any contractors hired to spray
- Name of anyone else spraying on exposure date
- Name of general contractor
- Name of each representative of general contractor dealt with
- Date spraying terminated
- Reason spraying terminated
- Names of those who have information or facts relevant to allegations in complaint
- Liability insurance
- Expert witnesses
- All other relevant facts known by the witness

### § 53 — Site manager

The third important deposition will ordinarily be of the superintendent or foreperson of the site manager or general contractor. Deposition should be taken to establish the extent of control over the site by the manager or the general contractor. The plaintiff's attorney should attempt to prove that the general contractor or site manager retained some control over the subcontractors and the performance of their work.<sup>86</sup>

### **CHECKLIST—GENERAL CONTRACTOR OR SITE MANAGER**

- Time spent on site
- When did project begin
- When was defendant hired
- Who was having work done
- Contract for work done at site
- Who were parties
- Who negotiated it for both sides
- Who has custody of contract

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<sup>86</sup>See § 13.

- How was firm selected
- Who selected firm
- Other similar work
- When and for whom work was done
- Selection of subcontractors
- How selection handled
- Who negotiated contracts for both sides
- Alterations of agreements by whom and for what reason
- Who has custody of contract
- Written guidelines for subcontractors
- Describe date, source, issuing party, author, contents, etc.
- Oral guidelines
- Dates, source, issuing party, issuing person
- Parties to oral guidelines
- Name and address of all foremen or managing personnel at site
- Name and address of all personnel at site during exposure
- Written duties for supervisors
- Did defendant attend or hold safety meetings
- Who attended
- Who ran meeting
- Dates or frequency of meetings
- Reason for meetings
- Records or minutes kept
- By whom
- Custody
- Names and addresses of all those who have knowledge of or witnessed incident

#### § 54 Defense Discovery Preparation—Checklist

In addition to conducting discovery, counsel must prepare the client for discovery conducted by the defense, whether by deposition or by written interrogatories. The checklist below identifies some of the areas to which attention should be directed.

- Personal Facts

- Name, address, and age
- Spouse's name, age, year of marriage
- Names, ages of children or other next of kin who may be eligible to recover for damages, and relation
- Complete work history
- Use of pesticides, spray paint, cigarettes
- Complete medical history, including doctors, hospitals
- Past illnesses, especially problems with infected area
- Family history of condition and related illnesses
- Present injuries and symptoms
- Name of treating physician
- Dates and sites of treatment
- Bills for treatment
- Date condition diagnosed
- Diagnosing physician
- Date, place of death, if applicable
- Circumstances of exposure
- Date and site of exposure
- Location within site of exposure
- Names of fellow workers
- Name of foreman
- Length of time exposed
- Length of time and dates of work at site
- Other exposures
- Protective devices issued and by whom
- Name of chemical exposed to
- Distinctive markings on container of chemical
- Other times the chemical was sprayed
- Items of damages
- Each and every person with knowledge regarding case
- Medical expert's name
- Facts known and opinions held

**Cases**

**Plaintiffs' medical records:** Defendants in toxic tort case were entitled to discovery regarding plaintiffs' medical records, though

plaintiffs sought to recover only medical monitoring costs and were not contending that they had as yet sustained any personal injuries as result of their exposure to hazardous substances allegedly released from defendants' facilities; court could not say that interrogatory was not reasonably calculated to lead to discovery of relevant information as to other risk factors that might bear on plaintiffs' claims. *O'Connor v. Boeing North American, Inc.*, 185 F.R.D. 272 (C.D. Cal. 1999); West's Key Number Digest, Federal Civil Procedure ¶1598.

### C. REQUESTS FOR PRODUCTION OF DOCUMENTS

#### § 55 In general

The plaintiff's attorney should request production of the documents identified and inquired about in the interrogatories or at the depositions of employees of the defendants.<sup>87</sup> Counsel should also request the production of various work reports, contracts, and studies that may be needed to prove the underlying facts of liability or otherwise bolster the case.

#### DOCUMENT PRODUCTION CHECKLIST

##### *Chemical Companies*

- Warning labels, instruction booklets, flyers, updates, warnings, etc.
- All studies done by or for the company
- All studies done regarding the chemical in their possession within their knowledge at exposure date
- All internal documents regarding chemical
- All advertisements, technical journals, articles regarding the chemical
- Bills of sale, invoices from manufacturer to painting contractor
- Packaging materials

##### *Painters and Site Managers*

- Contracts, or written understandings
- Any written instructions, duties, etc.
- Safety manuals, etc.
- Work records showing dates of spraying
- Notes and minutes of safety meetings

<sup>87</sup>Motions for Production and Inspection, 4 Am. Jur. Trials 223.

## D. INTERROGATORIES

1. *To Painting Contractor*

## § 56 In general

This division of the article<sup>88</sup> consists of a set of interrogatories propounded by plaintiff to the defendant painting contractor, who it was determined was the principal defendant in the model trial case. These interrogatories are quite extensive and are intended to explore all aspects of the case against defendant painting contractor. For convenience, the interrogatories have been separated into sections. It should be kept in mind, however, that the sections are but parts of an entire set of interrogatories.<sup>89</sup>

## § 57 Definitions

The use of a prefatory section in the interrogatories to define particular terms used throughout the interrogatories is highly recommended to avoid the overuse of qualifications and repetitive subparts and to simplify and enhance the intelligibility of the questions posed.

## DEFINITIONS

A. The word “person” means any natural person, firm or corporation, partnership, joint venture or any other form of business entity.

B. A request for the location of documents constitutes a request to state the present address at which such documents are kept, if known, and, if not known, the last address known and information as to their disposition.

C. A request for the identity of a person constitutes a request for his or her name, his or her present business address, if known, and if not known, his or her last known business and residence address.

D. “Custodian” means the person who has possession or control of documents and a request for the identity of a custodian constitutes a request for his home and address.

E. “Defendant” refers to \_\_\_\_\_ [*painting contractor*].

F. The words “you” and “your” refer to the party to whom these interrogatories are addressed and to its agents, representatives, and attorneys.

<sup>88</sup>See §§ 56–68.

<sup>89</sup>For illustrative interrogatories to the manufacturer of the sealant that was being sprayed at the time of the plaintiff’s exposure, see §§ 69–75.

**§ 58 Capacity in Which Work Was Performed**

Following the definitions, interrogatories respecting preliminary identification matters are normally set forth. In the illustrative set below the interrogatories are numbered consecutively throughout the subdivision.

## INTERROGATORIES

1. Plaintiff alleges in his complaint that he was injured during the course of his work at \_\_\_\_\_ [*name of construction site*] in \_\_\_\_\_ [*location*] on \_\_\_\_\_ [*date*]. Were you engaged in business on those premises on that date?

2. If so, state:

- a. the nature of the business;
- b. whether you conducted business as a sole proprietorship, partnership, or corporation;
- c. the name under which you conducted business.

3. Were you performing services as an independent contractor on \_\_\_\_\_ [*date of accident*] on the premises where plaintiff alleges he was injured?

4. If so, state:

a. whether the services were being performed in the capacity of a general contractor, and if so, state:

- (1) the name, address, and business status of each person for whom the services were to be performed;
- (2) the property interest of each such person in the premises in question;
- (3) the exact nature of the services to be performed;
- (4) the time designated for performance of the services;

b. whether the services were being performed as subcontractor, and if so,

- (1) the name, address, and business status of each general contractor for whom the services were being performed;
- (2) the exact nature of the services to be performed;
- (3) the time designated for performance of the services;

c. whether you had any agents or employees on the premises engaged in performance of the services on \_\_\_\_\_ [*date of accident*], and if so, state:

- (1) the name, address, and general job title of each such agent or employee;
- (2) the exact nature of the work performed by such employee on the premises in connection with rendition of the services on \_\_\_\_\_ [*date of accident*].

5. In regard to any agreement under which you were to perform the services, state:

- a. the name and address of each party to such agreement;
- b. the date on which each such agreement was made;
- c. whether each agreement was oral or written.

6. In regard to each written agreement enumerated in your preceding answers, give the name, address, and position or job title of each person who has custody of the written agreement.

7. Attach a copy of each such agreement to your answers to these interrogatories.

### § 59 Notice of Presence of Plaintiff

The defendant's knowledge of plaintiff's presence at the place where the injury occurred is an important consideration in proving the negligence of the painting contractor in a fact situation such as in the model trial, and the following interrogatories are designed to inquire into that fact.

#### INTERROGATORIES

8. Did you, or any of your agents or employees, have notice or knowledge that persons would be working generally on the premises in question on \_\_\_\_\_ [*date of accident*]?

9. If so, state:

- a. the name, address, and position or job title of each person who had such notice or knowledge;
- b. the means by which each person received such notice or knowledge;
- c. which of the persons had notice or knowledge that plaintiff would be working on the premises on \_\_\_\_\_ [*date of accident*].

10. Did you, or any of your agents or employees, have notice or knowledge that persons would be working on the premises in question on \_\_\_\_\_ [*date of accident*] at the location on the premises where plaintiff alleges he was injured?

11. If so, state:

- a. the name, address, and position or job title of each person who had such notice or knowledge;
- b. the means by which each person received such notice or knowledge;
- c. which of the persons had notice or knowledge that plaintiff would be working on \_\_\_\_\_ [*date of accident*] at the location on the premises where he alleges he was injured.

## § 60 Method of Applying Product Containing Toxic Chemicals

The following interrogatories inquire into the method of application followed by the defendant's employees in spraying the sealant that produced the toxic fumes in the model trial case. The answers to the questions were correlated with defendant contractor's written application instructions, which were obtained by other discovery.<sup>90</sup>

### INTERROGATORIES

12. Were any of your employees involved in the application of \_\_\_\_\_ [*product containing toxic chemicals*] or any other similar products at the \_\_\_\_\_ [*construction site*] on \_\_\_\_\_ [*date of accident*]?

13. If so, state:

- a. the exact product name and chemical composition of each product used;
- b. the name, address, and position or job title of each employee involved;
- c. the exact nature of the responsibilities and duties of each employee with respect to the product.

14. Please describe in detail the method, including equipment used, by which your employees applied \_\_\_\_\_ [*product containing toxic chemicals*].

15. Did your employees ever use any different method for the application of \_\_\_\_\_ [*product containing toxic chemicals*]. If so, please describe.

16. What methods of training did you provide your employees for the application of \_\_\_\_\_ [*product containing toxic chemicals*]?

17. Were any warning labels or other cautionary information or instructions provided for the use of the \_\_\_\_\_ [*product containing toxic chemicals*]?

18. If so, state with specificity:

- a. the exact content of each warning label or cautionary instruction;
- b. the source of the warning or information;
- c. the means by which such information was conveyed;
- d. the name, address, and position or job title of each of defendant's employees or agents having knowledge of each

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<sup>90</sup>See § 6.

warning immediately prior to or at the time of plaintiff's injury.

19. Did you, or any of your agents or employees issue any safety regulation, rule or order which was in effect on \_\_\_\_\_ *[date of accident]* which related to type of hazard to safety which plaintiff alleges caused his injury?

20. If so, for each such regulation, rule or order, state:

- a. the date on which issued;
- b. the name, address, and position or job title of each person who issued the regulation, rule or order;
- c. the title and number by which the regulation, rule or order may be identified;
- d. the name, address, and position or job title of each person on the premises where plaintiff was injured who had notice of the regulation, rule or order on \_\_\_\_\_ *[date of accident]*;
- e. the name, address, and position or job title of each person who has custody of a copy of the regulation, rule or order.

21. Attach a copy of each regulation, rule or order to your answers to these interrogatories.

22. Was there any statute, ordinance, regulation, rule or order enacted or promulgated by a governmental authority in effect on \_\_\_\_\_ *[date of accident]* which related to the type of safety hazard that plaintiff alleges caused his injury?

23. If so, for each such statute, ordinance, or regulation, rule or order, state:

- a. the name of the governmental entity or agency which enacted or promulgated it;
- b. its identifying name and number;
- c. the name and address of each entity or agency charged with enforcing it;
- d. the name, address, and position or job title of each person on the premises where plaintiff was injured who had notice of the statute, ordinance, regulation, rule or order on \_\_\_\_\_ *[date of accident]*.

24. State the name, address, and position or job title of each person on the premises where plaintiff was injured who had responsibility for compliance with or enforcement of any safety warnings, precautions or regulations.

25. Did any of your employees or agents determine whether adequate ventilation existed in the area in which the \_\_\_\_\_ *[product containing toxic chemicals]* was used prior to its use on the date in question?

26. If so, state:

- a. the name, address, and position or job title of each person who made this determination;
- b. the facts upon which that person relied in making the determination.

27. Were your employees ever warned or reprimanded for improper or unsafe use of \_\_\_\_\_ [*product containing toxic chemicals*]?

28. If so, please state, for each such incident:

- a. the date(s);
- b. the place(s);
- c. the employee(s) involved;
- d. the nature of the incident;
- e. what punishment or sanction was meted out;
- f. who (name and job title) discovered the incident;
- g. what damage or injury was caused.

29. Has \_\_\_\_\_ [*product containing toxic chemicals*] (or any similar chemical) or its use ever been the subject of a government investigation?

30. If so, for each such investigation, please state:

- a. the government agency conducting such investigation;
- b. the date(s);
- c. what prompted the investigation;
- d. the city and state of the government agency;
- e. the results of the investigation.

31. On the date of the injury to \_\_\_\_\_ [*plaintiff*], what weather conditions prevailed at \_\_\_\_\_ [*construction site*]?

32. Have any of your employees ever complained about adverse physical or mental effects from the use of \_\_\_\_\_ [*product containing toxic chemicals*]?

33. If so, please state for each such complaint:

- a. the employee, employee's address and telephone number;
- b. the date;
- c. the symptoms complained of;
- d. any medical treatment given;
- e. what measures taken to prevent recurrence.

### § 61 Use of Product Testing Procedures

Product testing is normally a subject of discovery with respect to the chemical manufacturer in a toxic exposure case. However, testing may also be done by the painting contractor,

particularly with respect to especially hazardous substances. The following interrogatories inquire into whether or not this was done in the model trial case.

#### INTERROGATORIES

35. Did you perform any tests conducted with respect to \_\_\_\_\_ [*product containing toxic chemicals*] to determine whether there was a change in its toxicity or action when combined with other chemicals?

36. If so, for each such test, state:

- a. the date it was performed;
- b. the place at which it was performed;
- c. the name, address, telephone number, and job title or capacity of each person who participated in its performance;
- d. the number of samples of \_\_\_\_\_ [*product containing toxic chemicals*];
- e. the common or trade name, chemical formula, and scientific name of each chemical with which it was combined;
- f. the description of the method of combination, including quantities which were combined;
- g. the description of any testing equipment used;
- h. the description of the testing procedure;
- i. the reason for such testing;
- j. the results of the test;
- k. the method by which results were computed;
- l. the cost of the test;
- m. the name, business address and business telephone number and job title or capacity or the person who has custody of any records pertaining to such test.

37. Please attach any and all records pertaining to each test described in response to the previous interrogatory.

38. Did you perform any tests with respect to \_\_\_\_\_ [*product containing toxic chemicals*] to determine whether there was a change in its toxicity, chemical nature, or action, when exposed to heat or electromagnetic radiation?

39. If so, please state for each such test:

- a. the date it was performed;
- b. the place at which it was performed;
- c. the name, address, telephone number, and job title or capacity of each person who participated in its performance;
- d. the number of sample of \_\_\_\_\_ [*product containing toxic chemicals*];

- e. the wavelength and intensities of electromagnetic radiation used, or temperature used;
- f. the description of any testing equipment used;
- g. the description of the testing procedure;
- h. the reason for such testing;
- i. the result of the test;
- j. the method by which results were computed;
- k. the cost of the test;
- l. the name, business address and business telephone number and job title or capacity or the person who has custody of any records pertaining to such test.

40. Please attach copies of any and all tests described in your response to the previous interrogatory.

### § 62 Quality of Supervision at Work Site

The liability of a general contractor, site manager, or supervising architect frequently depends upon the quality of supervision exercised by that party at the work site in a construction accident case.<sup>91</sup> The following interrogatories broadly inquire into this area.

#### INTERROGATORIES

41. Please describe in detail to the best of your knowledge the nature of the duties of \_\_\_\_\_ [*engineering contractor*] with respect to work at \_\_\_\_\_ [*construction site*].

42. Please describe in detail, to the best of your knowledge, the nature of the duties of \_\_\_\_\_ [*electric contractor*] with respect to work at \_\_\_\_\_ [*construction site*].

43. What is the name of each person, natural or artificial, who in the performance of work at the \_\_\_\_\_ [*construction site*] determined or directed:

- a. what work was to be done;
- b. the details and method of work;
- c. when work was to be done.

44. For each such person, please state:

- a. the person's name and job title;
- b. business address;
- c. the extent to which said person determined or directed performance of the work.

45. Did any person, natural or artificial, have any power to

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<sup>91</sup>See § 12.

direct or control the work performed by any workman employed by you?

46. If so, for each such person state:

- a. name;
- b. job title;
- c. which workman directed or controlled such person;
- d. why that person had such power.

47. Did any other company, person, or firm perform any supervisory or organizational role with respect to measures taken to assure safety of workers at the \_\_\_\_\_ [*construction site*]?

48. If so, please state:

- a. the company, person, or firm;
- b. address;
- c. nature of supervisory or organizational role with respect to worker safety;
- d. whether said company, firm, or person had any responsibility for spraying of \_\_\_\_\_ [*product containing toxic chemicals*].

49. For each person, company, or firm engaged in safety supervisory functions as described in your answers to the previous two interrogatories, please state whether you had entered into any agreement with such person, company, or firm.

50. If so, please:

- a. describe the agreement in detail;
- b. attach copies of any written agreements.

51. Did you attend any meetings during which safety and safety-related matters were discussed?

52. If so; please state:

- a. the time and place of all such meetings;
- b. which of your employees or agents attended such meetings;
- c. the names of all other persons in attendance, and their principals;
- d. what substantive proposals were adopted or implemented relating to safety;
- e. what was discussed relating to the use of \_\_\_\_\_ [*product containing toxic chemicals*];
- f. please attach transcripts of all such meetings.

### § 63 Other Accidents Involving Same or Similar Substances

The existence of other accidents involving the same or simi-

lar substances in a toxic tort case is often relevant on the issue of the defendant's state or mind or knowledge. The following interrogatories inquire into this area.

#### INTERROGATORIES

53. Have there been any other injuries to any persons as a result of the use of \_\_\_\_\_ [*product containing toxic chemicals*] or any other similar products?

54. If so, as to each such accident, state:

- a. the date, time, and location of the accident;
- b. the name and address of each person injured;
- c. the nature and extent of each injury sustained;
- d. the cause of the accident.

55. Were any written reports of any such accidents made?

56. Attach a copy of each such accident report to your answers to these interrogatories.

57. Has a lawsuit ever been filed against you for damages as a result of injury sustained by a person in the use of \_\_\_\_\_ [*product containing toxic chemicals*] or other similar products?

58. If so, for each lawsuit, state:

- a. the name of the suit;
- b. the file number;
- c. the court in which it was filed;
- d. the date of filing;
- e. its present status or disposition.

#### § 64 Results of Defendant's Investigation

The extent of inquiry into the nature and details of a party's investigation varies considerably from jurisdiction to jurisdiction, but plaintiff is usually permitted discovery into investigation directly concerning the plaintiff personally and the location of other witnesses.<sup>92</sup> The following interrogatories make such an inquiry. The request for the production of witness' statements may be objectionable on grounds of work product in many jurisdictions, however.<sup>93</sup>

#### INTERROGATORIES

59. Were investigations made, or reports prepared by you or in your behalf as a result of the accident alleged in the complaint?

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<sup>92</sup>Fed R Civ Proc, Rule 26(b)(1).

<sup>93</sup>See Am. Jur. 2d, Depositions and Discovery §§ 59, 62, 66.

60. If so, for each investigation, state:

- a. the name, address, and job title of each person involving in making or submitting such investigation or report;
- b. the name and address of the person who has present custody of each report.

61. Attach a copy of each such report to your answers to these interrogatories.

62. What is the name and address of:

- a. each person employed by you who was present and witnessed the accident alleged in the complaint;
- b. each other witness to the accident who is known by you.

62. Were any statements obtained from anyone in connection with the accident?

63. If so, for each statement, state:

- a. the name, address, and job title or capacity and place of employment of each person who gave the statement;
- b. the date on which the statement was obtained;
- c. whether the statement was oral, written, or recorded;
- d. the name, address, and occupation of each person who has present control and custody of each statement.

64. Attach a copy of each such statement to your answers to these interrogatories.

### § 65 Identity of Anticipated Trial Witnesses

In addition to lay witnesses, a party may inquire by interrogatory into the identities of the experts that the adverse party expects to call at trial and to obtain disclosure of the expert's qualifications, opinions and conclusions, and the reasons for the opinions and the bases upon which they rest.<sup>94</sup> Further discovery into the facts known and opinions held by experts who are not expected to be called at trial generally requires a special motion for such discovery and is usually conditioned upon a showing of exceptional circumstances.<sup>95</sup> It is also customary in many localities to inquire into the existence of expert's reports. However, the reports of experts, including those expected to be called as trial witnesses, is subject to objections in many jurisdictions on the basis of the

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<sup>94</sup>Fed R Civ Proc, Rule 26(4)(b)(A)(i).

<sup>95</sup>See Fed R Civ Proc, Rule 26(b)(4)(B).

attorney-client privilege and the attorney's work product doctrine.<sup>96</sup>

### INTERROGATORIES

65. For each employee employed by you, who was at the \_\_\_\_\_ [*construction site*] on the date of the injury to \_\_\_\_\_ [*plaintiff*], please state:

- a. employee's name;
- b. address;
- c. telephone number;
- d. starting date of employment with you;
- e. job title;
- f. nature of job duties in detail.

66. For each non-expert witness you expect to call at trial, please state:

- a. his or her name;
- b. address;
- c. business address;
- d. business telephone;
- e. the subject matter about which they are expected to testify.

67. Identify each expert witness you will call at the trial of this action.

68. As to each witness, state:

- a. the field or specialty of the expert;
- b. the expert's qualifications;
- c. the subject matter on which the expert is expected to testify;
- d. the substance of the facts and opinions to which the expert is expected to testify; and
- e. a summary of the grounds for each opinion.

69. What is the name and address of each expert witness you have ever consulted in regard to litigation involving use of \_\_\_\_\_ [*product containing toxic chemicals*]?

70. Please attach any and all expert reports prepared concerning this litigation.

71. Please attach any and all expert reports prepared concerning \_\_\_\_\_ [*product containing toxic chemicals*].

### § 66 Extent of Insurance Coverage

Most jurisdictions now permit a plaintiff to inquire by inter-

<sup>96</sup>See Am. Jur. 2d, Depositions and Discovery §§ 29, 30, 67, 160.

rogatory or otherwise into the extent of the defendant's liability insurance coverage for the occurrence alleged in the complaint. Such disclosure during discovery does not make evidence of insurance coverage admissible at trial, however.<sup>97</sup>

#### INTERROGATORIES

72. At the time of the accident involved herein, were you covered by any policy of liability insurance which may apply to the accident?

73. If so, for each such policy state:

- a. whether it is primary, secondary, reserve or an umbrella policy;
- b. the name, principal place of business and telephone number of the insurer;
- c. the name, address, and telephone number of the named insured;
- d. the policy number;
- e. the effective dates of coverage;
- f. the total limits of coverage;
- g. the name, address, telephone number, and position of the person who has present custody of the policy;
- h. the dates of premiums paid;
- i. the amounts of premiums paid for each such date;
- j. whether such policy provides coverage for "claims made" or for "occurrences."

74. Please attach a copy of each policy to your answers to these interrogatories.

75. Did you make an oral report or otherwise give notice to any insurance company as a result of the accident involved herein?

76. If so, for each other notification, state:

- a. the date given;
- b. the form of notice;
- c. the name, address, telephone number, and occupation of the person who has the notice;
- d. the manner in which the notice was given;
- e. the name and address of the insurance company to which the notice was given;
- f. the name, address, telephone number, and job title or capacity of the insurance company representative to whom notice was given;

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<sup>97</sup>See Fed R Civ Proc, Rule 26(b)(2).

g. the name, address, telephone number, and occupation of each other person present when the notice was given;

h. the substance of the notice.

77. Do you have possession of or access to any writing or other form of record evidencing any of the notices referred to in your answer to the preceding interrogatory?

78. Please attach a copy of each writing to your answers to these interrogatories.

### § 67 Contentions Defendant Expects to Make

The defendant will make a variety of claims during the course of a personal injury or wrongful death case, and the more formal contentions will be set out in the defendant's answer as affirmative defenses. It is always important for the plaintiff to know not only the contentions that the defendant intends to make against the plaintiff but also what claims may be advanced against codefendants or unjoined parties. The following interrogatories seek the disclosure of all such matters.<sup>98</sup> Additional interrogatories as to specific defenses and contentions should be added as appropriate.

#### INTERROGATORIES

79. Do you contend that \_\_\_\_\_ [*plaintiff*] was contributorily negligent?

80. If so, please state in detail in what way \_\_\_\_\_ [*plaintiff*] was contributorily negligent.

81. What facts form the basis of defendant's allegation that \_\_\_\_\_ [*plaintiff's*] negligence was a direct and proximate or contributing cause of his injuries?

82. With respect to each fact, state:

- a. a description of the fact;
- b. the date defendant first became aware of it;
- c. the source from which defendant acquired its knowledge.

83. Is there any written document which supports defendant's allegation of contributory negligence?

84. If so, for each writing state:

- a. a description of the document;
- b. the name and address of the person(s) who wrote it;
- c. the date it was written;
- d. the date defendant first became aware of it;

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<sup>98</sup>See Fed R Civ Proc, Rule 26(b)(1).

e. the name and address of each person who has a copy of it.

85. Do you contend that \_\_\_\_\_ [*plaintiff*] voluntarily assumed the risk of his injury?

86. If so, please state in detail in what way \_\_\_\_\_ [*plaintiff*] voluntarily assumed the risk of his injury.

87. With respect to defendant's contention that plaintiff voluntarily accepted and assumed the risk, state:

a. the risks that plaintiff is alleged to have voluntarily accepted and assumed;

b. the facts upon which defendant relies to show or tend to show that plaintiff voluntarily accepted and/or assumed such risks.

88. Does defendant contend that a person, not a party to this action, acted in such a negligent manner as to cause or contribute to plaintiff's injuries?

89. If so, for each such person, state:

a. the name, or other means of identification and address;

b. the alleged act of such person which caused or contributed to plaintiff's injuries.

90. Do you contend that plaintiff has failed to join necessary or indispensable parties in this litigation?

91. With respect to defendant's contention that plaintiff has failed to join necessary or indispensable parties, state:

a. the necessary or indispensable party of whom plaintiff has failed to include;

b. the facts upon which defendant relies upon to show or tend to show a necessary or indispensable party has not been joined.

## § 68 Financial Resources of Defendant

Generally, discovery into the financial resources of a defendant in a personal injury case is not permitted.<sup>99</sup> Where punitive damages have been claimed by the plaintiff most courts

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<sup>99</sup>See *Hunter Contracting Co. v Sanner Contracting Co.* (1972) 16 Ariz App 239, 492 P2d 735; *Leidholt v District Court of Denver* (1980, Colo) 619 P2d 768; *Progressive Casualty Ins. Co. v Keys* (1975, Miss) 317 So 2d 396.

permit a disclosure of evidence of the defendant's wealth,<sup>1</sup> although many of them impose restrictions on the discovery and use of such evidence.<sup>2</sup>

### INTERROGATORIES

92. State whether the shares of the defendant are traded on any recognized stock exchange and if so, state:

- a. the exchange upon which such shares are traded;
- b. the number of outstanding shares;
- c. the current selling price of the shares.

93. State whether any person, firm, entity, or corporation owns more than fifty percent of the outstanding stock of the defendant, and if so, state:

- a. the name and address of such entity;
- b. if such entity is a corporation, whether its shares are publicly traded, and if so, on what exchange.

94. State the amount of gross income of the defendant for \_\_\_\_\_ [*specific applicable time period*].

95. State the amount of net income of the defendant for \_\_\_\_\_ [*specify applicable time period*].

96. State whether for \_\_\_\_\_ [*specify applicable time period*] the defendant has prepared or had prepared for it, any reports to shareholders; and if so, attach copies of all such reports to these answers.

97. State whether for \_\_\_\_\_ [*specify applicable time period*] the defendant has prepared or had prepared for it any yearly financial statements, or the equivalent by any other title; and if so, attach copies of all such reports to these answers.

### 2. To Chemical Manufacturer

#### § 69 In general

The liability of the painting contractor in the model trial situation would be dependent upon its handling of the sealant be-

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#### [Section 68]

<sup>1</sup>See *Coy v Superior Court of Contra Costa County* (1962) 58 Cal 2d 210, 23 Cal Rptr 393, 373 P2d 457, 9 ALR3d 678; *Carrick v McFadden* (1975) 216 Kan 683, 533 P2d 1249, 91 ALR3d 708.

Pretrial discovery of defendant's worth on issue of damages, 27 A.L.R. 3d 1375 § 4.

<sup>2</sup>Trial Court Restrictions on Evidence of Defendant's Wealth, 30 Am. Jur. Trials 711.

ing sprayed and its knowledge of the hazardous propensities of the product. Its negligence, therefore, would be determined to some extent by the information about the product involved, which basically would come from the manufacturer. The manufacturer's liability principally rests on whether it had given warnings concerning hazardous chemicals contained in the product and adequate instructions for the safe use of the product.<sup>3</sup> The following interrogatories were designed to compel the disclosure of information relevant to those facts.

### § 70 Product Identification

In a product liability case, whether advanced on a negligence or strict liability claim, the precise identification of the product involved is of paramount importance to the plaintiff's discovery.

#### INTERROGATORIES

1. On or about \_\_\_\_\_ [*date of accident*], product known as \_\_\_\_\_ [*product containing toxic chemicals*] was used during construction work at the \_\_\_\_\_ [*construction site*] in \_\_\_\_\_ [*location*]. Do you manufacture and distribute this product?
2. If so, state:
  - a. the address of each plant at which it is manufactured;
  - b. the name and address of each wholesaler, jobber, manufacturer's representative, or other distributor who distributes this product to retailers or users in \_\_\_\_\_ [*state where accident occurred*].
3. Do you manufacture this product under a license from any other person or firm?
4. If so, state:
  - a. the name and address of each licensor;
  - b. the number of the patent, patent application, or copyright claimed by the licensor.
5. Have you applied for a patent on this product?
6. If so, state:
  - a. the date of each application;
  - b. the number of the application or of any patent that has been granted.
7. Do you claim a copyright on the name \_\_\_\_\_ [*product containing toxic chemicals*]?
8. If so, state:

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<sup>3</sup>For an illustration of safety information put out by manufacturers of chemical products, see § 8.

- a. each governmental agency (both state and federal) or official, with whom the name has been registered;
- b. the date of each such registration.

9. What are the ingredients that are compounded to produce \_\_\_\_\_ [*product containing toxic chemicals*]?

10. Are any chlorinated hydrocarbons used in the manufacture of this product?

11. If so, state:

- a. the chemical formula or each chlorinated hydrocarbon used;
- b. the common name of each such ingredient.

12. What is the specific gravity of each chlorinated hydrocarbon compound used in the manufacture of \_\_\_\_\_ [*product containing toxic chemicals*]?

### § 71 Negligent Product Testing Procedures

The manufacturer's negligence in a product liability case advanced on that theory may be proven by evidence of shoddy workmanship, inadequate materials selection, faulty construction or assembly, and by showing negligence in the testing of a product. The latter theory is usually the most appropriate in cases involving hazardous chemicals and toxic substances.

#### INTERROGATORIES

13. Did you make any tests to determine whether the fumes from any substance used in the preparation of \_\_\_\_\_ [*product containing toxic chemicals*] were harmful when inhaled?

14. If so, state:

- a. the name and address of the person who was in charge of such testing;
- b. a description of the method used to test the product;
- c. whether the tests were designed to simulate the actual conditions under which the product would be used.

15. Did you employ an industrial toxicologist, or other consultant, to determine whether any ingredient contained in \_\_\_\_\_ [*product containing toxic chemicals*] would constitute a hazard to persons using it?

16. If so, state:

- a. the name and address of each person, or firm, so consulted;
- b. whether any change was made in the original formula for \_\_\_\_\_ [*product containing toxic chemicals*] as a result of any testing or consultation and, if so, state:

- (1) a description of the changes that were made;
- (2) the reason for making each change.

17. Has this product, at any time, been subjected to tests or studies conducted by a state or federal governmental agency or department?

18. If so, state for each:

- a. the name of the agency or department;
- b. the dates of each test or study commenced and concluded;
- c. the purpose of the study or tests;
- d. the description of the test or study procedure;
- e. the results obtained or conclusions reached;
- f. the method by which the results or conclusions were computed or determined;
- g. the source of authority (statutory requirement, agency policy, etc.) for the performance of the test study.

## § 72 Labeling; Warning

In both negligence and strict liability claims against product manufacturers, the existence or nonexistence of proper warnings of hazards with respect to the use of a product may be the critical factor in the determination of the defendant's liability.<sup>4</sup>

### INTERROGATORIES

19. Do you belong to an organization that has as one of its purposes the use of uniform labels to warn of hazards inherent in chemicals or products?

20. If so, state:

- a. the name and address of each such organization;
- b. whether any such organization has adopted, or recommended, a warning label for products that contain any ingredient used in the manufacture of \_\_\_\_\_ [*product containing toxic chemicals*] and if so;
  - (1) the ingredient that the warning concerned
  - (2) the wording of the warning recommended;
  - (3) a description of the hazard that is inherent in the use of the product.

21. Did any organization of which you are a member adopt any additional warning labels to be used when dangerous chemicals are applied by the use of pressurized containers?

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<sup>4</sup>See § 15.

22. If so, state:

- a. the name and address of each such organization;
- b. the exact working of the recommended warning label.

#### Cases

Under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the term "label" includes the written material on the actual container, as well as written, printed, or graphic material accompanying the container, to which reference is made. Federal Insecticide, Fungicide, and Rodenticide Act, § 24, as amended, 7 U.S.C.A. § 136v. *Ackerman v. American Cyanamid Co.*, 586 N.W.2d 208 (Iowa 1998), reh'g denied, (Dec. 8, 1998).

### § 73 Prior Accidents Involving Toxic Substance

Discovery into prior accidents in the claim against the manufacturer of a product containing hazardous chemicals or toxic substances may be relevant with respect to the defendant's knowledge of the substance's toxicity, flammability or in regard to other dangerous propensities.<sup>5</sup>

#### INTERROGATORIES

23. Did you receive notice that any other person has suffered ill effects following the use of \_\_\_\_\_ [*product containing toxic chemicals*]?

24. If so, state:

- a. the name and address of each such person;
- b. the date of each such notice;
- c. a description of the injuries claimed by such person,
- d. whether you have compromised, or settled any claims for injuries resulting from the use of \_\_\_\_\_ [*product containing toxic chemicals*].

25. Have you been named as a defendant in any lawsuit wherein damages were claimed for injuries resulting from the use of \_\_\_\_\_ [*product containing toxic chemicals*]?

26. If so, state:

- a. the name and address of each plaintiff who has instituted such an action;
- b. the name and address of each person, firm, or entity that has been named as codefendant in such action;
- c. the name of the court in which each action was filed;
- d. the judgment entered in each action that has been tried;
- e. the terms of each settlement reached pending the trial of any case;

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<sup>5</sup>See § 63.

f. the date set for the trial of an action still pending.

#### Cases

Evidence of safety history of product is admissible where evidence pertains to use of same type of appliance or equipment, and is based on use of product under substantially similar conditions. Purpose of product safety history is to show dangerous character of product and defendant's knowledge thereof or to show that product was not dangerous or that defendant had no prior knowledge of danger. *Emerson Elec. Co. v Garcia* (1993, Fla App D3) 623 So 2d 523, 18 FLW D 1440.

### § 74 Warranties

In the model trial case, plaintiff's complaint contained a count alleging a breach of implied warranty on the part of the chemical manufacturer,<sup>6</sup> and the following interrogatories inquire into that area.

#### INTERROGATORIES

27. Has the defendant, or anyone in behalf of the defendant, ever given a warranty or made an undertaking concerning the use, toxicity, or safety of \_\_\_\_\_ [*product containing toxic chemicals*]?

28. If so, for each such warranty or undertaking, state:

- a. the date it was made;
- b. the name, address, telephone number, and job title or capacity of the person who authorized it;
- c. its substance and wording;
- d. whether it was false in any degree and why;
- e. if false, the date it was withdrawn and the reason thereof.

### § 75 Disclosure of Defendant's Expert Witnesses

The following interrogatories seek to compel the disclosure of the defendant's expert witnesses at trial.<sup>7</sup>

#### INTERROGATORIES

29. Identify each expert witness you will call at the trial of this action.

30. As to each witness, state:

- a. the field or specialty of the expert;
- b. the expert's qualifications;

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<sup>6</sup>See § 48.

<sup>7</sup>See § 65.

- c. the subject matter on which the expert is expected to testify;
- d. the substance of the facts and opinions to which the expert is expected to testify;
- e. a summary of the grounds for each opinion.

## VIII. TRIAL PREPARATION

### § 76 In general

To prepare for trial the plaintiff's attorney should develop a particular theory of recovery for the case and keep it in mind at all times.<sup>8</sup> Counsel must know what facts need to be proved at trial and what evidence is available to establish them. In order to properly present the case counsel should first outline those provable facts that support each element of the prima facie case.<sup>9</sup>

In mapping the trial,<sup>10</sup> counsel needs to make some judgments about the order of the witnesses that will be called to testify.<sup>11</sup> Four major factors should be kept in mind when setting the order of the witnesses. The first is the character of the plaintiff,<sup>12</sup> the second is the theme of the trial,<sup>13</sup> the third is the relative strength of the witnesses,<sup>14</sup> and the fourth is the coherence of the entire case.<sup>15</sup>

### § 77 Developing a theme for the case

One of the first steps to effectively mapping the case for trial is to develop a short, effective, and saleable theme for the trial.<sup>16</sup> Counsel should plan to organize much of the case around a particular theme or fact pattern of the case. Choosing the theme is essentially a matter of looking at the evidence and picking out the facet of the case that is most likely to impress

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<sup>8</sup>See § 78.

<sup>9</sup>See §§ 82, 83.

<sup>10</sup>Mapping the Trial—Order of Proof, 5 Am. Jur. Trials 505.

<sup>11</sup>McCown, "Trial Strategy/Case Management" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 22.00–22.22 (Shephard's/McGraw Hill 1984).

<sup>12</sup>See § 79.

<sup>13</sup>See § 77.

<sup>14</sup>See § 81.

<sup>15</sup>See § 82.

<sup>16</sup>See Kanner, *Trying the Toxic Tort Case*, 23 Trial 32, 33 (Oct 1987).

the jury. In the model trial factual situation,<sup>17</sup> the misconduct of employees of the painting contractor were of a particularly aggravated nature and that has become the central theme of the plaintiff's case from the beginning to the conclusion of the evidence. Thus, the first witnesses were those who were in the area when the plaintiff was exposed and who could describe the incident in the most graphic detail. Those witnesses helped develop the theme early in the case and enabled counsel to present other evidence more effectively. For example, when the expert testified about the effect of what was termed "the exposure," the fact of that exposure resonated in the jury's mind.

There are problems, however, with selecting one theme for use in a case involving the negligence of several types of defendants. One problem is that a sole theme may be effective against only one defendant. In some cases, however, the theme can be made to apply against several different types of defendants, perhaps as a minor theme or variation for the others. In the model trial case herein, of course, the painting contractor's negligent spraying was the main theme, but a variation of it also was made to apply to the site manager on the theory that the latter should have more properly supervised the conduct of the former.

### § 78 Mapping the trial

The best way to prepare the case during the early stages is to map out the evidence according to the theories that the facts support. The plaintiff's attorney should make a checklist of the prima facie case for each theory of recovery that counsel will pursue.<sup>18</sup> Next to each element should be listed every piece of evidence counsel intends to offer to support or prove that point, along with the names of each witness who can testify to the facts. Counsel should also list all items of physical or documentary evidence that can be admitted to corroborate witness testimony or independently prove additional facts. After the list has been developed, it should be reviewed critically to determine whether the case has any weaknesses. Where the proof seems weak, the attorney should look for more evidence to support the case. The attorney should also identify and eliminate useless or repetitive information. Where several wit-

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<sup>17</sup>See § 3.

<sup>18</sup>Rudlin, "Burdens of Proof" in G. Nothstein, ed., *Toxic Torts: Litigation of Hazardous Substance Cases* §§ 16.01-16.19 (Shephard's/McGraw Hill 1984).

nesses testify to the same facts, juries may get bored by such repetitive testimony. Only those witnesses who have been assessed through investigation and discovery to have superior credibility, intelligence, memory and recall, and who were in the best position to observe what they can testify to, will be the most effective witnesses, and only such witnesses should be called at the trial.

After developing an outline of proof supporting recovery, counsel should make a negative proof outline to anticipate what evidence might be offered in defense by opposing counsel or what weaknesses on cross-examination might be developed. Plaintiff's counsel should take a hard look at favorable witnesses to see what they could say that would be harmful to the case. The attorney should also examine those witnesses defense counsel will be expected to call and review the substance of their testimony. After this outline has been made, plaintiff's counsel should prepare a third outline indicating what witnesses and what evidence might be available to offer in rebuttal to the evidence expected from the defense.

From these outlines the attorney should select the best witnesses available to call during the plaintiff's case-in-chief and prepare a question checklist for each. The witness checklist should cover all the facts which the witness can testify to. With these outlines and checklists in hand, the attorney should be able to effectively map the order of trial.

### **§ 79 Assessing and using plaintiff as a lead witness**

Often the effect that the plaintiff has on the jury can mean the difference between winning and losing the case. Since the first witness frequently makes the greatest impression on the jury, counsel should call the plaintiff as the leadoff witness if the plaintiff is a particularly strong witness. Doing so also has other advantages. If the plaintiff's appearance dramatically demonstrates the debilitating effects of the illness or condition suffered as a result of the toxic exposure, an early appearance by the plaintiff may help to develop a favorable rapport between the plaintiff and the jury, particularly where, because of the condition, the plaintiff will be unable to sit at the counsel table throughout the trial. As the jurors listens to other evidence, they will be able to visualize the plaintiff in the testimony if they do not have to construct him out of thin air. Further, if the plaintiff can remember and articulate the facts of the exposure clearly on the stand, presenting the plaintiff as

the first witness basically allows counsel the opportunity of repeating the opening argument, this time from the witness stand. There is no one who is in a better position than the plaintiff to set forth the facts of the exposure, describe the course of medical treatment, and relate the suffering and loss incurred as a result of the experience.

Of course there are also drawbacks to using the plaintiff as the lead witness, however. If the plaintiff's testimony is not consistent with other evidence presented during the plaintiff's case-in-chief, or with evidence that counsel reasonably expects to be developed by the defense on cross-examination, discrepancies will be created that may severely damage the plaintiff's personal credibility or the integrity of the plaintiff's prima facie case. If the damage is great, the attorney may be forced to recall the plaintiff to explain the inconsistencies, and this may have an unfavorable effect. Where this type of situation can be expected to be developed, it may be better strategy to save the plaintiff for the last witness, where his or her testimony can deal with such problems in a more straightforward manner.

If the plaintiff is not a particularly strong witness and does not project a favorable demeanor, another reason exists for calling the plaintiff at the end of the case rather than at the beginning. Where the facts of the plaintiff's exposure can be adequately established by other witnesses, the strength of the plaintiff's case will not rest on the strength of the plaintiff as a witness. In other words, if by the time the plaintiff testifies the jury will have accepted the principal facts of the exposure, any limitations in the plaintiff's demeanor or credibility as a witness may not weigh as heavily against him or her as they would if the plaintiff had been called earlier in the case.

If the plaintiff died as a result of the toxic exposure before the start of trial and a videotape deposition was taken to preserve the plaintiff's testimony, the tape should be saved for the end of the plaintiff's case in chief. Doing so may create a dramatic impression of the plaintiff that may remain in the jurors' minds during the presentation of the defendant's case that immediately follows. Some judgment is called for, however. If the defense conducted a particularly good cross-examination at the deposition and some weaknesses were developed, it will be better to show the tape earlier in the case and follow it with witnesses who may be able to rehabilitate the case on the points where it has been weakened.

**§ 80 Assessing and using defendant as an adverse witness**

Some lawyers feel that it is best to put the defendant on the stand first in order to prove material facts of the plaintiff's prima facie case from a witness known to be hostile. One advantage to this is that counsel is allowed to put leading questions to an adverse witness during the direct examination,<sup>19</sup> and counsel who advocate this approach feel that the jury is more inclined to accept the facts of the plaintiff's case when testified to by witnesses identified with the other side.

Where the defendant is a corporation, which is usually the case in toxic exposure litigation, the plaintiff may call an officer, agent, or employee of the defendant as an adverse witness. The ideal adverse witness in this regard is one who played a major role in the exposure and whose testimony will be consistent with that to be developed through the plaintiff's favorable witnesses. Adverse witnesses should not be called unnecessarily, however, as they tend to be difficult to handle on the stand and present the defense with an opportunity to develop weaknesses in the plaintiff's case. If calling an adverse witness is essential to the plaintiff's case, however, and counsel is unsure as to how effectively the witness can be made to testify, then such a witness should not be called as the first or early witness in the plaintiff's case. Such a witness should be called somewhere in the middle of the plaintiff's case, rather than at the beginning or at the end, where the impression the witness creates may last long on the jury.

**§ 81 Assessing relative strength of the witnesses**

Another major factor in determining the witness order is the relative strength of all the witnesses, including lay as well as expert witnesses.<sup>20</sup> Primarily, this is most important in the sense of first and last impressions. A juror's attention will be keenest at the beginning of the testimony. It is important that a witness be chosen for the leadoff position who not only makes a strong, good impression, but who also has significant and substantial information to give. The jurors should be confronted

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<sup>19</sup>Fed R Evid, Rule 611(c).

<sup>20</sup>See Kanner, Trying the Toxic Tort Case, 23 Trial 32 (Oct 1987), in which the author recommends that counsel in a toxic tort case should rely more on lay witnesses than experts because jurors relate better to them and they tend to be more inherently credible.

by the brunt of plaintiff's case at the beginning, when they are at their most receptive. Therefore, if there is a witness who can give a strong summery of the factual case against a given defendant, that witness should be selected to lead the testimony of the others.

The last witness may be the one that resonates the longest, and the final witness should be one that presents a strong and sympathetic testimony on the issue of damages. This has two main effects. It will enable the jury to listen to defendant's case with an ear sympathetic to the plaintiff. Also, it will be in the jury's mind when it comes to the arguments regarding damages. The best person for this position is usually the plaintiff's (or the decedent's) spouse.

## § 82 Continuity of the case

The final factor to consider in mapping the trial is continuity. The trial should unfold to the jury as would a story that is related clearly and succinctly. The testimony should build upon itself to present to the jury a logical sequence of action and reaction, cause and effect.

Generally, counsel should present the testimony in the order most appreciated by the jury. Thus, the first thing a jury wants to know is what happened, and this information comes from the "exposure" witnesses. The second thing the jury wants to know is why it happened, and this information comes from the "liability" witnesses. The third will be what the effects were, and this is best related by the medical causation witnesses and the witnesses on damages.

Naturally, there will be overlaps in the testimony since some witnesses can testify to more than one issue. Fact witnesses who know the plaintiff can be valuable witnesses on the issue of damages as well as to facts that tend to prove liability. Liability witnesses, who may have seen the exposure may also be good exposure witnesses. However, as a general rule, the calling of a particular witness should be scheduled for that point in the trial when the main thrust of the witness' testimony corresponds with the element of proof being developed during that stage.

In planning the development of the plaintiff's case at trial, counsel should also schedule the appearance of certain witnesses so that they may function as bridges that cover the gaps between major parts of the case-in-chief. A witness as to what happened, who is also usable as a liability witness, can be used

as a bridge between the exposure and liability. A pharmacological witness may serve as a bridge between liability and causation. Ideally, the testimony makes sense in two different areas: the middle of the liability section to establish that the chemical company should have known of the hazardous effects of the chemical, and as a bridge between the treating doctor and the medical specialist.

### § 83 Checklist for Mapping the Trial

The following checklist may be helpful for counsel to review in analyzing a toxic exposure case and preparing it for trial. It is designed to show the desired continuity from one group of witnesses to another during the course of the trial. It may be noted that no witness was used to bridge the gap between proof of causation and damages. The difference in the subject matter relationship of the two topics is usually too great to handle the transition smoothly. However, in the model trial case, where plaintiff died shortly before trial, the gap was bridged through the testimony of the plaintiff decedent's children who testified on the issue of damages.

- Plaintiff or best fact witness
  - Other fact witness
  - Last fact witness, bridge to liability
- Liability witness
  - Construction site personnel
  - Construction site person who handled chemicals to chemical liability
  - Pharmacologist or knowledge witness
  - Chemical company personnel
- Causation witnesses
  - Treating physician
  - Pharmacologist
  - Other expert
- Damages
  - Children
  - Employer or wage loss witness
  - Economist
  - Psychologist
  - Spouse

## IX. TRIAL

### A. JURY SELECTION

#### § 84 In general

The best source of justice is the American jury system, and it is the only way to insure a fair and impartial trial. The jurors come from a list of registered voters. They are from all walks of life, and it is the lawyer's responsibility to select people whom he or she believes will be fair to the client's cause. We all form impressions of persons based upon their dress, poise, conduct, speech, and mannerisms. A jury does the same thing, and it tends to "pick a side" early in the case. It is important, therefore, that neither counsel, the client nor the client's witnesses present a negative image to a jury panel. A good trial lawyer capitalizes on the American jury's instinct to "take sides" by his or her mannerisms, dress, and presentation.

The sections in this division discuss the techniques of trying a construction accident case involving a worker's exposure to a toxic substance within the context of the model trial case but only insofar as the case applied against the painting contractor. For the purpose of the following discussion, the reader should assume that the owner of the premises, the general contractor (site manager) and the chemical manufacturer have been dismissed from the action.

#### § 85 Selecting a jury

The jury is a group of people assembled to do justice in a particular case.<sup>21</sup> Jurors are people who are called to render judgments about a conflict concerning people they do not know in a setting away from their families and their businesses. Their lives have been disrupted. If they do not become involved in the case before them, the results are likely to be very inconsistent; they may be inclined to vote for the party whose lawyer has irritated them the least.

When selecting a jury counsel should attempt to impress the jurors with the more interesting aspects of the case by incorporating some of the facts of the case into questions put to the prospective jurors during voir dire. This tends to increase the jurors' curiosity about the case, which makes them more willing to reserve a judgment on the case until they hear more of the facts and circumstances. With a basis for future delibera-

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<sup>21</sup>Selecting the Jury—Plaintiff's View, 5 Am. Jur. Trials 143.

tions following the evidence, the jurors are more likely to keep an open mind during the trial, which is one of the principal functions of jury selection.

One of the first questions counsel should ask when selecting a jury panel member is, "What kind of a person is the juror?" People tend to act in certain ways according to their character and background. When representing a client in a personal injury case, people who are engaged in public contact, such as salespeople, people who seem naturally gregarious, and persons of certain ethnic backgrounds, such as southern Italians, tend to have natural empathy for a plaintiff. Artists, social workers, and people of poorer classes also seem to have a special empathy for injured persons and tend to vote according to their feelings in reaching a verdict in a personal injury case. People who appear to have penurious attitudes or who are engaged in conservative occupations, such as bankers, generally will not identify with a plaintiff.

### § 86 Technique of conducting voir dire

Counsel's ability to conduct an individual voir dire of prospective jurors may be restricted by court rules or procedural regulations of the jurisdiction. In some areas, counsel is allowed relatively open access to the prospective jurors; in other areas the right is limited, and in some courts counsel must submit written questions which the trial judge will put to the panel members individually or collectively. Where the opportunity to examine jurors directly during voir dire exists, counsel should establish verbal contact with each potential juror. Asking each juror a question helps to establish rapport between the attorney and the panel member. Individual questioning should be done in a friendly manner, as a harsh examination tends to prevent or diminish the type of rapport the attorney wants to develop with the jury.

The primary purpose of voir dire is to select a fair jury panel. Voir dire questioning, however, is not an effective way of revealing all the possible prejudices of the jurors. At best, only the most blatant prejudices are revealed by way of a voir dire examination. What the attorney should strive to do in voir dire is to try to get a sense of what each juror thinks. The questioning should be directed less towards revealing prejudices than disclosing attitudes. Generally, however, the attorney will have to work more on instinct than on responses to individual questioning to determine which jurors are the most acceptable for the panel.

## B. OPENING STATEMENT

### § 87 In general

The opening statement is often crucial to the success of the trial.<sup>22</sup> The opening comes at the stage of the trial when the jurors' minds are fresh and uncluttered. Thus, the opening can be very effective in giving the jury a favorable impression. It goes without saying that a strong and effective opening statement is essential.

The groundwork of the opening statement must be laid throughout trial preparation. The attorney must know the facts of the case thoroughly in order to be able to relate those facts accurately during the opening statement. In effect, counsel makes a pact with the jury, whether spoken or tacit, that the evidence that is discussed during the opening statement will be introduced during the trial as represented. The jury will remember evidence what was promised during the opening and the failure to present that evidence may break the bond that the lawyer has forged with the jury. For the sake of credibility, the attorney should only mention those points on opening that will come out at trial.

The opening statement should be brief, clear, and well organized, with a logical connection between each of the points to be made during the presentation. Counsel should not ramble nor jump about from one topic to another. Delivery of a well-organized and thoughtful opening statement will picture the attorney as a reasonable, competent professional.

The style of the opening statement is also important, but it will probably vary from attorney to attorney, according to the type of personality involved. Generally, it is best to maintain a conversational tone for most of the opening statement and save the more volatile statements for final argument. How the attorney presents the opening statement may determine how the jury judges the attorney. The attorney should present a trustworthy, calm, competent, and professional demeanor.

### § 88 Plaintiff's Opening—Illustrative Paragraphs

The plaintiff's attorney should use the opening statement as an opportunity to introduce the theme of the case<sup>23</sup> to the jury. Generally, in presenting the opening statement, counsel should

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<sup>22</sup>Opening Statements—Plaintiff's View, 5 Am. Jur. Trials 285.

<sup>23</sup>See § 77.

sketch clearly the outline of the picture that he or she wants the jury to fill in when it hears the evidence. It is not counsel's function at this time to draw in the complete picture for the jury.

Counsel should begin the opening statement with a factual statement of the most salient points of the theme. As an example, in the model trial case there was evidence that the toxic exposure to the plaintiff was particularly severe. Thus, the introduction of the opening statement immediately should set the scene of the accident and relate the main factual circumstances of liability.

On \_\_\_\_\_ [date], \_\_\_\_\_ [plaintiff] was working at \_\_\_\_\_ [construction site], where he was a carpentry foreman. He was working in an area they called "the well," about twenty feet in the ground and about eighty feet around, when certain employees of \_\_\_\_\_ [painting contractor] began to spray a product by the name of \_\_\_\_\_ [brand name of sealant]. They had sprayed before, of course, but this time it was different. This time the fumes were so bad that you will hear them described as a fog. \_\_\_\_\_ [Plaintiff], given only a surgical mask for protection, tried to leave the well. He made it to the ladder before blacking out. When he was seen two hours later, he was unconscious, blue, and gasping for air. That, ladies and gentlemen, is why we are here. My name is \_\_\_\_\_ [counsel's name] and the gentleman seated at the counsel table is the plaintiff.

After the introduction, the attorney should briefly sketch the factual basis for this action. The discussion should not be too exhaustive nor attempt to recite passages of testimony verbatim. The idea behind the opening statement is to prepare the jury to receive later information, not to give them the evidence directly. Counsel should stress the highlights of the case and explain how the highlights relate to the issues that have to be proven.

In this case we will prove that \_\_\_\_\_ [painting contractor] knew of the presence of the carpenters in the well. Despite the presence of those workers, who were unprotected against the harmful fumes that it was known such spraying would cause, \_\_\_\_\_ [painting contractor], applied the sealant. The \_\_\_\_\_ [painting contractor], knew this stuff was harmful—his people were given masks, respirators, protective clothes, the whole shot—and they sprayed knowing that there were others there who were not wearing protective equipment. And because they sprayed \_\_\_\_\_ [plaintiff] was overcome by fumes.

The attorney should also take the initiative and raise the weaker points of the case during the opening statement. Generally, the jury should not hear of them for the first time from defense counsel. They should be discussed in a positive way, however. Counsel should inform the jurors of how the plaintiff's case will deal with the admitted weaknesses. For example, there is nearly always a serious proximate cause issue in a toxic exposure case. Plaintiff's counsel should inform them of that before defense counsel does, and they should be informed that plaintiff will deal with the issue in a positive way.

Now, I told you that \_\_\_\_\_ [*plaintiff*] suffers from \_\_\_\_\_ [*condition or illness caused by the toxic exposure*].

The attorney for the defendant company will tell you that no one knows what causes that condition and that we won't be able to prove it was caused by the exposure to \_\_\_\_\_ [*hazardous chemical*]. Well, you'll get to hear a lot of medical and scientific evidence on that point from the expert witnesses, and one thing will become clear: this chemical causes \_\_\_\_\_ [*illness or condition*].

Counsel should also briefly discuss the defendant's case by stating the basic contentions of the defense claims. Although it may seem dangerous to ask the jury to pay attention to the opponent's case, it has some advantages. The jury will pay attention to opponent's case without being told. By telling the jury to do so, the jury will tend to see counsel as a fair person, and will tend to project a feeling of confidence in the client and in the client's case.

Of course, they'll have more to say than what I have just told you. I expect \_\_\_\_\_ [*defense counsel*] can fill you in a bit better on what they'll say. But listen to what they say. Listen to which facts they admit and the facts they deny, and examine the facts that we both present, you'll have no difficulty coming to a proper conclusion for this matter.

The final aspect of the opening statement is to prepare the jury for the damages portion of the case. In discussing the client's injuries and damages, understatement is the preferred approach. In an injury case, the client's suffering should be presented in sympathetic terms and the client's efforts to rehabilitate himself emphasized.

### § 89 — Checklist

Counsel may find the following checklist helpful in preparing the opening statement for the plaintiff in a toxic exposure case.

Give a good introduction

- State the theme of the case
- Make a pact with jury
- Discuss the facts of the case
- Relate the facts to the legal positions
- Refer to the witnesses and indicate what they will say
- Discuss the documentary evidence
- Refer to any anticipated negative evidence in a positive way
- Discuss opponents' evidence
- Discuss admissions, denials, etc.
- Underplay, but discuss damages

### C. PRESENTING PLAINTIFF'S CASE

#### § 90 In general

The order in which the witnesses should testify has already been discussed.<sup>24</sup> Counsel, however, should not adhere to a rigid schedule. Within the general framework decided on, there should be considerable leeway. Thus, once a general plan for the trial has been mapped,<sup>25</sup> and the order of witnesses selected, the plaintiff's attorney should concentrate on how best to bring out the information which needs to be presented, even if that means that changes in the overall plan will need to be made as he or she goes along.<sup>26</sup>

#### Cases

Judgment on jury verdict in favor of manufacturer of DuPont Imron paint was reversed on plaintiff's strict-liability product-defect claim, and summary judgment for defendant was reversed on plaintiff's strict-liability failure-to-warn claim. Plaintiff, employee of truck manufacturer, worked adjacent to area in which truck chassis were painted. Defendant's paint was used, containing isocyanates, which were ingredients in certain activators in paint that shortened its drying time. As result of exposure to vapors from paint, plaintiff suffered permanent obstructive lung disease. Expert testimony established that isocyanates were extremely toxic substances and inherently dangerous to human health. Isocyanates irritated lungs, and body's immune system attacked them, causing lung damage. Expert testimony also noted that isocyanates were most common cause of occupational asthma in this country. That evidence established submissible case that DuPont's paint, containing isocyanates,

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<sup>24</sup>See § 82.

<sup>25</sup>See § 78.

<sup>26</sup>Presenting Plaintiff's Case, 5 Am. Jur. Trials 611.

was unreasonably dangerous and therefore defective. With respect to plaintiff's failure-to-warn claim, trial court erred in excluding evidence of DuPont's labels for its activators, placed in use after plaintiff's exposure. Those labels stated that products could produce permanent lung injury. They were relevant to and probative of whether activators were unreasonably dangerous, and thus defectively designed, and whether warnings were adequate at time of plaintiff's injury. *Stinson v E. I. DuPont de Nemours & Co.* (1995, Mo App) 904 SW2d 428, CCH Prod Liab Rep ¶ 14273.

### § 91 Plaintiff's demeanor as a witness

Counsel should bear in mind that the plaintiff will be watched closely by the jury both to determine credibility and as to whether or not the plaintiff is a person worthy of being awarded substantial damages. Thus the plaintiff's counsel should direct much of the testimony to create for the jury a sympathetic portrait of plaintiff.

The ideal image of the plaintiff prior to a toxic exposure is one of a hardworking, healthy person, in contrast to the person before them who may actually be dying as a result of the effects of the exposure. It is important that the jury see the pre-exposure plaintiff as an honest, hardworking family man, if applicable, rather than a malingerer or sluggard. The jury should be presented a picture of the plaintiff that will compel it to ask, "How could anyone have done that to this person?"

It is usually not difficult to paint an ideal picture of the injured post-exposure plaintiff. Counsel should be able to present the picture of a person racked with physical pain attempting to cope with the disease. The view can be one of defiance, of a person who is fighting the disease and refuses to give up, or it may be one of defiant, but grim, resignation to the inevitable. Where the plaintiff has died as a result of the effects of the disease caused by the exposure, this aspect can be particularly effective where the plaintiff's testimony can be presented by a videotaped pretrial deposition. The effect of the absence of the plaintiff will become overwhelming immediately following the showing of the tape, particularly if it pictures a person who has come to grips with the inevitability of death or is attempting to do so.

Where the plaintiff has died before trial, the presentation of the surviving family members in a favorable light is important. The attorney should show how the lives of the survivors have been deeply effected. They should be shown to be struggling to rearrange their lives in an effective way. Showing how a family that has suffered a devastating loss is trying to rebuild its life

together is far more effective than merely showing that a family is mired in grief.

### § 92 Preparing the trial witnesses

Counsel should not permit any witness to testify at trial who has not been adequately prepared for his or her appearance on the witness stand. Since generally several years will have passed between the plaintiff's toxic exposure and the time for trial, most witnesses will have forgotten many of the details of the case, making it imperative that counsel make a strong effort to refresh their recollection during trial preparation.

The pretrial preparation of a witness also gives the witness an opportunity to become familiar with counsel's style of questioning at trial. Putting sample questions to the witness after an interview and informing the witness how his or her testimony will fit in with the theme of the trial can accomplish this objective very well. This type of preparation will inform counsel whether the witness can respond to questions in a confident and forthright manner. It also tells counsel precisely the answer that the witness will give to the questions at trial. The procedure followed should not be such as to produce testimony in court that sounds rehearsed or manufactured for the occasion, however. The goal is to have a relaxed, confident, and prepared witness at trial. This can often be accomplished by determining the witness' familiarity with court testimony and explaining to the witness the procedure he or she will undergo while testifying.

In preparing the plaintiff's witnesses, counsel should take advantage of the trial preparation materials available, such as witness statements and deposition transcripts. This material should be gone over thoroughly with the witness with respect to how it fits in with the theme of the case. The witness should be aware of the importance of the testimony and how that testimony will relate to evidence expected from other witnesses. If the witness understands the expected role, the testimony from that witness is likely to be more focused on important material facts. It is important that the witness understand the overall framework of the case during the trial preparation because the defense will probably request an order excluding the witnesses from being in the courtroom except while testifying.

During the trial preparation conference with a witness, counsel should also determine if the witness possesses any ad-

ditional information that may have been overlooked during investigation or discovery or which the witness acquired since the last meeting with counsel. With knowledge of the entire case in mind, information the witness previously had rejected as inconsequential may take on new meaning.

In the process of preparing each witness, counsel should prepare a checklist or outline of the witness' testimony to work with during trial.

### § 93 Presenting plaintiff's witnesses

Counsel's first step in presenting the testimony of a witness for the plaintiff is to introduce the witness to the jury. The first questions should deal with the witness' identity, place of residence, nature of his or her occupation, and other general information. These questions have two very important functions. First, they allow the jury to see the witness as a person, which is essential for developing the individual's credibility as a witness. Second, preliminary questions help the witness to overcome nervousness, build confidence, and adjust to the courtroom situation.

Most courts allow counsel to take the witness through the preliminary matters by asking leading questions.<sup>27</sup> Where the witness is capable of relating such matters clearly and concisely, however, leading questions should be dispensed with and the information should come directly from the witness in order to reinforce credibility.

The second step in the development of the witness' testimony is to establish the witness' connection with the case, either through a relationship with the plaintiff or to the events which resulted in the plaintiff's injury. This gives the testimony a foundation and allows the jury to understand the relevance of the testimony to the case. The attorney should allow the witness to narrate the testimony in his or her own words with a minimum of interference. Should the witness begin to ramble during the testimony, however, counsel should switch tactics and ask more limited questions.

In developing the witness' testimony it is generally better to present the facts and circumstances in chronological order. With some witnesses, however, the evidence may be particularly strong on one or more of the theories of recovery. In that case, counsel should consider developing that evidence either

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<sup>27</sup>See Am. Jur. 2d, Witnesses §§ 429, 430.

at the beginning or the end of the witness' testimony, where it is more likely to be remembered by the jury.

The attorney should also keep alert for other uses of the testimony of a witness. For example, although family members of the victim will often testify regarding damages, their testimony may also help on the issue of causation. Thus, testimony of the family establishing that the victim of a toxic exposure was in good health prior to the incident may help create an inference of causation when that testimony is contrasted to the evidence of debilitation and illness of the victim following the exposure.

### § 94 Presenting expert testimony

A toxic exposure case almost always succeeds or fails on the strength or weakness of the expert witness testimony.<sup>28</sup> It is therefore vital that the attorney do a thorough and effective job of presenting the expert testimony.

In presenting expert testimony, the attorney must first qualify the expert.<sup>29</sup> Occasionally the opposing counsel may offer to stipulate to the expert's qualifications. Although this may tempt counsel, since it will mean that he or she will not have to go through what may seem like a tedious procedure, counsel should insist on presenting the expert's credentials. It is important that the jury knows that the person telling them about causation is eminently qualified to give that opinion. The jury will judge the expert not only on the weight of his or her testimony, but also on the strength of the expert's qualifications.

#### Cases

District Court did not abuse its discretion in excluding expert scientific testimony, offered by electrician as evidence that his cancer resulted from exposure to polychlorinated biphenyls (PCBs), based on studies indicating that infant mice developed cancer after receiving massive doses of PCBs injected directly into their peritoneums or stomachs;

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<sup>28</sup>Selecting and Preparing Expert Witnesses, 2 Am. Jur. Trials 585.

Admissibility of opinion evidence as to cause of death, disease, or injury, 66 A.L.R. 2d 1082.

<sup>29</sup>Qualification of Medical Expert Witness, 33 Am. Jur. Proof of Facts 2d 179; Qualification of Toxicologist, 12 Am. Jur. Proof of Facts 629.

Qualifications of chemist or chemical engineer to testify as to effect of poison upon human body, 70 A.L.R. 2d 1029.

Siegel, The Chemist as a Technical Expert, 9 Lawyer's Med J 2d 495 (Mar 1981).

electrician was adult human being with far less alleged exposure to PCBs, and he developed different type of cancer than that developed by mice. Fed.Rules Evid.Rule 702, 28 U.S.C.A. General Elec. Co. v. Joiner, 118 S. Ct. 512 (U.S. 1997).

Appellate court deciding question of admissibility of expert testimony regarding excessive levels of organic solvents as cause of toxic encephalopathy, in FELA toxic tort litigation, was not required to engage in highly detailed level of critical analysis of each epidemiological study as part of its de novo review; while analysis of each study for relative risk, confidence interval, biases, confounders, criteria of causality and other numerous factors might be appropriate in considering sufficiency of evidence, it was not appropriate or necessary at initial stage of litigation which focused on admissibility of expert testimony. Federal Employers' Liability Act, §§ 1 et seq., 45 U.S.C.A. §§ 51 et seq.; West's F.S.A. § 90.702. *Berry v. CSX Transp., Inc.*, 709 So. 2d 552 (Fla. Dist. Ct. App. 1st Dist. 1998).

Expert testimony based on epidemiological studies regarding link between exposure to excessive levels of organic solvents and toxic encephalopathy was based on reliable scientific evidence, and thus was admissible under *Frye* in action brought by railroad workers who had been exposed to solvents during their work; studies on which testimony was based were conducted independently of litigation and were peer-reviewed and accepted by journals, and any errors in such studies would principally affect weight to be accorded opinions based on them. West's F.S.A. § 90.702. *Berry v. CSX Transp., Inc.*, 704 So. 2d 633 (Fla. Dist. Ct. App. 1st Dist. 1997), opinion superseded, 1998 WL 85601 (Fla. Dist. Ct. App. 1st Dist. 1998).

## § 95 Experimental evidence

The expert must be able to discuss clinical studies and laboratory experiments that are received in evidence from both the scientific and medical viewpoints.

Note: Generally, in cases involving hazardous chemicals and toxic substances, "clinical studies" refers to clinical trials or tests involving human subjects, while "laboratory experiments" refers usually to tests involving animals, such as dogs, monkeys, mice, rats, and other animals. The processes of the studies and their results should be explained to the jurors in simple terms.<sup>30</sup>

The expert should be able to deal with any particular difficulty of a study as it relates to the scientific issues at trial. For example, a study may be subject to criticism because of a small sampling size, because it was a test on nonhumans, or because of larger exposure to the chemical on the part of the test subjects than was the case with plaintiff. If a study

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<sup>30</sup>Admissibility of experimental evidence to determine chemical or physical qualities or character of material or substance, 76 A.L.R. 2d 354.

involved a prolonged, high-volume exposure, the expert should be ready to explain the scientific process involved and how that process required that type of experimentation.

One strategy consideration is the handling of negative information. In general, the attorney should deal with negative aspects of the scientific studies on direct examination.<sup>31</sup> This has several advantages. First, it allows the expert to deal with the problem in a favorable way, so that the impact is softened. Second, it removes an important portion of the defendant's cross-examination. By the time defense counsel asks about the negative studies, the expert has already explained them. Third, discussing the negative aspects of the study can improve the credibility of both the expert and the attorney.

It should be borne in mind that where counsel has made a pledge either expressly or impliedly to the jury during opening statement to prove the plaintiff's claims on direct examination, a part of that pledge is to lead the jury to the truth, as counsel sees it. By bringing out the negative aspect of the evidence and dealing with it on direct examination, counsel is in effect making good on that pledge. The testimony acquires additional credibility when it indicates that the witness has considered contrary or opposing views and, for good cause, has rejected them.

#### Cases

Trial court abused its discretion in allowing expert witness, who had conducted experiment regarding whether manipulation of asbestos insulation could release asbestos fibers, to also testify concerning amounts of asbestos fibers so released, where experiment was designed to determine only whether fibers could be released and not the level of asbestos exposure. Rules of Evid., Rule 702. *Ball v. Consol. Rail Corp.*, 142 Ohio App. 3d 748, 756 N.E.2d 1280 (8th Dist. Cuyahoga County 2001); West's Key Number Digest, Evidence ¶557.

### § 96 — Illustrative Testimony

In some cases the scientific link between the plaintiff's exposure to a particular hazardous chemical and the condition or illness that subsequently developed rests on experiments that may have been conducted on animals and not on human patients. As a result such experiments may be challenged by the defense in a toxic exposure case as not sufficiently valid to support the opinions and conclusions of the plaintiff's experts on causation. That problem may be handled in the following way:

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<sup>31</sup>See § 96.

- Q. Now doctor, with reference to \_\_\_\_\_ [*particular experiment*], were those test conducted on humans?
- A. No, they were not.
- Q. What were they conducted on?
- A. On rats.
- Q. Does that detract from the validity of the test insofar as it was used by you in forming your opinions in this case?
- A. No, it doesn't.
- Q. Would you please tell us how a study on rats can relate to this case?
- A. Well, of course, we can't experiment on humans. We can study humans that have been exposed to \_\_\_\_\_ [*a particular hazardous chemical or toxic substance*], but they are usually few in number and the human life span is too great for an effective study within a reasonable time. The \_\_\_\_\_ [*clinical study*] which showed that there was an increase in the rate of \_\_\_\_\_ [*condition or illness*] for exposure to \_\_\_\_\_ [*hazardous chemical or toxic substance*] is such a study. It took 15 years and involved less than 200 people. We have a similar problem when we conduct experiments with monkeys. They are hard to find, are expensive, tend to live too long for study. Rats, on the other hand are cheap, plentiful, and have a much shorter life span. We can get a better sampling from these animals. Enough, for example, to draw accurate conclusions. Their physiology, the means of absorption of the chemicals and such are close enough to man physiologically that their use constitutes a valid study.
- Q. Doctor, you mentioned the \_\_\_\_\_ [*clinical study*] of humans exposed to \_\_\_\_\_ [*hazardous chemical or toxic substance*]. Do you find that study to be invalid because of the problems you discussed?
- A. Well, invalid is the wrong word. I would say that, if it was all we had, it would be inconclusive. You can't draw valid conclusions from a study of two hundred people. Also, it wasn't conducted under laboratory conditions. There are too many variables. The primary use of a study like that, however, isn't the assertion of a connection between the exposure and the illness, but to check up on work in the laboratory. You see, we have these rats developing \_\_\_\_\_ [*particular illness or condition*], in the lab. Now we look to see if there is

any evidence of that condition in humans. So we look at a study like the one referred to. If we find a significant increase in the rate of \_\_\_\_\_ [*particular illness or condition*], it is evidence that what was done in the lab is on the right track. It confirms it. It's another piece of evidence.

Q. So your primary use of the \_\_\_\_\_ [*clinical study*] was to confirm the rat study?

A. Right. It shows precisely what I would have projected from that study.

### § 97 Handling the Causation Issue—Direct Examination

The biggest hurdle for a plaintiff's attorney in a hazardous chemical or toxic exposure case is the issue of causation.<sup>32</sup> The causation issue in a toxic exposure case presents difficult problems of expert testimony that must be carefully presented and dealt with in order for counsel to be able to submit the case to the jury.<sup>33</sup>

Generally, particularly in malpractice cases, the courts require the expert to testify "within a reasonable degree of medical probability."<sup>34</sup> This is usually defined as "more likely than not" or "at least 50 percent."<sup>35</sup> The attorney must carefully instruct the witness on the law of the state and on any traps that might lie ahead during testimony. For instance, the expert should be advised to avoid the word "could." An expert's opinion stated in the form that an exposure to a hazardous chemical "could have caused" the illness or condition that

<sup>32</sup>Toxic tort cases are most often successfully defended on the issue of medical causation. Royal, *The Defense of Medical Causation*, 23 *Trial* 40 (Oct 1987).

Gold, *Causation in Toxic Torts: Burdens of Proof, Standards of Persuasion, and Statistical Evidence*, 96 *Yale L J* 376 (1986); Hawes & Chu, *Proximate Cause in Toxic-Tort Cases*, 23 *Trial* 69 (Oct 1987).

<sup>33</sup>See the cases collected in *Admissibility of opinion evidence as to cause of death, disease, or injury*, 66 *A.L.R.* 2d 1082.

<sup>34</sup>See generally, *Causation—Medical Opinion*, 3 *Am. Jur. Proof of Facts* 161.

<sup>35</sup>See, for example, *Cooper v Sisters of Charity, Inc.* (1971) 27 *Ohio St* 2d 242, 56 *Ohio Ops* 2d 146, 272 *NE2d* 97.

subsequently developed in the plaintiff or the plaintiff's decedent may not be sufficient.<sup>36</sup>

To make an effective presentation of the expert's opinion on the issue of causation, the testimony must have an inner consistency and logic. The causation testimony must be supported by a sound understanding, a discussion of the available literature and studies, and by a proper presentation of the surrounding circumstances. For that reason, the expert must relate a precise and accurate medical history of the client, a precise and accurate presentation of the facts of the exposure, and the expert witness must be able to deal adequately with the problems that will arise.

The best way to avoid the causation difficulties is to have the expert give testimony in clear, simple terms indicating confidence in the opinion. While there will usually be some doubts as to causation on scientific terms, carefully planned and phrased testimony can contain what the expert's testimony would be if he or she were asked to place qualifications on it.

Thus, a tactic that counsel should consider in such a case is to have the qualification as to direct causation come from counsel in the framing of his question. This will allow the expert to testify directly that the condition or illness was caused by the exposure. The jury would then be free to reach the conclusion that the words of qualification are a term of art that can be disassociated from the expert's testimony:

- Q. Now doctor, you've examined the plaintiff, read his chart and history, and reviewed the research on this chemical and the plaintiff's illness. In light of what you've seen and read, do you have an opinion regarding the cause of \_\_\_\_\_ [*illness or condition*]?  
A. Yes.  
Q. Do you hold that opinion within a reasonable degree of medical probability?  
A. Yes.  
Q. What is your opinion, Doctor?  
A. The \_\_\_\_\_ [*hazardous chemical*] caused the \_\_\_\_\_ [*illness or condition*].

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<sup>36</sup>On the form of the expert's testimony on the issue of medical causation, see Admissibility of opinion evidence as to cause of death, disease, or injury, 66 A.L.R. 2d 1082 § 7.

### Cases

Expert's testimony that plaintiff cleaning employee's injuries were probably caused by exposure to two cleaning solvents, trichloroethane (TCA) and perchloroethylene (Perc), did not meet *Daubert's* requirement of reliability; expert conceded that only five organic solvents, none of which was involved in instant case, had been proven to be neurotoxic, that it would be improper to infer conclusions as to toxicity of TCA and Perc based on toxicity of other solvents, and that repeated exposure to nonpersistent toxins such as organic solvents over long period must be documented to establish causal relationship. *Schudel v. General Elec. Co.*, 120 F.3d 991 (9th Cir. 1997).

While expert in fields of toxicology and internal medicine could testify generally, in toxic tort case, as to symptoms associated with and harmful effects of exposure to benzene, toluene, styrene, and xylene, he would not be allowed to testify that claimants alleged exposure to these substances, at any level, had significantly increased their risk of developing cancer and required that they be examined twice a year by specialist; such testimony, offered in support of medical monitoring claim, was not based on any existing studies or extrapolated from them, and was not shown to have any support in medical or scientific literature. *Fed. R. Evid.*, Rule 702. *In re Ingram Barge Co.*, 187 F.R.D. 262 (M.D. La. 1999); *West's Key Number Digest*, Evidence ¶555.10.

Evidence and expert testimony regarding scientific theory demonstrating that exposure to solvents may cause toxic encephalopathy was admissible in FELA action in which 84 employees sought damages for alleged brain damage due to exposure to solvents, despite fact that theory had been criticized by some experts, where scientific theory had been frequently tested over 25 year period, no other precise diagnostic device had been developed to show causation, experts testified at length regarding theory, and research was conducted independently of litigation. *Federal Employers' Liability Act*, §§ 1 et seq., 45 U.S.C.A. §§ 51 et seq.; *Rules of Evid.*, Rules 702, 703. *McDaniel v. CSX Transp., Inc.*, 955 S.W.2d 257 (Tenn. 1997).

Epidemiological studies indicating that exposure to a substance more than doubled risk of injury may be part of evidence supporting causation in toxic tort case; however, other factors must be considered, and to raise fact issue on causation, and thus to survive legal sufficiency review, plaintiff must show that he or she is similar to those in studies, including proof of exposure to same substance, that exposure or dose levels were comparable to or greater than those in studies, that exposure occurred before injury, and that timing of onset of injury was consistent with that experienced by those in study, and also must offer evidence excluding other possible causes of disease with reasonable certainty. *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706 (Tex. 1997), reh'g overruled, (Nov. 13, 1997).

Admission of expert's conclusion that worker's inhalation of organic solvent containing 57% gamma-butyrolactone (BLO) and three other chemical compounds in smaller quantities caused worker's short-term symptoms was not abuse of discretion in worker's toxic tort action against solvent's manufacturer, even though there was no epidemiological support for conclusion that inhalation could cause worker's symptoms, expert considered case reports, and expert did not quantify

amount of solvent to which worker was exposed, given district court's thoughtful and thorough inquiry into validity of expert's conclusion and absence of anything in the record to suggest that it was result of unreliable methodology. Fed R Evid Rule 702. *Bonner v. ISP Technologies, Inc.*, 259 F.3d 924 (8th Cir. 2001), reh'g and reh'g en banc denied, (Sept. 19, 2001); West's Key Number Digest, Evidence ¶555.10.

### § 98 —Cross-examination

The defense attorney will invariably attack the expert's testimony on causation and the plaintiff's attorney must prepare the witness thoroughly for the cross-examination. Defense counsel's task will be to compel the expert to admit that a "probability" in the particular case actually means something less than 51 percent.

- Q. Doctor, you stated that the chemical caused the plaintiff's illness and you related it to something called a "reasonable degree of medical probability." What is that?
- A. Well, just what it says, medical probability.
- Q. So your statement was more precisely that the chemical "probably" caused the condition, is that correct.
- A. Yes.
- Q. That means you aren't certain it caused the illness?
- A. Not with absolute certainty, right.
- Q. And it's possible the chemical didn't cause the condition.
- A. Possible? Yes, it's "possible" that the chemical did not cause the condition.
- Q. A lot of things could have caused the illness, right?
- A. Within reason, yes.
- Q. You said the exposure "probably" caused the illness. By that do you mean a fifty percent chance of this causing cancer?
- A. About there, yes.

### § 99 —Redirect examination

In a jurisdiction where reasonable medical probability is equated on a quantitative standard to mean more than 50 percent or at least 51 percent, and the witness has failed to define probability precisely in percentage terms, as in the il-

lustrative testimony during cross-examination,<sup>37</sup> counsel must attempt to repair any damage done on cross-examination on redirect examination of the witness. Simply stated, the witness must be willing to testify that the probability is more than 50 percent.

Q. Doctor, you testified on cross-examination that the probability of causation was around 50 percent. Would you say that it was a greater than 50 percent chance of causation?

A. Yes.

Without such a clarification, the expert's testimony on causation obviously would be in jeopardy. The plaintiff's attorney must, of course, be aware of such a pitfall, and must be ready to cope with it.

### § 100 — Checklist

The thread of logic and consistency in an expert's testimony on causation is required for the connection between exposure and illness to be made. Thus, if the expert can present a logical progression of the disease suffered by the plaintiff from the time of the exposure to when the symptoms first manifested themselves, the expert's testimony can help win the case for the plaintiff. The framework developed in the following checklist should help build a logical consistency.

#### CHECKLIST

- Establish lack of pre-existing health problems
- Establish lack of other toxic exposures
- Establish the facts of the exposure, including length, frequency, and intensity
- Link the incriminated chemical to the illness in clinical studies or laboratory experiments
- Show the expected path of absorption of the chemical and why the type of illness can be related to the chemical
- Show development of the disease within any latency period
- Present firm testimony of causation

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<sup>37</sup>See § 98.

## D. CLOSING ARGUMENT

**§ 101 In general**

During closing argument plaintiff's counsel has an opportunity to explain to the jury that a corporation, as well as an individual, under the American system of jurisprudence is responsible for acts that cause harm to others. Counsel should point out that there is a mechanism in place in our society to help enforce corporate responsibility,<sup>38</sup> and that it has the opportunity and duty to remedy harm caused by a negligent corporation by an award of damages to the hapless victim of such conduct.

A good technique to help secure an adequate award for a plaintiff is to ask the jury rhetorically who is in the better position to remedy the problem created by mishandling a toxic substance, an ordinary person with no training or experience in the technology of the industry or the corporation who through mishandling of it negligently allows such person to be exposed to a toxic substance.

Large corporations all too often show a willful disregard for the safety and rights of the consumer. Some of these corporations knowingly continue their hazardous operations because to remedy the situation would result in a loss of, or perhaps less, profits for the corporation.

**§ 102 Illustrative Summation Highlights—Plaintiff**

The success of a summation for a plaintiff in a toxic exposure case depends on how well counsel is able to weave the facts of the case into a unified and logical pattern that the jury can both perceive and believe. If the evidence is complex, it is counsel's job to simplify it on summation, rather than to go over it again in all its complexity, confusing the jury instead of helping it to understand what counsel is trying to get across. Obviously, the nature of the evidence presented to the jury in the course of the trial will have been piecemeal, making it imperative that counsel reiterate it in a brief, logical fashion at the end of the case, making certain to repeat the essential theory of the case, together with the evidence in support of that theory.<sup>39</sup>

Our case is basically this: Did \_\_\_\_\_ [*plaintiff's decedent*]

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<sup>38</sup>Principles of Summation, 28 Am. Jur. Trials 599.

<sup>39</sup>Summations for the Plaintiff, 6 Am. Jur. Trials 641.

injure his lungs; did his injury result from the inhalation of the toxic poisons we have shown was used at his place of work; and did the aggregate amount of such inhalation hurt him to the degree of disability it has been shown he has suffered? If you believe he did receive his disabling injury from such inhalation, then you will have a decision to make about what the case is worth.

We now know that asbestos is dangerous. We know that if you inhale it, if you work in a building that has asbestos, you will get the fibers in your lungs and you will eventually get lung cancer. That has finally been agreed on. We know that the Surgeon General has warned us about smoking cigarettes. His studies show, and his studies are impartial, that if you smoke a lot of cigarettes over a long period of time, you will get lung disease, whether it be emphysema or cancer.

Then there is the Love Canal, ladies and gentlemen, or how about Diamond Alley right out there? When they poisoned the water the people drink, the only way we found out about it was when they did a study on the children in Lake County and they found out that more of the children had leukemia than should have had. If it wasn't for the study, nothing would have been done. It seems that the only time something gets done is when somebody dies.

In this case \_\_\_\_\_ [*plaintiff*] was told to work where he was working when the area in which he was working was sprayed by a deadly, toxic substance. It was known that he was working there. It was known that he was wearing no protective clothing. Those who were doing the spraying were wearing protective clothing. They knew the danger. Their employer knew the danger. Everyone but this unfortunate person knew the danger. But no one wanted to stop the work long enough for \_\_\_\_\_ [*plaintiff*] to be fitted with protective clothing, or even for long enough for him to leave this dangerous area in which he was working. Of course not, this would have cost someone some money.

When this deadly toxic substance was sprayed in the area in which \_\_\_\_\_ [*plaintiff*] was working, it had a predictable result. \_\_\_\_\_ [*Plaintiff*] fell to the ground, unconscious. He was carried out by his fellow workers, and from that day his health problems began. Not before that day, mind you, but from that day. Before that time he was in prime health. He seldom had missed a day of work because of illness in the \_\_\_\_\_ [*number*] years that he had worked.

You have heard \_\_\_\_\_ [*expert*] testify that this toxic

substance inhaled in the lungs can cause the type of injury from which \_\_\_\_\_ [plaintiff] suffered immediately after his exposure to the substance. You have heard him testify that in his expert opinion this exposure was the cause of such injury.

So how do we go about doing something to stop this type of injustice? How do we protect our people against the greed of those who would profit at the expense of our health? We do it through our courts, through our jury system.

Our impartial jury system gives the jury the right by their award to say to the rest of society and all the big corporations and the multinational companies, that these tragedies must stop, that the businesses that are killing our children and our workers are no longer going to be allowed to do so without paying a price, a price big enough to make it unprofitable for them to continue doing it. And that's what this case is all about.

Even so, of course, nobody goes to jail, and so some companies will probably continue to operate in the same way because they make a great deal of money doing so. They will keep doing the same things all over, and probably that will go on. But you can stop this company from doing it by making it so expensive to do so that they will have nothing to gain from continuing it.

In your wisdom, in your consummate wisdom and experience, you can say to yourself, well, I am just going to award \_\_\_\_\_ [plaintiff] enough to make them pay for their negligence. I am going to award \_\_\_\_\_ [plaintiff] enough to make them think twice before they do this to another person.

What all this means is that if you feel from the evidence that has been presented to you, as complex as it was, that something wrong happened to \_\_\_\_\_ [plaintiff] as the result of the negligence of \_\_\_\_\_ [defendant], and that he really didn't have anything to do with what happened to him, you will award him an amount that will help to compensate him for his injury; an amount large enough to make it unprofitable for this company to do it again. An amount large enough to give this defendant a lesson; large enough to make sure they won't do it again.

## E. JURY INSTRUCTIONS

### § 103 In general

Many jurisdictions today have adopted pattern jury instructions which cover virtually all of the introductory and concluding instructions that are used in civil cases as well as most of

the major areas of tort and contract liability.<sup>40</sup> Pattern jury instructions are frequently prepared or approved by a judicial body, and they therefore tend to be preferred by trial judges although their use is seldom obligatory.

Pattern jury instructions, while extensive, do not cover all cases, and use of pattern jury instructions does not insure against judicial error in the giving of instructions. Often it may be necessary or even desirable for counsel to offer specially prepared jury instructions. In the following sections, the article sets forth for illustrative purposes jury instructions from the model trial case. They are intended to provide a guide to the drafting of instructions in a similar case. Counsel should check local law requirements prior to adaptation or use of such instructions.

### § 104 Liability

Originally, suit was brought against the owner of the premises on which the injury occurred, the general contractor, and the paint manufacturer, but before trial it was decided to dismiss the actions against all but the painting contractor. Thus, the various theories of liability first considered were reduced to two: (1) negligence of the painting contractor in spraying the sealant in a partially enclosed area knowing that there were other unprotected workers in the area who might be affected by the fumes, and (2) wanton and willful misconduct justifying an award of punitive damages. Thus, these issues were tried on traditional common-law principles and did not require the application of special rules of law such as were involved in suits against the owner, general contractor or the paint manufacturer.<sup>41</sup>

Instructions dealing with liability for negligence, including the contentions of the parties, burden of proof, definition of negligence, and proximate cause follow below. Instructions concerning right to recover damages for negligence and for willful and wanton misconduct will be found in the section dealing with punitive damages.<sup>42</sup>

#### CONTENTIONS OF THE PARTIES

Plaintiff contends that while employed by \_\_\_\_\_ [*em-*

<sup>40</sup>Instructing the Jury—Pattern Instructions, 6 Am. Jur. Trials 923.

<sup>41</sup>See §§ 10–14.

<sup>42</sup>See § 105.

ployer], he worked as a foreman at the construction site of the \_\_\_\_\_ [type of construction] at \_\_\_\_\_ [location]. \_\_\_\_\_ [Defendant] was the painting subcontractor at the site.

Plaintiff further contends that through the negligence of the defendant he was exposed to toxic chemicals, to wit: \_\_\_\_\_ [toxic chemicals] at the site, and that as a direct and proximate result of this negligence he was permanently injured.

The defendant admits that the plaintiff was employed by \_\_\_\_\_ [employer] at \_\_\_\_\_ [construction site] but denies that it was negligent.

#### BURDEN OF PROOF

The burden of proving by a preponderance of the evidence that the defendant was negligent rests with the plaintiff. Conversely, the burden of proving by a preponderance of the evidence that plaintiff was negligent rests upon the defendant. The court will define the concept of comparative negligence later in this charge.<sup>43</sup>

#### DEFINITION OF NEGLIGENCE

Negligence is a failure to use ordinary care. Ordinary care is that degree or amount of care which a reasonably prudent person would have used taking into consideration all of the facts, circumstances, and conditions in which such person was placed at the time of the happening in question, if a happening occurred.

In determining whether ordinary care was used, you will consider whether the defendant ought to have foreseen under the attending circumstances that the natural and probable result of an act or omission would cause some damage.

You will observe that ordinary care has relative meaning: The degree or amount of care required increases in proportion to the danger that should reasonably be foreseen. However, the test is still the amount of ordinary care under the circumstances and conditions at the time the accident occurred, if it occurred.

The test for foreseeability is not whether a party should have foreseen the damage in its precise form or as to the specific property. The test is whether in the light of all the circumstances a reasonably prudent person would have anticipated that damage was likely to result to some person from the performance or nonperformance of the act.

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<sup>43</sup>See § 106.

Where a party by the use of ordinary care, should have foreseen some injury and in the exercise of ordinary care would have taken precautions to avoid the accident, then his performance or failure to have taken precautions would constitute negligence.

#### PROXIMATE CAUSE

Proximate cause is an act or omission which, in the natural and continuous sequence of events, produces the injuries and without which the result would not have occurred. Proximate cause exists when the injuries are the natural and foreseeable result of the act or failure to act.

There may be more than one proximate cause. When the negligent act of one party combines with the negligent act of another to produce plaintiff's injuries, the negligence of each is a cause. It is not necessary that the negligence of each occur at the same time, nor that there be a common purpose or action.

#### § 105 Damages

The following instructions deal with the plaintiff's claims of special and general damages and the claim for punitive damages, which required a showing of actual malice.<sup>44</sup>

#### DAMAGES

If you find for the plaintiff, you will determine from the preponderance of the evidence an amount of money that will reasonably compensate him for the actual injury and damage proximately caused by the negligence of the parties involved.

In determining the amount, you will consider the nature and extent of the injury; the effect upon physical health; the pain that was experienced; the ability or inability to perform usual activities; the earnings that were lost; and the reasonable cost of necessary medical and hospital expenses incurred by the plaintiff. From these you will determine what sum will compensate the plaintiff for his damages to date.

You will note that the plaintiff claims that his injury is

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<sup>44</sup>**Note:** In the model trial case there was evidence that the foreman of the painting contractor's crew deliberately ordered spraying with the sealant used by that company at the time plaintiff was exposed in order to create problems of exposure that would justify another shift at the construction site to increase the company's profits and overtime pay or shift differential pay to the company's crew. This evidence formed the basis of a claim for punitive damages.

permanent. As to such claim, no damage may be found except that which is reasonably certain to exist as a proximate result of the incident. Regarding permanent damages, you are not to speculate. The law deals in probabilities and not mere possibilities. In determining permanent damages, you may consider only those things that you find from the evidence are reasonably certain to continue.

#### LIFE EXPECTANCY

If you find for the plaintiff and if you find that the injury is permanent, you may consider how long the plaintiff is likely to live.

The evidence of the life expectancy of people \_\_\_\_\_ years of age is an estimate of the average remaining length of life of all persons in this country based upon a limited number of persons of that age. It is an incomplete figure and does not indicate the future life span of any individual. Such evidence is not conclusive; however, it may be considered along with all other evidence.

#### LOSS OF EARNINGS

You will consider whatever loss of earnings the evidence shows that the plaintiff sustained as a proximate result of the injury.

You will also consider whatever loss, if any, of earnings the plaintiff will, with reasonable certainty, sustain in the future as a proximate cause of the injury. The measure of such damage is what the evidence shows with reasonable certainty to be the difference between the amount he was capable of earning before he was injured and the amount he is capable of earning in the future in his injured condition. You should consider only those things that you find from the evidence are reasonably certain to continue.

#### PUNITIVE DAMAGES

If you find for the plaintiff and award actual damages, you may also consider whether you will separately award punitive damages. If you do not find actual damages, you cannot consider punitive damages.

Punitive damages is an amount which a jury may, but is not required to award as a punishment to discourage others from committing similar unlawful acts. Punitive damages may be awarded only where a party intentionally and with actual

malice injured another without lawful justification or excuse. Actual malice means anger, hatred, ill will, a spirit of revenge, or reckless disregard of the consequences of legal rights of others.

A corporation acts through its officers and employees. It is responsible for their acts or failures to act when they act within the scope of their employment. A principal's liability for willful, wanton, and malicious acts of its agent does not extend to a liability in punitive damages unless the principal has authorized, ratified, acquiesced, or participated in the agent's conduct.

If you award punitive damages, the amount should be fair and reasonable under all the facts and circumstances. It should not be excessive, nor actuated by passion or prejudice. The amount of punitive damages rests in the sound judgment of the jury and should be determined from all the evidence in the case. If no amount is awarded for punitive damages, write the word "none" in lieu of an amount in the space provided.

If you award punitive damages, you may consider and include in the award for actual damages a reasonable amount for the attorney fees of counsel employed by the plaintiff in the prosecution of this action.

### § 106 Comparative Negligence

Although any claim of comparative negligence in the model trial case will be very weak, it was an issue that had to be dealt with by the jurors.<sup>45</sup> The following instructions cover the issue in the model trial case:

#### HOW JURY IS TO ARRIVE AT A VERDICT

If you find that the plaintiff was not negligent and that defendant was negligent and said negligence was the proximate cause of plaintiff's injuries, then your verdict must be for the plaintiff.

However, if you find that plaintiff failed to prove that defendant was negligent, or that defendant's negligence proximately caused plaintiff's injuries, or if you are unable to determine

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<sup>45</sup>Trial of a Personal Injury Case in a Comparative Negligence Jurisdiction, 21 Am. Jur. Trials 715.

Liability of manufacturer or seller for injury caused by paint, cement, lumber, building supplies, ladders, small tools, and like products, 78 A.L.R. 2d 696 § 6.5 (comparative negligence).

how the accident occurred, if it occurred, then your verdict must be for the defendant.

If you find that the plaintiff was negligent, that the plaintiff's negligence directly and proximately caused his own injury and damage, and that his negligence was more than 50 percent, you will return a general verdict for the defendant. If you find that the plaintiff's negligence was 50 percent or less, you will enter a verdict for the plaintiff according to my further instructions.<sup>46</sup>

#### NEGLIGENCE COMPARED

Defendant claims that the plaintiff committed an act or acts of negligence which directly and proximately caused plaintiff's injuries and damages. I have instructed you on the subject of negligence. If you find by the greater weight of the evidence that the plaintiff was negligent and that plaintiff's negligence contributed to and was a direct and proximate cause of his own injuries and damages, you will then be required to determine to what extent plaintiff's injuries and damages resulted from his own negligence compared with the negligence, if any, of the defendant.

If you find that both the plaintiff and the defendant were negligent, that plaintiff's negligence was 50 percent or less, and that the negligence of both plaintiff and defendant proximately caused plaintiff's injuries, then you must continue your deliberations and answer written interrogatories about the total amount of damage and the percentages of negligence attributable to each party.<sup>47</sup>

#### ANSWERING SPECIAL INTERROGATORIES

I will give you written questions called interrogatories, on which you will decide by the greater weight of the evidence, the percentage of plaintiff's negligence, if any, that directly and proximately caused his own injuries and damages and the percentage of negligence, if any, of the defendant which directly and proximately caused plaintiff's injuries and damages.

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<sup>46</sup>In many states a "pure" form of comparative negligence exists under which the plaintiff is not barred from a recovery unless the defendant is totally exonerated of negligence. If the defendant is adjudged 10 percent at fault for the accident, the plaintiff may recover 10 percent of the total actual damages suffered. Trial of a Personal Injury Case in a Comparative Negligence Jurisdiction, 21 Am. Jur. Trials 715 § 3

<sup>47</sup>Special Verdicts, 6 Am. Jur. Trials 1043 § 3 (written interrogatories to jury).

Your first duty regarding these questions will be to decide by the greater weight of the evidence the total amount of damages you find that the plaintiff sustained, regardless of which party caused those damages. I have previously instructed you on the subject of damages and ask that you apply those instructions here.

After arriving at the total amount of damages which you find that plaintiff sustained, you will then decide to what extent plaintiff's negligence, if any, directly and proximately caused the injuries and damages and to what extent defendant's negligence, if any, caused the injury and damage. You will express that decision in the form of percentages. The percentage of plaintiff's negligence, if any, plus the percentage of defendant's negligence, if any, must total 100 percent.

Based on the percentages you find, the court will compute any damages to be awarded by applying those percentages to the total damages.

*[Further instructions on comparative damages and answering special interrogatories omitted.]*

## **X. APPENDIX**

### **§ 107 In general**

Toxic exposure cases can run from the relatively uncomplicated factual situation of the model trial case,<sup>48</sup> involving a single exposure to a known industrial substance, to mass-disaster tort cases, involving tens of thousands of workers exposed to chemicals and substances over long periods of time. It is impossible to present an article on the subject that will provide technical information applicable to all cases. The following sections provide bibliographical information which may assist counsel in a toxic exposure case to locate pertinent medical, scientific, and technical materials needed to prepare for litigation. A list of experts in the fields of industrial hygiene and toxicology precedes the bibliographic sections,<sup>49</sup> and additional legal references not included in the collateral references at the beginning of the article are also provided.<sup>50</sup>

### **§ 108 Expert witness list**

The following is a list of industrial hygiene and toxicology

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<sup>48</sup>See §§ 3–9.

<sup>49</sup>See § 108.

<sup>50</sup>See §§ 114, 115.

experts from a recognized text.<sup>51</sup> The list is not a complete list, nor does it cover all geographical areas. It contains only those experts whose statements of expertise indicated a background in toxicology or experience in toxic exposure litigation. No particular recommendation should be implied from an individual's inclusion in the list below. In addition to industrial hygiene and toxicology experts, the text contains expert witness lists in many other fields, including chemical and petroleum engineering,<sup>52</sup> construction,<sup>53</sup> materials handling,<sup>54</sup> and maintenance.<sup>55</sup>

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<sup>51</sup>See 1 Philo, Lawyers Desk Reference (7th ed.) § 1:21.

The reader should also consult The American Institute of Chemical Engineers, 345 East 47th Street, New York, NY 10017, which publishes symposia, books, periodicals, and proceedings in the field of chemical engineering, including a consultant directory. See M. Healy, ed., Directory of Chemical Engineering Consultants, 6th Edition, No. D-13.

<sup>52</sup>1 Philo, Lawyers Desk Reference (7th ed.) § 1:11.

<sup>53</sup>Id. at § 1:12.

<sup>54</sup>Id. at § 1:27.

<sup>55</sup>Id. at § 1:26.

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### § 109 Textbooks

There are many medical and scientific texts available concerning toxic exposures and resulting injuries. The most pertinent are available from the American Conference of Governmental Hygienists,<sup>56</sup> which publishes a number of books on industrial hygiene and plant and construction safety, including the following:

P. Dreisler Jr., ed., Reducing the Carcinogenic Risks in Industry (Pub. No. 4110)

R. Conway, Environmental Risk Analysis for Chemicals (Pub. No. 4160)

H. Fawcett & W. Wood, eds., Safety and Accident Prevention in Chemical Operations (Pub. No. 0570)

J. Fullman, Constructions Safety, Security and Loss Prevention (Pub. No. 4200)

D. Jones & A. Chapman, eds., Occupational Lung Diseases: Research Approaches and Methods (Pub. No. 4390)

Matheson, Effects of Exposure to Toxic Gases First Aid and Medical Treatment (Pub. No. 0790)

Patty's Industrial Hygiene and Toxicology, 3d Revised Edition, 6 Volumes:

Vol. 1: General Principles (Pub. No. 0600)

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<sup>56</sup>The American Conference of Governmental Industrial Hygienists, 6500 Glenway Avenue, Building D-7, Cincinnati, OH 45211.

- Vol. 2A: Toxicology (Pub. No. 0610)  
Vol. 2B: Toxicology (Pub. No. 0620)  
Vol. 2C: Toxicology (Pub. No. 0630)  
Vol. 3A: The Work Environment (Pub. No. 0641)  
Vol. 3B: Biological Response (Pub. No. 0642)  
A. Reeves, ed., Toxicology: Principles and Practice, Volume I (Pub. No. 4020)  
N. Sax, Dangerous Problems of Industrial Materials, 6th Edition (Pub. No. 0680)  
A. Schwope, P. Costas, J. Jackson & D. Weitzman, Guidelines for the Selection of Chemical Protective Clothing, 2d Edition (Pub. No. 0460)  
F. Sperling, ed., Toxicology: Principles and Practice, Volume II (Pub. No. 4030)  
Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment and Biological Exposure Indices with Intended Changes for 1985–1986 (Pub. No. 0015)  
P. Williams & J. Burson, eds., Industrial Toxicology: Safety and Health Applications in the Workplace (Pub. No. 4630)

Some other texts of interest include the following:<sup>57</sup>

- American College of Chest Physicians, Lung Cancer and Asbestos-Related Pulmonary Disease: A National Correspondence Course (Chicago, 1983)  
D. Baskin, ed., Handling Guide for Potentially Hazardous Commodities (Chicago, 1972)  
M. Morgan & A. Seaton, Occupational Lung Diseases, (Philadelphia, W.B. Saunders, 1975)  
National Institute for Occupational Safety and Health, Department of Health and Human Services, Extent of Exposure to Methylene Chloride (1980)  
N. Sax, Dangerous Properties of Industrial Substances 6th Edition (Van Nostrand Reinhold 1985)

## § 110 Federal government publications

There is a vast library of publications on chemical engineer-

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<sup>57</sup>For additional text references in toxic tort litigation, see Royal, The Defense of Medical Causation, 23 Trial 40, 45 (bibliography) (Oct 1987)

ing and safety, occupational health and safety, and on industrial hygiene and toxicology available through the federal government. Many of these publications are of general interest; many of them relate specifically to a particular chemical or substance or to a specific hazard. A catalog of publications is available through the U. S. Government Printing Office.<sup>58</sup> The U.S. Government Printing Office also maintains bookstores in most major cities, which are generally found in the local federal building.

Also available is the Publications Catalog of the National Institute for Occupational Safety and Health (NIOSH),<sup>59</sup> which may be very helpful in hazardous chemical and toxic exposure cases for technical background material. The Institute is part of the Center for Disease Control and under the U.S. Department of Health and Human Services. NIOSH publications are available as well through the National Technical Information Service (NTIS).<sup>60</sup> Within the context of the model trial case, the following NIOSH monographs would be worth examining.

Occupational diseases—a guide to their recognition. Pub. No. 77-181, NTIS No. PB 83-129-528

Occupational health guidelines for chemical hazards. Pub. No. 81-123, NTIS No. PB 83-154-609

A guide to the work-relatedness of disease. Pub. No. 76-116, NTIS No. PB 298561

NIOSH/OSHA pocket guide to chemical hazards. Pub. No. 78-210, NTIS Pub. No. PB83-105338

Registry of toxic effects of chemical substances. 1981–82 edition. Pub. No. 83-107, GPO Pub. No. 017-033-00406-4

The industrial environment—its evaluation and control. Pub. No. 74-117. GPO. Pub. No. 017-001-00396-4

Development of performance criteria for protective clothing used against carcinogenic liquids. Pub. No. 79-106. NTIS Pub. No. PB 299318

NIOSH pocket guide to chemical hazards. Pub. No. 78-

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<sup>58</sup>The catalog may be obtained by writing the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

<sup>59</sup>National Institute for Occupational Safety and Health, 4676 Columbus Parkway, Cincinnati, Ohio 45226.

<sup>60</sup>National Technical Information Center, U.S. Department of Commerce, 5825 Port Royal Road, Springfield, VA 22161.

210, Reprinted September 1985. GPO No. 017-033-00342-4

Registry of toxic effects of chemical substances. 1981-82 edition. Pub. No. 83-107. GPO Pub. No. 017-033406-4

Registry of toxic effects of chemical substances. 1983-84 supplement to the 1981-82 edition. Pub. No. 86-103

NIOSH Criteria Documents: Recommended standards for exposure to certain chemicals, including: Ketones. NTIS No. PB80-176 076; Methylene Chloride. NTIS No. PB81-227 027; Phosgene. NTIS No. PB 267-514

Publications of the Occupational Safety and Health Agency (OSHA) can also be extremely helpful in providing technical background material in hazardous chemical and toxic exposure cases. They may be obtained by writing the OSHA Publication Distribution Office.<sup>61</sup> The agency also maintains the Technical Data Center that collects articles, data base literature searches, industry standards, OSHA-related publications, rule-making information, and technical reference materials in the fields of biology, chemistry, occupational safety and health, toxicology, and environmental engineering and science.<sup>62</sup>

### § 111 Industry publications

Counsel should also consider private industry standards in hazardous chemical and toxic substance exposure cases. The American National Standards Institute (ANSI) is a national clearinghouse and coordinating agency for standards which are set up by various segments of American industry. The institute which is located at 1430 Broadway, New York, NY 10018, will supply a catalog of standards on request. Of particular interest in the field of chemical and construction safety are the following reports and monographs:

Precautionary labeling of hazardous industrial chemicals (Z129.1-1982)

Manual of hazardous chemical reactions (ANSI/NFPA 491-M-1986)

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<sup>61</sup>Occupational Safety and Health Agency, Publication Distribution Office, U.S. Department of Labor, Washington, DC 20210.

<sup>62</sup>Requests for information from the data center should be sent to OSHA Technical Data Center, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210. The telephone number is (202) 523-9700.

The American Industrial Hygiene Association<sup>63</sup> distributes materials concerning industrial hygiene problems, including the following texts:

- Basic Industrial Hygiene (1975)
- Industrial Hygiene: A Guide to Technical Information Sources
- Workplace Environmental Exposure Level Guide Series
- Respiratory Protection Program-A Manual and Guideline (1980)
- Respiratory Protection Monograph
- Toxicology, Industrial Hygiene and Medical Control of Polyurethanes and Related Materials
- A Guide to Product Health and Safety and the Right to Know (1986)

The National Safety Council should also be consulted about standards and publications.<sup>64</sup> For example, among the Council's industrial safety data sheets are the following:

- Methylene Chloride (Dichloromethane) No. 474 (1984)
- Paint Spraying and Detearing, Electrostatic No. 468 (1985)
- Painting, Airless Spray No. 548 (1985)

## § 112 Medical periodicals—toxic substances

Exposure to hazardous chemicals and toxic substances produces a variety of mild to severe symptoms of neurologic, cardiac and pulmonary diseases and conditions as well as contact dermatitis and other dermatologic disorders. Each case therefore presents different medical problems of diagnosis, treatment and prognosis, many of which relate to the paramount issue of proximate causation. Counsel handling serious personal injury cases should be familiar with the location and hours of the nearest university medical center for access to a medical library. These libraries are usually open to the public. They do not generally permit circulation of books except to

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<sup>63</sup>American Industrial Hygiene Association, 475 Wolf Ledges Parkway, Akron, OH 44311-1087.

<sup>64</sup>The Council may be reached at The National Safety Council, 444 North Michigan Avenue, Chicago, IL 60611.

medical staff and students, but copying machines are usually available. Within the scientific and medical issues of a case like the model trial, the following medical periodical articles are generally pertinent.

### **In General**

- Brodie, Toxicology and the Biomedical Sciences, 148 Science 1547 (Jun 1965)
- Felton, The Occupational History: A Neglected Area in the Clinical History, 11 J Fam Pract 33 (1980)
- Goldman & Peters, The Occupational and Environmental Health History, 246 JAMA 2831 (1981)
- Guidotti, Coal Workers' Pneumoconiosis and Medical Aspects of Coal Mining, 72 South Med J 456 (1979)
- Guidotti & Abraham, Occupational Lung Diseases, 29 Am Fam Physician 169 (1984)
- Kazyak, Information Exchange and Computerized Data Retrieval for Toxicology, 19 J Forensic Sci 147 (Jan 1974)
- Moritz, Henriques, & McLean, The Effect of Inhaled Heat on the Air Passages and Lungs: An Experimental Investigation, 21 Am J Pathol 311 (1945)
- Morris, Koepsell, Daling, Taylor, Lyon, Swanson, Child, & Weiss, Toxic Substance Exposure and Multiple Myeloma: A Case-Control Study, 76 J Natl Cancer Inst 987 (Jun 1986)
- Moylan, Smoke Inhalation: Diagnostic Techniques and Steroids, 19 J Trauma 917 (1979 supp)
- Moylan & Alexander, Diagnosis and Treatment of Inhalation Injury, 2 World J Surg 185 (1978)
- Occupational and Environmental Health Committee of the American Lung Association of San Diego and Imperial Counties, Taking the Occupational History, 99 Ann Intern Med 641 (1983)
- National Institute for Occupational Safety and Health, Leading Work-Related Diseases and Injuries—United States, 255 JAMA 1552 (Mar 1986)
- Smyth, The Experimental Toxicologist and the Occupational Physician, 22 Arch Environ 287 (Feb 1971)
- Summer & Haponik, Inhalation of Irritant Gases, 2 Clin Chest Med 273 (May 1981)
- Ziskind, Occupational Pulmonary Disease, 30 Clin

Symp 1 (1978)

### **Asbestosis**

Libshitz, Wershba, Atkinson & Southard, Asbestosis and Carcinoma of the Larynx: A possible Association, 228 JAMA 1571 (Jun 1974)

Gross, Is Short-Fibered Asbestos Dust a Biological Hazard?, 29 Arch Environ Health 115 (Aug 1974)

Scansetti, Cement, Asbestos, and Cement-Asbestos Pneumoconiosis, 30 Arch of Environ Health 272 (Jun 1975)

Shettigara & Morgan, Asbestos, Smoking, and Laryngeal Carcinoma, by Arch Environ Health 517 (Oct 1975)

### **Carbon Monoxide**

Barrowcliff & Knell, Cerebral Damage Due to Endogenous Chronic Carbon Monoxide Poisoning Caused by Exposure to Methylene Chloride, 29 J Soc Occup Med 12 (1979)

Ginsberg & Myers, Experimental Carbon Monoxide Encephalopathy in the Primate, 30 Arch Neurol 202 (1974)

Larkin, Brahos & Moylan, Treatment of Carbon Monoxide Poisoning: Prognostic Factors, 16 J Trauma 111 (1976)

Peterson & Stewart, Absorption and Elimination of Carbon Monoxide by Inactive Young Men, 21 Arch Environ Health 165 (1970)

### **Methylene Chloride**

Anderson, The Effect of Methylene Chloride on Human Health, 7 Occup Med Curr Concepts 1 (1984)

Anderson & Huntebrinker, "Exposure to Methylene Chloride in Small Furniture Stripping Shops," In Proceedings of the SOEH Conference on the Health Hazards in the Arts and Crafts, 65-75 (1980)

Collier, Methylene Chloride Intoxication in Industry—A Report of Two Cases, 1936 Lancet I 594-595

Gerritsen & Buschmann, Phosgene Poisoning Caused by the Use of Chemical Paint Removers Containing Methylene Chloride in Ill-Ventilated Rooms Heated by Kerosene Stoves, 17 Br J Industrial Med 187 (1960)

Miller, Pateras, Friederici & Engel, Acute Tubular Necrosis After Inhalation Exposure to Methylene Chloride; Report of a Case, 145 Arch Intern Med 145 (Jan 1985)

News Briefs—Methylene Chloride, 33 Am Fam Physician 359 (Feb 1986)

Putz, Johnson, Setzer, A Comparative Study of the Effects of Carbon Monoxide and Methylene Chloride on Human Performance, 2 J Environ Pathol Toxicol 97 (1979)

Stewart, Fisher, Hosko, Peterson, Baretta & Dodd, Experimental Human Exposure to Methylene Chloride, 25 Arch Environ Health 342 (1972)

Stewart & Hake, Paint Remover Hazard, 235 JAMA 398 (1976)

Wang, Lee & Poh, Phosgene Poisoning from a Smoke Grenade, 70 Eur J Respir Dis 126 (Feb 1987)

### **Silicosis**

Brieger & Gross, On the Theory of Silicosis, 15 Arch Environ Health 751 (Dec 1967)

Clarke, Silicosis and Diseases of Retired Iron Foundry Workers, 41 Ind Med & Surg 22 (Jun 1972)

Pratt, Role of Silica in Progressive Massive Fibrosis in Coal Worker's Pneumoconiosis, 16 Arch Environ Health 734 (May 1968)

Samimi, Respirable Silica Dust Exposure of Sandblasters and Associated Workers in Steel Fabrication Yards, 29 Arch Environ Health 61 (Aug 1974)

Ziskind, Jones, & Will, Silicosis, 113 Am Rev Respir Dis 643 (1976)

### **§ 113 —Pulmonary conditions**

Exposure to a toxic subject may cause different reactions in its victims. In the model trial case, the plaintiff suffered severe and disabling pulmonary conditions as a result of the exposure. The following medical articles deal with some of those conditions and related matters.

#### **In General**

Andrash & Bardana, Thermo Activated Price-Label Fume Intolerance: A Cause of Meat-Wrapper's Asthma,

235 JAMA 937 (Mar 1976)

Brody, The Effect of Position on Pulmonary Function in Chronic Obstructive Lung Disease, 92 Am Rev Respiratory Dis 579 (1965)

Buie, Pratt & May, Diffuse Pulmonary Injury Following Paint Remover Exposure, 81 Am J Med 702 (Oct 1986)

Chu, New Concepts of Pulmonary Burn Injury, 21 J Trauma 958 (1981)

Cordasco & Stone, Pulmonary Edema of Environmental Origin, 64 Chest 182 (Aug 1973)

Council on Scientific Affairs, Effects of Toxic Chemicals on the Reproductive System, 253 JAMA 3431 (Jun 1985)

Funahashi et al., Identification of Foreign Material in Lung by Energy Dispersive X-Ray Analysis, 30 Arch Environ Health 285 (Jun 1975)

Hodgkin, Balchum, Kass, Glaser, Miller, Haas, Shaw, Kimbel & Petty, Chronic Obstructive Airway Diseases: Current Concepts in Diagnosis and Comprehensive Care, 232 JAMA 1243 (1975)

Hogg, Macklem & Thurlbeck, Site and Nature of Airway Obstruction in Chronic Obstructive Lung Disease, 278 New Eng J Med 1355 (Jun 1968)

Mitchell, Industrial Pulmonary Disease, 212 Practitioner 327 (Mar 1974)

Olazabal, Pulmonary Emboli Masquerading as Asthma, 278 New Engl J Med 999 (May 1986)

Putnam & Tellis, Hemoptysis: Diagnosis and Management, 7 Lawyer's Med J 2d 151 (1978)

Williams, Expiratory and Inspiratory Flow Rates in Chronic Obstructive Pulmonary Disease, 48 Dis Chest 262 (1965)

Zapol & Snider, Pulmonary Hypertension in Severe Acute Respiratory Failure, 296 New Eng J Med 476 (Mar 1977)

### **Bronchitis**

Brinkman, The Prognosis in Chronic Bronchitis, 197 JAMA 1 (1966)

Freeman, The Present Status of Antibiotics in the Treatment of Chronic Bronchitis, 209 Practitioner 743 (1972)

- Harris, Acute Obstructive Bronchiolitis: Presentation of Fatal Case, 194 JAMA 91 (1965)
- Johnston, Management of Chronic Bronchitis and Pulmonary Emphysema, 49 Med Clinics North Amer 1309 (Sep 1965)
- Kelsey, Population Mobility and Epidemiology of Chronic Bronchitis in Connecticut, 16 Arch Environmental Health 853 (1968)
- Lowe, Industrial Bronchitis, 1 Brit Med J 463 (Feb 1969)
- Oswald, Relationship Between Breathlessness and Anxiety in Asthma and Bronchitis: A Comparative Study, 2 Brit Med J 14 (Apr 1970)
- Pines, Antibiotic Regimens in Severe and Acute Purulent Exacerbations of Chronic Bronchitis, 2 Brit Med J 735 (Jun 1968)
- Reid, Chronic Bronchitis and Emphysema, 12 Adv Internal Med 365 (1964)
- Rossing & Clay, Pathogenesis of Emphysema: Experimental Observations, 43 Dis Chest 255 (Sep 1965)
- Stuart-Harris, Respiratory Viruses, Ciliated Epithelium, and Bronchitis, 93 Am Rev Respiratory Dis 150 (1966)
- Taub, Emphysema, Chronic Bronchitis and Asthma, 45 J Eye Ear Nose & Throat Monthly 110 (1966)

### **Emphysema**

- Aviado, Cigarette Smoke and Pulmonary Emphysema, 20 Arch Environ Health 483 (Apr 1972)
- Barach, Regulated Oxygen Therapy and Adaptive Values of CO<sub>2</sub> Retention in Patients with Pulmonary Emphysema, 23 Ann Allergy 361 (Aug 1965)
- Boren, Experimental Emphysema: Basis, Review, and Critique, 92 Amer Rev Respiratory Dis 1 (Jul 65)
- Gross, A Biochemical Pathogenetic Aspect of Emphysema, 15 Arch Environ Health 411 (Oct 1967)
- Gross, Experimental Emphysema: Effect of Chronic Nitrogen Dioxide Exposure and Papain on Normal and Pneumoconiotic Lungs, 16 Arch Environ Health 51 (Jan 1968)
- Gross & deTreville, Emphysema and Pneumoconiosis: An Experimental Study on Their Interrelationship, 18 Arch Environ Health 340 (Mar 1969)

**§ 114 Annotations**

A plaintiff's toxic exposure often occurs in the workplace and results in a workers' compensation claim. Because of the long latency period of many illnesses and conditions caused by toxic exposure, statute of limitations issues frequently arise in third-party litigation arising out of a worker's toxic exposure. The following annotations discuss general and specific problems arising out of both of these issues:

**Workers' Compensation**

Worker's compensation: Liability of successive employers for disease or products liability: inhalation of asbestos, 39 A.L.R. 4th 399

Right of employee to injunction preventing employer from exposing employee to tobacco smoke in workplace, 37 A.L.R. 4th 480

Workers' compensation: liability of successive employers for disease or condition allegedly attributable to successive employments, 34 A.L.R. 4th 958

Cancer as compensable under workers' compensation acts, 19 A.L.R. 4th 639

Right to unemployment compensation as affected by employee's refusal to work in areas where smoking is permitted, 14 A.L.R. 4th 1234

Leaving or refusing employment because of allergic reaction as affecting right to unemployment compensation, 12 A.L.R. 4th 629

Employer's tort liability to worker for concealing workplace hazard or nature or extent of injury, 9 A.L.R. 4th 778

Liability under Federal Employers' Liability Act (45 USC secs. 51 et seq.) for industrial or occupational disease or poisoning, 30 A.L.R. 3d 735

Sufficiency of proof that cancer resulted from accident or incident in suit rather than from pre-existing condition, 2 A.L.R. 3d 384

Silicosis as a disability within Social Security Act, 77 A.L.R. 2d 641

Judicial notice of diseases or similar conditions adversely affecting human beings, 72 A.L.R. 2d 554

Qualifications of chemist or chemical engineer to testify as to effect of poison upon human body, 70 A.L.R. 2d

1029

Master's liability for failure to inform servant of disease or physical condition disclosed by medical examination, 69 A.L.R. 2d 1213

### Statute of Limitations

Time of discovery as affecting running of statute of limitations in wrongful death action, 49 A.L.R. 4th 972

When statute of limitations begins to run as to cause of action for development of latent industrial or occupational disease, 1 A.L.R. 4th 117

Statute of limitations: running of statute of limitations on products liability claim against manufacturer as affected by plaintiff's lack of knowledge of defect allegedly causing personal injury or disease, 91 A.L.R. 3d 991

Effect of injured employee's proceeding for workmen's compensation benefits on running of statute of limitations governing action for personal injury arising from same incident, 71 A.L.R. 3d 849

Accrual of cause of action and tolling of limitation period of sec. 6 of the Federal Employers' Liability Act (45 USC sec. 56), 16 A.L.R. 3d 637

Time from which statute of limitations begins to run against cause of action for wrongful death, 97 A.L.R. 2d 1151

When limitation period begins to run against cause of action or claim for contracting of disease, 11 A.L.R. 2d 277

Statute of limitations under Federal Tort Claims Act (28 USCA sec. 2401(b)), 29 A.L.R. Fed. 482

## § 115 Legal periodicals

Toxic tort litigation has produced a wealth of legal research materials, most of them contained in recent publications. In addition to the legal periodical articles cited in the collateral references, the reader may find the following additional references helpful.

Barchilon, Work-Related Silicosis: A Clinical Report  
1974 Med Tr Tech Q 375 (1974)

Black & Lilienfeld, Epidemiologic Proof in Toxic Tort Litigation, 52 Fordham L Rev 732 (1984)

- Buckingham, Etiology and Aggravation in Thoracic Medicine, 21 De Paul L Rev 103 (1971)
- Comment, Asbestos in Schools and the Economic Loss Doctrine, 54 U Chi L Rev 277 (1987)
- Galiher, Defending Lung Cases Before Federal and State Boards, 48 Ins Counsel J 41 (Jan 1981)
- Gosney, Whatever Happened to Brown Lung? Compensation for Difficulty to Diagnose Occupational Diseases, 3 Ind Rel L J 102 (1979)
- Gracey, Diagnostic Pulmonary Function Testing, 1974 Med Tr Tech Q 364 (1974)
- Kirschman, Toxicology—The Exact Use of an Inexact Science, 31 Food, Drug and Cosmetic L J 55 (Aug 1970)
- Klein, Warning: The Workplace May be Hazardous to Your Health, 12 Trial 34 (Nov 1976)
- Landau, Invisible Torts Cause Cancer, 12 Trial 22 (Nov 1976)
- Marmor, Sarcoidosis, 1972 Med Tr Tech Q 450 (Jun 1972)
- Note, Exposure Theory Applied in Asbestosis Cases, 19 For the Defense 130 (Jul 1978)
- Note, Occupationally Induced Cancer Susceptibility: Regulating the Risk, 96 Harv L Rev 697 (1983)
- Page, A Generic View of Toxic Chemicals and Similar Risks, 7 Ecology L Q 207 (1978)
- Schroeder & Shapiro, Responses to Occupational Disease: The Role of Markets, Regulations, and Information, 72 Geo L Rev 1231 (1984)
- Schwartz, The Nature of Coal Miner's Lung, 1974 Med Tr Tech Q 357 (1974)
- Scroggin, Cancer-Risk Assessments, 23 Trial 49 (Oct 1987)
- Sizemore, The Chemical Conspiracy: New Perspectives in Products Liability, 12 Trial 28 (Nov 1976)
- Comment—Special Project, An Analysis of the Legal, Social, and Political Issues Raised by Asbestos Litigation, 36 Vanderbilt L Rev 573 (1983)