

SHELL OIL COMPANY, Plaintiff and Appellant,
v.
WINTERTHUR SWISS INSURANCE COMPANY et al., Defendants and Respondents;
SUN INSURANCE OFFICE, LTD., et al., Defendants, Cross-complainants and Respondents;
TRAVELERS INDEMNITY COMPANY et al., Defendants, Cross-complainants and Appellants;
OIL INSURANCE LIMITED, Cross-defendant and Appellant.
No. A045544.

Court of Appeal, First District, Division 3, California.
Jan. 21, 1993.

[Opinion certified for partial publication. ^{FN*}]

FN* Pursuant to California Rules of Court, rules 976(b) and 976.1, this opinion is certified for publication with the exception of parts 8 and 9A.

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CHIN, J.

Introduction

Shell Oil Company (Shell) raises difficult issues regarding insurance coverage for environmental pollution liability. Shell's main contentions involve interpreting standard comprehensive or commercial general liability (CGL) insurance language and California's statutory bar against insuring "wilful" acts. Shell challenges numerous rulings made during a long and complex trial.

In 1952, Shell assumed a lease of part of the Rocky Mountain Arsenal (Arsenal), a United States Army (Army) complex in Colorado. At the Arsenal Shell manufactured chemicals and pesticides and disposed of its wastes using Army facilities. Over the years, toxic wastes from both Shell and the Army contaminated soil and groundwater. The cost to remedy this pollution has been estimated at \$1.8 billion. In December 1983, the United States and the State of Colorado (Colorado) sued Shell for remediation costs and environmental damage. Shell and the United States

eventually agreed on Shell's share of the Arsenal's cleanup costs. Shell's liability for pollution at the Arsenal could reach hundreds of millions of dollars.

Shell maintained a primary layer of liability insurance and multiple layers of excess coverage. During its years at the Arsenal, the company bought approximately 800 CGL policies. Travelers Indemnity Company (Travelers) was Shell's primary CGL insurer for property damage liability until 1975, when Aetna Casualty and Surety Company (Aetna) and then Insurance [731] Company of North America (INA) issued Shell's primary coverage. A battery of insurers provided excess coverage.^{FN1}

FN1 In addition to the three primary insurers, the defendants and respondents include over 50 insurance companies that issued excess policies to Shell and a group known in this case as Froude and Companies, made up of more than 400 Lloyd's of London underwriting syndicates and nearly 200 other insurance companies that subscribed to excess policies.

While this appeal was pending, we received notices of injunctions and stays issued in connection with receivership and liquidation proceedings involving the following defendants and respondents: Dart Insurance Company Ltd.; Kraft Insurance Company Ltd., formerly Dart and Kraft Insurance Company Ltd.; El Paso Insurance Company Ltd.; Lime Street Insurance Company Ltd., formerly Louiseville Insurance Company Ltd., Mutual Reinsurance Company, Ltd.; Southern American Insurance Company; and Walbrook Insurance Company, Ltd. Accordingly, nothing in this opinion should be construed as being inconsistent with the orders staying proceedings against those defendants.

Shell identified six distinct causes of pollution at the Arsenal. Shell asserts each cause was an "occurrence" covered by its insurers, except Oil Insurance Limited (OIL), an insurer Shell owned with other oil industry members. For many reasons, the insurers denied any obligation to indemnify Shell for the Arsenal pollution. Principally, the insurers contend that Shell knew or should have known that its Arsenal operations created a substantial probability of environmental damage.

In phase I of the trial, the court interpreted the relevant policy provisions. In phase II, a jury heard extensive testimony on the Arsenal pollution and was instructed on the policy term meanings determined in phase I. The jury found against Shell; the judgment denied any coverage for the Arsenal claims.

On appeal, Shell attributes error to several elements of the phase I interpretations and the jury instructions. Foremost among Shell's issues are: (1) the rules the trial court used to interpret the insurance policies; (2) the scope of Insurance Code section 533;^{FN2} (3) whether "expected," as used in the policies and exclusions, implies an objective, reasonable person standard or a subjective test that examines the insured's state of mind; (4) whether "sudden" means only "unexpected" or instead refers to events that are abrupt; (5) whether exclusions for property in Shell's care, custody, or control were properly submitted to the jury; and (6) whether the insurers' defense that Shell did not give timely notice of the Arsenal claims should have gone to the jury. Travelers also appeals, contending that OIL must contribute to the nearly \$17 million Travelers advanced for Shell's defense against the United States and Colorado.

FN2 All further statutory references are to the Insurance Code unless otherwise indicated.

We conclude that two of Shell's arguments have merit. The insurers did not show substantial actual prejudice caused by untimely notice from Shell, [732] but sending this defense to the jury was harmless error. More importantly, we hold that the jury was given a mistaken definition of "expect" that turned not on what Shell knew, but on what Shell should have known. This error requires that we reverse the judgment in part and remand the case. However, certain policies contained pollution exclusions that preclude coverage of the Arsenal claims. Therefore, we affirm the judgment as to those policies. We also affirm denial of Travelers' contribution claim because OIL was an excess insurer and the primary insurance was not exhausted.

Facts

1. *The Arsenal*

The Arsenal covers roughly 28 square miles near Denver, Colorado. It was created in 1942 to produce chemical munitions for the Army, including nerve gas, blistering agents, and incendiary devices. The Arsenal was built in six months, using whatever was available to accommodate wartime exigencies. After the war, the Army used the Arsenal to produce, store, and demilitarize chemical warfare agents, but part of the manufacturing capacity became surplus.

The Army offered to lease the Arsenal's surplus chemical manufacturing plants and equipment. In 1947, the Julius Hyman Company (Hyman) leased part of the Arsenal to manufacture chemical pesticides in the same equipment the Army had used to make chemical weapons. The lease payments covered disposal of manufacturing wastes in the Army's waste facilities on the Arsenal.

Shell purchased Hyman in May 1952 and merged it into Shell Chemical Company about two years later. With the purchase, Shell assumed the Arsenal lease and hired almost all of Hyman's employees. Shell used the Arsenal to manufacture agricultural chemicals, such as pesticides and herbicides, and some chemical products for the Army. Shell's Arsenal operations necessarily generated a stream of toxic wastes. Shell operated its Arsenal facilities 24 hours a day, every day, for years.

2. *The Arsenal Waste System*

The Arsenal's effluent wastes drained into large, shallow evaporation basins. A chemical sewer system installed for the Army Corps of Engineers in the early 1940's carried the wastes to the basins. Shell used the Army's effluent waste disposal system until 1978.

The first evaporation basin, Basin A, was built in 1943 by scraping soil from a natural depression. Nothing covered the basin bottom to make it [733] impervious to liquids. The wastes sent to the basin were expected to evaporate or seep into the ground and bind with the soil, clay, and gravel underlying the basin. Water and salt made up the greatest portion of the waste sent to the basin.

Basin A started overflowing as the waste volume increased. To catch the overflow, a series of smaller evaporation basins, Basins C, D, and E, were built in the early 1950's. These basins were made the same way as Basin A, and relied on the same processes to handle the waste effluent. Basin C, though, was so porous that it was called "straw bottom."

In the mid-1950's, complaints of crop damage and salt contamination on farms northwest of the Arsenal led to the construction of Basin F. This basin covered 93 acres and was approximately 10 feet deep. It had a three-eighths-inch-thick asphalt liner to prevent waste effluent from seeping into the groundwater. Shell's effluent wastes were sent to Basin F from 1956 until 1978.

Wastes that Shell could not put in the chemical sewer it put in drums for disposal in shallow earthen trenches. The trenches were 300 feet long, 20 feet wide, and 10 feet deep. Shell dumped drums of contaminated materials, solid wastes, and sludges into the trenches, or poured in heated, tar-like wastes from a tank truck. When the trenches were nearly full, fuel oil was poured over them and ignited to decontaminate the chemical wastes through incineration. The trenches were then covered with a layer of soil. When air pollution problems halted open trench burnings, Shell stockpiled these wastes in thousands of covered and uncovered drums near the trenches.

3. *Pollution Problems at the Arsenal*

Shell's leasehold included three freshwater lakes near its Arsenal plants. Water to cool the chemical manufacturing equipment was drawn from and returned to the lakes. Wildlife began to die at these lakes the first year Hyman operated at the Arsenal. In 1950, Dr. Hyman himself detected his company's pesticides in the pipe that returned water to the lakes. Ducks died at the lakes until the mid-1960's; 1,200 ducks were reported killed in the spring of 1952 alone. In 1956, tests found Shell's pesticides in tissue samples from waterfowl killed at the lakes; tests in the

mid-1960's found the pesticides in snails and vegetation from the lakes. The lakes were drained, and contaminated mud was scraped from their bottoms and dumped on the ground nearby. The cooling water system was changed so that used water was not returned to the lakes.

In 1954, Shell was told that crops on a farm northwest of the Arsenal showed signs of chemical damage after irrigation with well water. It soon [734] became clear that water flowing underground from the Arsenal was the most likely cause of the problem, though well water tests found only high salt levels and did not detect the Shell chemicals. After Basin F was built, the unlined basins were not used for effluent disposal, though they were used for storm water collection.

By the mid-1960's, the Army was concerned about the high levels of toxic materials in Basin F and the environmental hazard of their exposed surface storage. The Army told Shell that alternatives to Basin F had to be developed. Throughout the early 1970's, Shell maintained that evaporation basins could be used safely and were the most economical means of disposal. Army studies in the late 1960's suggested that Basin F's liner was deteriorating, though nearby test wells did not establish that the basin was leaking into the groundwater. In May 1970, the Army told Shell that Army engineers had concluded that the chemical mix in Basin F caused the liner to deteriorate and that they assumed the basin's contents were oozing into the aquifer. The Army told Shell that use of Basin F had to end, and that Shell would have to pay a substantial portion of the costs of new waste facilities and aquifer contamination claims. However, Basin F was used for Shell's wastes until 1978, and the Army continued to use the basin until 1981 or 1982.

In 1975, after Shell and Army chemicals were discovered in water sources north of the Arsenal, the Colorado Department of Health ordered that the Army and Shell "immediately take whatever steps are necessary to clean up all sources" of the chemicals. In meetings with Shell to discuss the response to the cease and desist orders, the Army proposed a 17-year, \$345 million environmental restoration plan for the Arsenal. Soon after, the Army asked Shell to participate in the cost of cleaning up the Arsenal. Shell took the position that groundwater contamination was the Army's responsibility because waste disposal was the Army's obligation under Shell's Arsenal lease and related agreements. In 1978, the Army asked Shell to contribute to a \$50 million program to clean up Basin F; Shell again asserted that it had no such responsibility. Shell did not notify its insurance carriers of these matters at the time.

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. § 9601 et seq.), which created categories of responsible parties who would be liable for environmental damage and the costs of cleaning hazardous waste sites (42 U.S.C. § 9607). (See *United States v. Shell Oil Co.* (D.Colo. 1985) 605 F.Supp. 1064, 1068.) In October 1981, Shell learned that the Army intended to hold Shell liable for cleanup costs at the Arsenal. Between January 1982 and June 1983, Shell sent a series of notices to inform its insurers of the [735] potential liability for the Army's claims. The last notice asked the insurers for their position on Shell's insurance coverage for those claims.

In December 1983, the United States and Colorado filed environmental damage lawsuits against Shell in the United States District Court in Denver, Colorado. The United States' suit alleged that the environmental damage and pollution cleanup costs at the Arsenal amounted to \$1.8 billion. In June 1988, the United States and Shell signed a consent decree to settle the federal claims. Under this decree, Shell's liability for cleanup costs is open-ended, with Shell being responsible for 50 percent of the first \$500 million, 35 percent of the next \$200 million and 20 percent of any amount over \$700 million.

4. Shell's Insurers

Shell's size and diversity required a commensurate insurance program, which was directed by skilled professionals in Shell's insurance department, assisted by large and experienced insurance brokers. Shell bought CGL insurance from hundreds of insurers and Lloyd's of London underwriters. Insurance on this scale is purchased in layers, with the first layer of insurance referred to as primary coverage. Additional policies, referred to as excess coverage, have liability limits greater than the primary coverage and can be bought in layers. When the size of a claim exceeds the limits of liability assumed by the insurers at a given layer of coverage, the next higher coverage layer also will respond to the claim.

Shell's primary coverage was provided by Travelers (1948-1975), Aetna (1975-1978), and INA (1978-1983).

Primary CGI coverage typically includes an agreement by the insurer to defend claims against the insured until the primary coverage's limits of liability are exhausted. Shell's insurance program employed up to nine layers of excess coverage, often with several insurers participating in the same layer of coverage at the same time. Frequently, insurance policies issued for excess layers will "follow form," i.e., conform with the standardized language used by policies in lower layers. Following form gives the insured more uniform coverage and facilitates spreading risks among insurers. Most of Shell's policies followed form, so certain provisions and phrases recurred throughout Shell's policies.

5. The Trial Court Proceedings

In October 1983, shortly before the United States' suit was filed, Shell filed this declaratory relief action against insurers which sold CGL coverage to Shell from 1940 to 1983. Shell's suit involved the meaning and applicability [736] of approximately 800 insurance policies. One liability insurer Shell did not sue was OIL, which other insurers made a party by cross-complaints.

Shell sought defense and indemnification by the insurers for the claims concerning the Arsenal and another toxic waste disposal site in Fullerton, California, known as the McColl site. The Arsenal coverage disputes involve the 1952 through 1982 policy years.

The parties agreed to trial in phases. The phase I court trial began on November 4, 1987, and resolved the interpretation of the policies' terms. The phase I statement of decision became the foundation for jury instructions in phase II.

The phase II jury trial began on August 30, 1988. In that phase, the trial court's interpretation of the policy provisions was applied to the facts of the Arsenal claims.^{FN3} For Shell's coverage claims and the insurers' defenses, the parties presented extensive evidence on the Arsenal's history and pollution. The jury received the 86 pages of instructions both by videotape and a written copy. The court gave the jury a general verdict form that required the jury to decide, for each of the 31 years involved, whether Shell had any coverage for pollution damage at the Arsenal.

FN3 During phase II, the trial court severed the McColl site coverage claims for a subsequent trial.

After 60 days of trial, and nearly 6 days of deliberations, the jury returned its verdict against Shell for all 31 years. The final judgment declaring that Shell had no coverage for the Arsenal claims was entered on January 27, 1989; Shell's motions for a new trial and for judgment notwithstanding the verdict were denied on March 23, 1989. This appeal followed.

Discussion

1. Rules for Interpreting Insurance Contracts

Shell contends the trial court used a "renegade interpretative system" to construe the insurance contracts. This contention has no merit for the substantive issues Shell raises on appeal. The trial court's method for interpreting the pertinent insurance contract provisions was substantially consistent with the rules later endorsed in *AIU Ins. Co. v. Superior Court* (1990) 51 Cal.3d 807 [274 Cal.Rptr. 820, 799 P.2d 1253] (hereafter *AIU*).

The analysis in *AIU* began with the fundamental rule that interpretation of an insurance contract, like any contract, is governed by the mutual [737] intent of the parties at the time they form the contract. (*AIU, supra*, 51 Cal.3d at pp. 821-822.) The parties' intent is found if possible, solely in the contract's written provisions. (*Id.*, at p. 822.) "The 'clear and explicit' meaning of these provisions, interpreted in their 'ordinary and popular sense,' unless 'used by the parties in a technical sense or a special meaning is given to them by usage' [citation], controls judicial interpretation. [Citation.]" (*Ibid.*) Thus, if a layperson would give the contract language an unambiguous meaning, we apply that meaning. (*Ibid.*) Only these basic principles are needed to interpret contract language that is clear and unambiguous.

The rules for recognizing ambiguity are also straightforward. Ambiguity exists when an insurance policy provision is susceptible to two or more constructions that are reasonable and not based on strained interpretations.

(*Producers Dairy Delivery Co. v. Sentry Ins. Co.* (1986) 41 Cal.3d 903, 912 [226 Cal.Rptr. 558, 718 P.2d 920].) Contract language interpretation involves considering the whole instrument and the circumstances of the case; ambiguity is not an abstract question. (*Id.*, at p. 916, fn. 7.) “A word generally has several meanings, even in the dictionary. You have to consider the sentence in which it stands to decide which of those meanings it bears in the particular case, and very likely will see that it there has a shade of significance more refined than any given in the wordbook.” (Holmes, *The Theory of Legal Interpretation* (1899) 12 Harv.L.Rev. 417.)

When particular policy language is ambiguous, it is interpreted in the sense the insurer believed the insured understood it at the time of formation. (*AIU, supra*, 51 Cal.3d at p. 822.) If that principle cannot remove an ambiguity, as when there is no basis for a belief that the insured understood a term in a specific sense, then the ambiguity is construed against the party who caused the uncertainty to exist. (*Id.*, at pp. 822-823; Civ. Code, § 1654.)

Because insurance policy language usually is the insurer's, with no meaningful opportunity for insureds to bargain for modifications, courts normally resolve policy ambiguities in favor of finding coverage. (*AIU, supra*, 51 Cal.3d at p. 822.) For the same reasons, courts generally interpret coverage clauses broadly and interpret exclusions narrowly to protect the insured's objectively reasonable expectations. (*Ibid.*)

Different rules apply when the insured “does not suffer from lack of legal sophistication or a relative lack of bargaining power, and where it is clear that an insurance policy was actually negotiated and jointly drafted” (*AIU, supra*, 51 Cal.3d at p. 823; see *Garcia v. Truck Ins. Exchange* (1984) 36 Cal.3d 426, 438 [204 Cal.Rptr. 435, 682 P.2d 1100].) Under such [738] circumstances, ambiguities are not necessarily construed in favor of coverage. (*AIU, supra*, at p. 823; *Garcia, supra*, at p. 438.) However, this departure from the norm requires evidence that the provision in question was jointly drafted; merely showing that policy terms were negotiated, and that the insured had legal sophistication and substantial relative bargaining power, is not enough. (*AIU, supra*, at p. 823; *Garcia, supra*, at p. 438.)

In *AIU*, the insured was a large corporation with both substantial bargaining power and legal sophistication. (*AIU, supra*, 51 Cal.3d at p. 823.) The corporation's subsidiary drafted CGL policies identical to those involved in that case. (*Ibid.*) There was evidence that the policies were written on a line-by-line basis through continuing negotiation with the insurer. (*Id.*, at p. 823, fn. 9.) Nevertheless, the court held the insurers responsible for the ambiguities in that case because there was no evidence those particular ambiguous provisions were actually negotiated and jointly drafted. (*Id.*, at pp. 823-824.)

The court said that policy terms would be construed in the broad sense understood by laypersons absent evidence that the parties intended narrower technical meanings and crafted policy language specially for that purpose. (*AIU, supra*, 51 Cal.3d at p. 823.) In *AIU*, the policy terms in question were taken verbatim from standard CGL policies used by the insurance industry. (*Id.*, at pp. 815, 823-824, fn. 9 and accompanying text.) Further, there was no evidence the insurer had cause to believe the insured originally understood the policy language in any technical or restrictive manner. (*Id.*, at p. 823; see Civ. Code, § 1649.) Therefore, the court construed the ambiguities in favor of coverage. (*AIU, supra*, at p. 823.)

In all respects material to this appeal, the trial court employed the insurance interpretation rules the Supreme Court endorsed in *AIU*. The trial court tried to determine the parties' mutual intent at the time the contracts were formed and used the contracts' language as the primary evidence of that intent. The trial court applied its understanding of the ordinary and popular meanings of the words used in the contracts. It used specialized meanings only when evidence showed a word was intended in a technical sense or was subject to a particular trade usage.

Shell argues the trial court failed to construe ambiguities against the insurers and improperly applied the “sophisticated insured” exception to standardized language common to many CGL policies. Whatever merit this argument may have for other interpretative rulings, it has none for the issues Shell raises on appeal. Each policy interpretation Shell contends was error was decided on unambiguous language or, in one instance, on a plain and [739] ordinary meaning that conformed to the parties' understanding and intention. As we discuss in the following sections, none of the interpretative issues raised by Shell require us to construe an ambiguity against the insurers.

2. Section 533 and “Wilful” Acts

Section 533 states: “An insurer is not liable for a loss caused by the *wilful act* of the insured; but [the insurer] is not exonerated by the negligence of the insured, or of the insured’s agents or others.” (§ 533, italics added.) The trial court instructed the jury that under all of Shell’s policies, property damage must be neither expected nor intended. Before 1975, Shell’s primary policies did not explicitly require that property damage be unintended and unexpected; nor did the primary policies contain an intentional acts exclusion before 1966. Thus, Shell claims the instructions improperly subjected all policies to an exclusion expressly stated only in later policies.

Shell takes the position that section 533 provides the controlling concept of fortuity for all of Shell’s policies and the only exclusion for intentionally caused damage under the policies issued before 1966. Shell contends it must be indemnified for property damage liability, regardless of whether the damage was caused negligently or recklessly, unless it subjectively intended to cause the damage or intentionally committed a wrongful, inherently harmful act. (Citing *J. C. Penney Casualty Ins. Co. v. M. K.* (1991) 52 Cal.3d 1009 [278 Cal.Rptr. 64, 804 P.2d 689] [hereafter *Penney*].)

The narrow question *Penney* decided was that, as a matter of law, section 533 excludes liability coverage for sexual molestation of a child without proof that the insured subjectively intended harm, because molesting a child is always intentional, wrongful, and harmful. (*Penney, supra*, 52 Cal.3d at pp. 1025, 1028.) In reaching this holding, the court discussed the public policy and legislative intent evinced by section 533 (*Penney, supra*, at pp. 1020-1025) and clarified an earlier decision that appeared to require proof of a “ ‘preconceived design to inflict injury.’ [Citation.]” (*Id.*, at p. 1021.)

Section 533 is an implied exclusionary clause in every insurance contract. (*Penney, supra*, 52 Cal.3d at p. 1019; *Evans v. Pacific Indemnity Co.* (1975) 49 Cal.App.3d 537, 540 [122 Cal.Rptr. 680].) The statute reflects a fundamental public policy of denying coverage for willful wrongs and discouraging willful torts. (*Penney, supra*, at pp. 1019-1021, fn. 8 and accompanying text.) As a statutory exclusion, section 533 is not subject to the rule of strict construction against an insurer; instead, we construe it according to the Legislature’s intent, for which we refer first to the words of the statute. (*Penny, supra*, at p. 1020, fn. 9 and accompanying text.) [740]

The first clause of section 533 precludes indemnity for a “wilful act,” while the second clause qualifies the first by effectively eliminating “negligence” from the concept of “wilful act.” (§ 533.) This language has remained unchanged since 1873. (*Evans v. Pacific Indemnity Co., supra*, 49 Cal.App.3d at p. 541.) The Supreme Court discussed the origins of the section’s language in *McKenzie v. Scottish U. & N. Ins. Co.* (1896) 112 Cal. 548 [44 P. 922]. The court noted that insurers traditionally were liable for their insureds’ ordinary negligence, but that other forms of negligence could release the insurer. (*Id.*, at p. 557.) The court said: “To set at rest questions involving the different degrees of negligence, ... we may reasonably suppose was the object of the framers [¶] Under section [533] the nice distinctions often made necessary are dispensed with, and the general proposition is established that no form of negligence ... avoids the policy, unless it amounts to a wilful act on the part of the insured.” (*Id.*, at pp. 557-558, discussing Civ. Code, former § 2629, which became § 533.)

Thus, a “wilful act” under section 533 means something more than intentionally doing an act constituting ordinary negligence. (*Penney, supra*, 52 Cal.3d at p. 1021.) Under *McKenzie*, no form of negligence amounting to less than section 533’s “wilful act” precludes coverage. (*Penney, supra*, at p. 1021.) “In short, section 533 does not preclude coverage for acts that are negligent or reckless.” (*Penney, supra*, at p. 1021.) However, excluding negligence and recklessness does not alone establish the meaning of “wilful act” under section 533.

Before the decision in *Penney*, some courts interpreted *Clemmer v. Hartford Insurance Co.* (1978) 22 Cal.3d 865, 886-887 [151 Cal.Rptr. 285, 587 P.2d 1098], as meaning that section 533 does not bar coverage for acts that are intentional or willful under traditional tort principles unless the acts are done with a preconceived design to injure. (See, e.g., *State Farm Fire & Casualty Co. v. Eddy* (1990) 218 Cal.App.3d 958, 969 [267 Cal.Rptr. 379]; *Allstate Ins. Co. v. Overton* (1984) 160 Cal.App.3d 843, 849 [206 Cal.Rptr. 823].) However, *Penney* explained that when properly understood, *Clemmer* and the cases on which it relied do not support the view that coverage is barred only when the insured acted with a subjective intent to injure. (*Penney, supra*, 52 Cal.3d at pp. 1021-1025; *Fire Ins. Exchange v. Altieri* (1991) 235 Cal.App.3d 1352, 1358 [1 Cal.Rptr.2d 360].) The existence of a preconceived design to injure is relevant only when mental capacity is an issue or the insured’s intent or motive might justify an otherwise

wrongful act. (*Penney, supra*, at pp. 1021-1025. *B & E Convalescent Center v. State Compensation Ins. Fund* (1992) 8 Cal.App.4th 78, 96-97 [9 Cal.Rptr.2d 894]; *Fire Ins. Exchange, supra*, at p. 1358.) Thus, section 533 precludes indemnification, whether or not the insured subjectively intended harm, if the [741] insured seeks coverage for an intentional, wrongful act that is inherently and necessarily harmful. (*Penney, supra*, at p. 1025.) Although *Penney* established that sexual molestation of a child is a “wilful act” under section 533, the decision does not resolve our question: is any state of mind other than a subjective intent to injure so culpable as to render deliberate actions uninsurable?

We are guided by the Supreme Court's interpretation of similar language in the Labor and Insurance Codes concerning workers' compensation awards. Labor Code section 4553 grants additional compensation to an employee injured by an employer's “serious and willful misconduct” Likewise, section 11661 prohibits indemnification for the additional compensation recoverable for “serious and willful misconduct” All three statutes express the same public policy and would refer to the same conduct except that section 533 does not apply to workers' compensation insurance. (*Azevedo v. Abel* (1968) 264 Cal.App.2d 451, 458 [70 Cal.Rptr. 710].)

In *Mercer-Fraser Co. v. Industrial Acc. Com.* (1953) 40 Cal.2d 102 [251 P.2d 955], the Supreme Court examined the Legislature's intent in using the phrase “serious and willful misconduct” in Labor Code section 4553. (*Mercer-Fraser, supra*, at p. 116.) The court reviewed common law and statutory interpretations of “willful misconduct,” “willful and wanton negligence,” “wanton and reckless misconduct,” and “gross negligence.” (*Id.*, at pp. 116-120, internal quotation marks omitted.) It concluded that “serious and wilful misconduct is basically the antithesis of negligence, and that the two types of behavior are mutually exclusive; an act which is merely negligent and consequently devoid of either an intention to do harm or of knowledge or appreciation of the fact that danger is likely to result therefrom cannot at the same time constitute wilful misconduct; conversely an act deliberately done for the express purpose of injuring another, or intentionally performed either with knowledge that serious injury is a probable result or with a positive, active, wanton, reckless and absolute disregard of its possibly damaging consequences, cannot properly be classed as the less culpable conduct which is termed negligence. It follows that a finding of serious and wilful misconduct cannot be sustained upon proof of mere negligence of any degree.” (*Id.*, at p. 120.)

Defined in these terms, “serious and willful misconduct” meets the requirement that a “wilful act” under section 533 cannot be any form of negligence. (See *McKenzie v. Scottish U. & N. Ins. Co., supra*, 112 Cal. at p. 558.) Logically and semantically, there is no reason to suppose that “serious and willful misconduct” connotes a less culpable state of mind than “wilful act.” [742]

Nevertheless, it is now clear that section 533 does not prohibit coverage for reckless conduct. (*Penney, supra*, 52 Cal.3d at p. 1021.) Also, the Supreme Court has said in dictum that some forms of conduct amounting to a conscious disregard of others' safety might not constitute an uninsurable “wilful act” under section 533. (See *Peterson v. Superior Court* (1982) 31 Cal.3d 147, 158-159 [181 Cal.Rptr. 784, 642 P.2d 1305].) As a practical matter, the distinction between reckless conduct and “positive, active, wanton, reckless and absolute disregard of [an act's] possibly damaging consequences” (*Mercer-Fraser Co. v. Industrial Acc. Com., supra*, 40 Cal.2d at p. 120) is too fine to be significant. (See Prosser & Keeton, *The Law of Torts* (5th ed. 1984) § 34, pp. 212- 214.) After removing any connotation of recklessness, a “wilful act” under section 533 must mean an act deliberately done for the express purpose of causing damage or intentionally performed with knowledge that damage is highly probable or substantially certain to result. (Cf. *Hawaiian Pineapple Co. v. Ind. Acc. Com.* (1953) 40 Cal.2d 656, 662- 663 [255 P.2d 431] [regarding Lab. Code, § 4553]; *Mercer-Fraser Co., supra*, at pp. 115-118.) As we discuss in the next section of this opinion, that degree of foreknowledge or belief that a result will occur means the result is expected.

This approach is supported by the Restatement Second of Torts' definition of “intent” and distinction between “intentional misconduct” and “recklessness.” The Restatement uses “intent” to denote that an act's consequences are desired or believed to be substantially certain to result. (Rest.2d Torts, § 8A.) “As the probability that the consequences will follow decreases, and becomes less than substantial certainty, the actor's conduct loses the character of intent, and becomes mere recklessness” (Rest.2d Torts, *supra*, § 8A, com. b.) Recklessness, in the Restatement's view, does not necessarily require actual foreknowledge of the harmful consequences of particular acts; it is enough that a reasonable person would have recognized the aggravated risk. (Rest.2d Torts, *supra*, § 500, com. a.) A merely reckless person lacks subjective awareness of the near certainty of harm. “While an act to be reckless must be intended by the actor, the actor does not intend to cause the harm which results from it. It is enough

that he realizes or, from facts which he knows, should realize that there is a strong probability that harm may result, *even though he hopes or even expects that his conduct will prove harmless.*” (Rest.2d Torts, *supra*, § 500, com. f, italics added.) Where the actor knows that the harmful consequences are substantially certain to result, and proceeds with the act anyway, the law treats the actor as if the result was desired. (Rest.2d Torts, *supra*, § 8A, com. b.)

We conclude that section 533 prohibits indemnification of more than just intentional acts that are subjectively desired to cause harm and acts that are [743] intentional, wrongful, and necessarily harmful regardless of subjective intent. A “wilful act” under section 533 must also include a deliberate, liability-producing act that the individual, before acting, expected to cause harm. Conduct for which the law imposes liability, and which is expected or intended to result in damage, must be considered wrongful and willful. Therefore, section 533 precludes indemnification for liability arising from deliberate conduct that the insured expected or intended to cause damage. Accordingly, the trial court did not err by instructing the jury that for a liability policy to cover property damage, the insured must neither expect nor intend the damage.

3. The Plain Meaning of “Expected or Intended”

The central issue in this appeal is the meaning of the word “expect” as used in policy language that bars coverage for damage that is “expected or intended.” Our conclusion on section 533’s prohibitions emphasizes the importance of a proper and consistent interpretation of “expect.” Shell and amicus curiae Aerojet-General Corporation (Aerojet) assert that “expect” requires a subjective standard that looks to the insured’s actual knowledge and state of mind. The insurers argue that “expect” imposes an objective standard that depends on the knowledge and state of mind a similarly situated reasonable person would possess. In support of their position, the insurers cite numerous authorities from other jurisdictions.

The trial court accepted the insurers’ argument. Jury instruction No. 42 said, in part: “... Injury is intended and expected (and hence, there is no coverage) if Shell possessed the intent to damage the property of another, or if Shell intentionally committed an act wherein it should have reasonably been known by Shell that there was a high degree of certainty that damage to the property of another would result from that act. ...” Jury instruction No. 43 said, in part: “ ‘Expected’ is defined as to look forward to the probable occurrence or appearance of; to consider likely or certain; to consider reasonable or due.’ As contained in the occurrence definitions and in the pollution exclusions, the exclusionary word ‘expected’ denotes that the actor knew or should have known that there was a substantial probability that certain consequences would result from his or her acts or omissions. ...”

The leading case for this objective view of “expected” is *City of Carter Lake v. Aetna Cas. and Sur.* (8th Cir. 1979) 604 F.2d 1052. That court rejected an insurer’s argument that a result is expected when it is just reasonably foreseeable. (*Id.*, at p. 1058.) The court said an insured reasonably expects a CGL policy to cover some negligent acts, but it does not [744] follow that all negligent acts must be covered. (*Ibid.*) The court then stated: “For the purposes of an exclusionary clause in an insurance policy the word ‘expected’ denotes that the actor knew or should have known that there was a substantial probability⁴ that certain consequences will result from his actions. If the insured knew or should have known that there was a substantial probability that certain results would follow his acts or omissions then there has not been an occurrence or accident as defined in this type of policy when such results actually come to pass.” (*Id.*, at pp. 1058-1059.) Footnote 4 explained: “The difference between ‘reasonably foreseeable’ and ‘substantial probability’ is the degree of expectability. ... The indications must be strong enough to alert a reasonably prudent man not only to the possibility of the results occurring but the indications also must be sufficient to forewarn him that the results are highly likely to occur.” (*Id.*, at p. 1059, fn. 4.)

City of Carter Lake offered no reason or authority for injecting the objective “should have known” test into a definition of “expected.” Likewise, several courts have adopted the same or a similar interpretation without discussing their rationale for an objective test. (See, e.g., *Auto-Owners Ins. Co. v. Jensen* (8th Cir. 1981) 667 F.2d 714, 719- 720 [interpreting Minn. law]; *American Mut. Liability Ins. v. Neville Chemical* (W.D.Pa. 1987) 650 F.Supp. 929, 932; *Weber v. IMT Ins. Co.* (Iowa 1990) 462 N.W.2d 283, 287-289; *Summit Assoc. v. Liberty Mut. Fire Ins.* (1988) 229 N.J.Super. 56 [550 A.2d 1235, 1239].)

Some courts adopted an objective test out of concern that a subjective test gives insureds too much of an advantage in coverage disputes. As one court explained: “Probing one’s state of mind is an elusive task at best. Supplanting an

objective standard with a subjective standard for determining whether the act or conduct of an insured is 'intentional' or 'expected or intended' for purposes of assessing coverage would emasculate apposite policy provisions by making it impossible to preclude coverage for intentional acts or conduct absent admissions by insureds of a specific intent to harm or injure. Human nature augers against any viable expectation of such admissions." (*Truck Ins. Exchange v. Pickering* (Mo.Ct.App. 1982) 642 S.W.2d 113, 116; see also *Western Cas. & Sur. Co. v. Waisanen* (D.S.D. 1987) 653 F.Supp. 825, 830 ["[C]ourts have been reluctant to adopt a totally subjective test which would place complete control of the coverage question in the hands of the insured."].)

We believe these concerns are misplaced. Intent and knowledge can be proved without an insured's admission; circumstantial evidence can establish them in civil cases as surely as in criminal prosecutions. (See 1 Witkin, Cal. Evidence (3d ed. 1986) Circumstantial Evidence, § § 401- 402, 408, pp. [745] 374-376, 381-382.) Claims of ignorance are unlikely to succeed when circumstantial evidence shows the insured expected damage or avoided confirming such a belief in hopes of denying awareness of the risk.

The other rationale offered for an objective test is an attempt to differentiate the concepts of "intend" and "expect." One court stated: "[N]o damage is done to plain English or to the reasonable expectations of the insured to find there is a difference between 'expect' and 'intend' and to find this difference is simply a difference in the degree of probability. 'Intend' means the insured desires to cause the consequences of his act or believes the consequences are substantially certain to result. 'Expect' means the insured realized or should have realized there was a strong probability the consequences in question would result from his acts. [Citations.]" (*Farm Bureau Town & Country Ins. v. Turnbo* (Mo.Ct.App. 1987) 740 S.W.2d 232, 236; see also *Steelman v. Holford* (Mo.Ct.App. 1989) 765 S.W.2d 372, 377.)

However, this extended definition of "expect" comes about only if "intend" is given the specialized meaning used in the law, as the court did in *Farm Bureau*. When "intend" is used in tort law, it acquires an extra meaning indistinguishable from a layperson's sense of "expect." (See Rest.2d Torts, *supra*, § 8A.) If "intend" is given its ordinary meaning of "[t]o have in mind some purpose or design" (American Heritage Dict. (1981) p. 682, col. 2), then "expect" can have its ordinary meaning, which does not include "intend's" sense of results desired, purposefully sought, or brought about by design.

More recent CGL policies use "expect" in a context that makes applying an objective, "should have known" standard awkward. Policies that base coverage on an "occurrence" commonly define the term as "an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended *from the standpoint of the insured.*" (Italics added.) The insurance industry apparently adopted the phrase, "from the standpoint of the insured," to clarify that whether an event is an "accident" is evaluated from the insured's perspective, not the injured victim's, as some courts had decided. (*Patrons-Oxford Mut. Ins. Co. v. Dodge* (Me. 1981) 426 A.2d 888, 890-891.) Regardless of the motive for including the phrase, it focuses the inquiry on *the insured's* actual, subjective expectation, not the expectation of a hypothetical reasonable person. (See *Brown Foundation v. St. Paul Ins. Co.* (Ky. 1991) 814 S.W.2d 273, 279.) Even if the reference to "the standpoint of the insured" was meant to invoke an objective test, at best the phrase is ambiguous-triggering the usual consequences for ambiguous insurance policy language. Thus, this type of "occurrence" definition compels a subjective expectation test. [746]

Judicial interpretation is controlled by the clear and explicit meanings of words in their ordinary and popular senses, unless the parties adopted a special or technical usage. (*AIU, supra*, 51 Cal.3d at p. 822.) Even if the reasoning of the insurers' authorities was compelling, this rule would preclude endorsing an objective, "should have known" meaning for "expected." At trial, the parties offered no evidence that "expected" and "intended" had other than their plain meanings in Shell's policies. Therefore, we interpret these words in their ordinary and popular sense.

Leading dictionaries do not have definitions of "expect" that are appropriate in the context of Shell's policies and contain any connotation of "should have known." FN4 If a person "should have known" there was a substantial likelihood an event would occur, then the person "should have expected" it. The plain meaning of "expected" does not include "should have known." Rather, the word comprehends actual belief in the probability of a future event.

FN4 Bearing in mind that the context is formal contract language as used in the second half of the 20th century, concerning the absence of insurance coverage for "expected or intended" property damage, the

following dictionary definitions can reasonably be assigned to “expect”: “4. To look forward to (an event), regard (it) as about to happen; to anticipate the occurrence of (something whether good or evil).” (5 Oxford English Dict. (2d ed. 1989) p. 556, col. 1.) “1. To look forward to the probable occurrence or appearance of. 2. To consider likely or certain.” (American Heritage Dict., *supra*, p. 461, col. 2.) “1. to look forward to; regard as likely to happen; anticipate the occurrence or the coming of” (Random House Dict. (1973) p. 501, col. 1.) “2: to look forward: look with anticipation ... 3: ... b: to look forward to; *specif*: to anticipate the occurrence of ... 4a: to consider probable or certain” (Webster's Third New Internat. Dict. (1970) p. 799, col. 1.)

We conclude that the ordinary and popular meaning of “expected,” in the context of Shell's CGL policies, is not ambiguous. Our conclusion is reinforced by the sense three dictionaries attribute to “expect” in contrast with its synonyms. “To *expect* is to look forward to the occurrence of something with little reservation as to its likelihood.” (American Heritage Dict., *supra*, p. 461, col. 2.) “Expect implies confidently believing, usually for good reasons, that an event will occur” (Random House Dict., *supra*, p. 501, col. 1.) “Expect usu[ally] implies a high degree of certainty to the point of making preparations or anticipating particular things [or] actions” (Webster's Third New Internat. Dict., *supra*, p. 799, col. 1.)

The ordinary and popular meaning of “expect” connotes subjective knowledge of or belief in an event's probability. We see no material difference if the degree of that probability is expressed as substantially certain, practically certain, highly likely, or highly probable; the terms are minor shadings of the same idea. All convey the ordinary and popular sense that we do not think of events we “expect” as absolute certainties. Accordingly, we cannot adopt the *747 more restrictive interpretation of some courts that “the phrase 'neither expected nor intended' should be read only to exclude those damages that the insured knew would flow directly and immediately from its intentional act.” (*Hecla Min. Co. v. New Hampshire Ins. Co.* (Colo. 1991) 811 P.2d 1083, 1088; see *City of Johnstown, N.Y. v. Bankers Standard Ins.* (2d Cir. 1989) 877 F.2d 1146, 1150; cf. *State Farm Fire & Casualty Company v. Muth* (1973) 190 Neb. 272 [207 N.W.2d 364, 366].) By suggesting that the foreknowledge must be detailed and absolutely certain, such interpretations unacceptably change the plain meaning of a plain word.

Our conclusion on the meaning of “expected or intended” is not unique. *Patrons-Oxford Mut. Ins. Co. v. Dodge*, *supra*, 426 A.2d at page 892, adopted essentially the same interpretation, albeit without examining the words' ordinary and popular meanings. The court decided that damage “... which is either expected or intended from the standpoint of the Insured” refers only to damage “that the insured in fact *subjectively wanted* ('intended') to be a result of his conduct or in fact *subjectively foresaw as practically certain* ('expected') to be a result of his conduct.” (*Ibid.*, original italics.) Similarly, *Quincy Mut. Fire Ins. Co. v. Abernathy* (1984) 393 Mass. 81 [469 N.E.2d 797, 800], held that “expected” requires a showing that the insured “knew to a substantial certainty” that damage would ensue. “Had the insurer intended a different result, it could have used more appropriate language in the exclusion clause.” (*Ibid.*)

Both courts reached their conclusions because they believed the phrase was ambiguous and construed it to favor coverage. (*Patrons-Oxford Mut. Ins. Co. v. Dodge*, *supra*, 426 A.2d at pp. 890-891; *Quincy Mut. Fire Ins. Co. v. Abernathy*, *supra*, 469 N.E.2d at pp. 799-800.) We do not share that view. Often courts have difficulty with the phrase because they apply the specialized legal meaning of “intend.” This leaves “expect” with little to do. When we interpret both words in their ordinary and popular sense, the context renders their meaning clear and explicit. Even if we thought the phrase ambiguous, though, we would still arrive at the same conclusion.

“Expected or intended” is standard language in many CGL policies. The insurers do not suggest that joint drafting produced the “occurrence” definitions or “expected's” use in the pollution exclusions. Nor do they claim a basis for believing Shell understood the words in a particular way. Therefore, if ambiguity existed, we would adopt a reasonable construction favoring coverage (*AIU*, *supra*, 51 Cal.3d at pp. 823-824), which would be the construction we have endorsed.

For these reasons, we hold that the jury instructions defining “expect” contained error. The instructions misdirected the inquiry to what Shell [748] should have known instead of limiting consideration to what Shell actually knew or believed. Thus, they deviated from the ordinary, popular meaning of “expect” and the standard required by section 533. By testing what Shell should have known, the instructions invited denial of coverage for conduct within the realm of negligence, notwithstanding their gloss on the probabilities that reasonably should have been known. The

appropriate test for “expected” damage is whether the insured knew or believed its conduct was substantially certain or highly likely to result in that kind of damage.

4. “Occurrences” and “Accidents”

Shell claims the trial court misapplied the fortuity concept in the policies' “occurrence” definitions and misinterpreted the meaning of “accident.” As a result, some policies would not cover unintended and unexpected damage caused by intended acts. “Accident” is an integral part of the policies' “occurrence” definitions, and so we examine the role and meaning of “accident” in that context.

Before 1975, Shell's primary policies used a disjunctive to define an “occurrence” as “(1) an *accident*, or [¶] (2) continuous or repeated exposure to conditions which results in ... property damage during the policy period.” (Italics added.) In contrast, later policies typically defined an occurrence as “an *accident*, including continuous or repeated exposure to conditions, which result in ... property damage neither expected nor intended from the standpoint of the insured.” (Italics added.)

The trial court instructed the jury that policies defining “occurrence” as “an accident, or [¶] ... exposure ...” required only that the resulting damage be unexpected or unintended. For policies defining “occurrence” as “an accident, including ... exposure ...,” the trial court told the jury “that both the event or events causing the damage and the damage itself [must] be unexpected and unintended.”

Shell argues against this distinction between the two “occurrence” definitions. First, Shell contends that the minor change from “accident, or” to “accident, including” should not create the significant change in coverage reflected in the jury instruction because “including” normally is a term of enlargement and not limitation. Second, Shell argues that section 533 requires coverage for intentional conduct that results in unexpected or unintended damage because it is not just an exclusion, but also a mandate of coverage for all negligence, regardless of contrary policy language. Third, Shell asserts that “accident” means more than unexpected and unintended causes of damage; the term also includes unexpected and unintended consequences of intentional acts. [749]

Shell's first argument is correct in one respect; “including” is a word of enlargement. However, here it enlarges the meaning of “accident” to add exposure to damaging conditions; gradual events can then be “accidents” and “occurrences” under the policies. This change broadened the scope of covered events because some courts required that “accidents” be “sudden.” (See, e.g., *Geddes & Smith, Inc. v. St. Paul Mercury Indemnity Co.* (1959) 51 Cal.2d 558, 563-564 [334 P.2d 881] (hereafter *Geddes*.) The more recent “occurrence” definitions include gradual events within the concept of “accident,” but these policies nevertheless maintain a basic requirement that such events be accidents. Under the older policies an “occurrence” was an accident *or* exposure to damaging conditions, a definition that allowed coverage for damaging exposures that were not accidents. Therefore, as a matter of syntax and semantics, the trial court's distinction between the two definitions of “occurrence” was correct.

Shell's second argument relies on the second clause of section 533. Shell asserts that just as the first clause bars coverage for willful acts, the second clause requires coverage for any form of negligence. Shell contends that both clauses are mandatory and cannot be overridden by contrary policy terms.

The argument misconceives the basic nature of the statute. “Section 533 is 'an implied *exclusionary clause* which by statute is to be read into all insurance policies.' [Citations.]” (*Penney, supra*, 52 Cal.3d at p. 1019, italics added.) The section reflects a fundamental public policy of denying coverage for willful wrongs; thus, an insurer cannot cover acts excluded by the section. (*Id.*, at pp. 1019-1020, fn. 8.) The second clause of section 533 simply excludes any form of negligence from the category of willful acts. Shell provides no authority for the argument that section 533 requires nonwillful acts to be covered and vitiates any contrary policy language. To the contrary, insurers have the right to limit policy coverage in plain and understandable language and can limit the character and extent of the risk assumed. (*Continental Cas. Co. v. Phoenix Constr. Co.* (1956) 46 Cal.2d 423, 432 [296 P.2d 801, 57 A.L.R.2d 914]; *Masonite Corp. v. Great American Surplus Lines Ins. Co.* (1990) 224 Cal.App.3d 912, 919 [274 Cal.Rptr. 206].) Thus, an insurer may place more restrictions on the liability it assumes than those set by section 533. (*American Guar. & Liability v. Vista Medical Supply* (N.D.Cal. 1988) 699 F.Supp. 787, 790 (opn. of Schwarzer, J.).)

Shell's third argument is based on a discussion of the meaning of "accident" in *Geddes, supra*, 51 Cal.2d at pages 563- 564. ^{FN5} Shell contends that the court's reference to an "accident" as an undesigned happening or [750] "consequence" means that any unexpected or unintended result is an "accident," even if caused by intended conduct.

FN5 The court stated, in the language relied on by Shell, "No all-inclusive definition of the word accident can be given. It has been defined as a casualty-something out of the usual course of events and which happens suddenly and unexpectedly and without design of the person injured. [Citations.] It includes any event which takes place without the foresight or expectation of the person acted upon or affected by the event. [Citations.] Accident, as a source and cause of damage to property, within the terms of an accident policy, is an unexpected, unforeseen, or undesigned happening or consequence from either a known or an unknown cause. [Citation.]" (*Geddes, supra*, 51 Cal.2d at pp. 563-564, original italics and internal quotation marks omitted.)

Although *Geddes* referred to an "accident" as a "consequence," the reference played no part in the reasoning of the decision. Instead, the court concluded that the door failures involved in that case were accidents because they were unexpected, undesigned, and sudden. (*Geddes, supra*, 51 Cal.2d at p. 564.) The property damage that resulted from the door failures was therefore "caused by accident," as the policy language required. (*Id.*, at p. 562.)

For the same reason, the logic and grammar of the post-1974 policies preclude our interpreting "accident" as meaning a "consequence." Those policies, which define an "occurrence" as "an accident, including ...," cover property damage "caused by" an "occurrence." Therefore, an "occurrence" is a causal event, defined as an "accident." In this context, an "accident" cannot mean unintended damage because the causal event also would be the result. Logically, a consequence cannot cause itself.

This court interpreted a similar "occurrence" definition in *Commercial Union Ins. Co. v. Superior Court* (1987) 196 Cal.App.3d 1205 [242 Cal.Rptr. 454]. In that case, the insured sought coverage when an employee sued after being fired. The policy covered damages "caused by an occurrence," defined as "an accident, including, continuous or repeated exposure to conditions, which results in bodily injury or property damage. This injury or damage must be neither expected nor intended by [the insured]." (*Id.*, at pp. 1206-1207, italics omitted.) The insured conceded that he intended the employee's termination, but argued for coverage because he did not intend or expect the employee's severe emotional distress. We found that under this "occurrence" definition, the term "accident" does not apply to an act's consequences, but instead applies to the act itself. (*Id.*, at p. 1208.) When "occurrence" is defined as an "accident," we concluded that injury caused by expected or intended actions is not covered (*Id.*, at p. 1209; see also *Loyola Marymount University v. Hartford Accident & Indemnity Co.* (1990) 219 Cal.App.3d 1217, 1224-1225 [271 Cal.Rptr. 528]; *Merced Mutual Ins. Co. v. Mendez* (1989) 213 Cal.App.3d 41, 48-50 [261 Cal.Rptr. 273]; [751] *Dyer v. Northbrook Property & Casualty Ins. Co.* (1989) 210 Cal.App.3d 1540, 1547-1549 [259 Cal.Rptr. 298].) The trial court correctly distinguished the effect of the two different "occurrence" definitions.

However, we should not be misunderstood as suggesting that an expected or intended act at any point in the causal chain of events means that any resulting damage was not caused by accident. Instead, we hold only that where damage is the direct and immediate result of an intended or expected event, there is no accident.

5. "Sudden," as Used to Define "Accident" and as Used in the Pollution Exclusions

Shell contends that the trial court erred by including "sudden" in its definition of "accident" and also by defining "sudden" so that gradual events were not covered. Shell is joined by amicus curiae Aerojet on the latter contention.

A. Accidents Are "Sudden"

Shell claims that by including "sudden" in the definition of "accident," the jury instructions limited Shell's coverage to abrupt events, contrary to *Geddes*. (*Geddes, supra*, 51 Cal.2d at pp. 563- 564.) Jury instruction No. 35 stated: "The term 'accident' means a casualty, something out of the usual course of events, which happens suddenly and unexpectedly and without the design of the person injured. The term 'accident' requires an element of fortuity and an event or happening which occurs in a spontaneous, instantaneous, abrupt or immediate manner, or which happens or comes without warning or premonition, or takes place or appears all at once, or is discovered unexpectedly and happens without warning." However, Shell's argument that this instruction erroneously allowed only abrupt events

to be covered has two flaws.

First, “accident” is not an isolated term in the policies; rather, it is an integral part of the “occurrence” definition. Just before defining “accident,” the trial court told the jury that “occurrence” included “continuous or repeated exposure to conditions” that results in property damage. A covered “occurrence” could include events that are not abrupt because the “occurrence” definitions enlarged the concept of “accident” to encompass events that happen gradually. Considered as a whole, the instructions did not preclude coverage for an “occurrence” that was gradual and not abrupt in nature.

Second, the trial court's definition of “accident” was consistent with the interpretation in *Geddes*. (*Geddes, supra*, 51 Cal.2d at pp. 563-564.) That [752] case stated that one defining element of an “accident” is that it “ ‘ ’ happens suddenly. ‘ ’ ” (*Id.*, at p. 563.) Shell argues that *Geddes* took this element from an accidental death policy case and that the only definition applicable to Shell appears later in the discussion: “ ‘ Accident, as a source and cause of damage to property, within the terms of an accident policy, is an unexpected, unforeseen, or undesigned happening or consequence from either a known or an unknown cause. ’ [Citation.]” (*Id.*, at pp. 563-564, quoting *Hauenstein v. Saint Paul-Mercury Indem. Co.* (1954) 242 Minn. 354 [65 N.W.2d 122, 126].) Shell notes that this definition does not include “sudden” or “suddenly.” However, *Geddes* does not purport to specify discrete meanings of “accident” dependent on the kind of insurance involved.

Shell overlooks the *Geddes* court's rationale for concluding that the door failures in question were accidents: “The door failures were unexpected, undesigned, and unforeseen. ... Moreover, they occurred suddenly. It bears emphasis that we are concerned not with a series of imperceptible events that finally culminated in a single tangible harm [citation], but with a series of specific events each of which manifested itself at an identifiable time and each of which caused identifiable harm at the time it occurred. ... [E]ach door, when it failed, failed suddenly. At one moment it was a usable door, at the next it was not.” (*Geddes, supra*, 51 Cal.2d at p. 564.)

Geddes does not support Shell's view that suddenness should not be used to define “accident.” Moreover, the trial court instructed the jury that “continuous or repeated exposure” could be an “occurrence.” The “occurrence” definitions therefore encompassed both sudden and gradual events. Viewed together, the instructions defining “accident” and “occurrence” were correct.

B. “Sudden” Events Start Abruptly

The second issue concerning “sudden” is the subject of substantial judicial disagreement across the country. Shell and Aerojet contend that in pollution exclusions, “sudden” need not have a temporal connotation and reasonably can mean just “unexpected” or, as Shell urges with less vigor, “unintended.” They argue that “sudden” is ambiguous and that we should construe it to cover unexpected or unintended events without any temporal limitation. They claim the trial court erred by instructing the jury that in the pollution exclusions, “ ‘ sudden ’ means a happening without warning; unforeseen; a happening coming or appearing unexpectedly; not foreseen or prepared for; and characterized by hastiness, abruptness, quickness, and swiftness.”

We first consider the context in which Shell's policies use “sudden.” Before the pollution exclusions were added to those policies in 1969, they [753] covered liability arising from an “occurrence,” including “continuous or repeated exposure to conditions.” The pollution exclusions changed that. From 1969 through the 1970's, Shell's excess insurers' policies typically stated that they did not cover “[l]oss of, damage to, or loss of use of property directly or indirectly caused by seepage, pollution, or contamination” Other policies then and later relied on a more detailed exclusion, which stated that the insurance did not apply to “property damage arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any watercourse or body of water” This language created a broad exclusion from coverage for any liability resulting from pollution.

Nevertheless, nearly all the pollution exclusions contained some exception that could reinstate coverage. Two of the standard exceptions to the pollution exclusion used “sudden.” In Shell's policies, the first and most common exception reinstated coverage if the “seepage, pollution or contamination is caused by a *sudden, unintended and unexpected happening* during the period of this Insurance.” (Italics added.) The second exception, used in relatively few Shell policies, stated that the “exclusion does not apply if such discharge, dispersal, release or escape is *sudden*

and accidental.” (Italics added.)

Our interpretation is governed by the context in which “sudden” is used and by two basic rules: (1) we interpret policy language in its ordinary and popular sense unless the parties expressed a contrary intent (Civ. Code, § 1644; *AIU, supra*, 51 Cal.3d at pp. 826-827); and (2) “[t]he whole of a contract is to be taken together, so as to give effect to every part, if reasonably practicable, each clause helping to interpret the other.” (Civ. Code, § 1641.) The way we define words should not produce redundancy, but instead should give each word significance. (*AIU, supra*, at p. 827.)

These rules create an obvious problem for interpreting the first exception’s “sudden” to mean “unexpected” or “unintended.” If covered pollution has to be “a sudden, unintended and unexpected happening,” then we must distinguish “sudden” from “unexpected” and “unintended.” That distinction lies in the temporal connotation inherent in the ordinary meaning of “sudden.”

The potential for redundancy also appears in the second exception, where a covered “discharge, dispersal, release or escape” of a pollutant has to be “sudden and accidental.” Many courts have wrestled with this phrase and [754] disagreed over the meaning of “sudden.”^{FN6} The United States Court of Appeals for the Third Circuit managed to come down on both sides of the question. (*Northern Ins. Co. v. Aardvark Associates* (3d Cir. 1991) 942 F.2d 189, 193 [predicting that under Pennsylvania law, “sudden and accidental” applies only to discharges that are abrupt and last a short time]; *New Castle County v. Hartford Acc. and Indem. Co., supra*, 933 F.2d at pp. 1194-1195, 1198-1199 [predicting that under Delaware law, “sudden and accidental” means “unexpected and unintended”].)

FN6 (See, e.g., *New Castle County v. Hartford Acc. and Indem. Co.* (3d Cir. 1991) 933 F.2d 1162, 1195-1196, fns. 60 and 61 and accompanying text [cataloguing the divergent opinions on this issue]; *Hecla Min. Co. v. New Hampshire Ins. Co., supra*, 811 P.2d at p. 1091 [same]; *Lumbermens Mut. Cas. v. Belleville Ind.* (1990) 407 Mass. 675, 555 N.E.2d 568, 572], fns. 4 and 5 [same].)

Several courts have been swayed by the fact that not all dictionary meanings for “sudden” include temporal terms. (See, e.g., *New Castle County v. Hartford Acc. and Indem. Co., supra*, 933 F.2d at pp. 1193-1194, 1198; *Just v. Land Reclamation, Ltd.* (1990) 155 Wis.2d 737 [456 N.W.2d 570, 573]; *Claussen v. Aetna Cas. & Sur. Co.* (1989) 259 Ga. 333 [380 S.E.2d 686, 688].) These courts concluded that “sudden” is ambiguous and must be construed against the insurer to mean “unexpected.” (*New Castle County, supra*, at pp. 1193-1194, 1198; *Just, supra*, 456 N.W.2d at p. 573; *Claussen, supra*, 380 S.E.2d at p. 688; see also *Hecla Min. Co. v. New Hampshire Ins. Co., supra*, 811 P.2d at pp. 1091-1092.) However, a word’s context in a case can reveal a more refined meaning than those found in the dictionary. (See Holmes, *The Theory of Legal Interpretation, supra*, 12 Harv.L.Rev. at p. 417.)

Certainly, one aspect of the meaning of “sudden” is “unexpected.”^{FN7} But saying that “sudden” means “unexpected,” and nothing more, strips the word of a significant facet of its ordinary meaning. Sudden events derive an “unexpected” quality both from being unforeseen and from having a comparatively quick onset. We cannot reasonably call “sudden” a process that occurs slowly and incrementally over a relatively long time, no matter how unexpected or unintended the process. A “discharge, dispersal, release or escape” of pollutants that happens gradually and continuously for years is not “sudden” in the ordinary and popular sense of the word. (*American Motorists Ins. Co. v. General Host Corp.* (D.Kan. 1987) 667 F.Supp. 1423, 1428-1429, *affd.* (10th Cir. 1991) 946 F.2d 1482, *mod. on reh.* (10th Cir. 1991) 946 F.2d 1489.) Thus, “sudden” necessarily contains a temporal element in addition to its connotation of the unexpected. [755]

FN7 See, e.g., Random House Dictionary, *supra*, page 1420, column 3 (“1. happening, coming, made, or done quickly, without warning, or unexpectedly: *a sudden attack; a sudden smile.* 2. occurring without transition from the previous form, state, etc.; abrupt: *a sudden turn; a sudden slope.* 3. Archaic. a. quickly made or provided b. impetuous; rash. 4. *Obs.* unpremeditated, as actions.”).

This approach also avoids making “sudden” and “accidental” redundant. Dictionaries define as “accidental” unexpected and unintended events.^{FN8} California law also equates “accident” with unexpected and unintended events. (See *Hogan v. Midland National Ins. Co.* (1970) 3 Cal.3d 553, 559-561 [91 Cal.Rptr. 153, 476 P.2d 825]; *Geddes, supra*, 51 Cal.2d at pp. 563-564; *Richards v. Travelers Ins. Co.* (1891) 89 Cal. 170, 175 [26 P. 762].)

FN8 “1. Occurring unexpectedly and unintentionally by chance: *an accidental mistake*.” (American Heritage Dict., *supra*, p. 8, col. 1.) “I. Coming by chance, or on a chance occasion. [¶] 1. Happening by chance, undesignedly, or unexpectedly; produced by accident; fortuitous.” (1 Oxford English Dict., *supra*, p. 75, col. 2.) “1. Happening by chance or accident; unexpected: *an accidental meeting*.” (Random House Dict., *supra*, p. 9, col. 1.) “2: occurring sometimes with unfortunate results by chance alone: a: Unpredictable: proceeding from an unrecognized principle, from an uncommon operation of a known principle, or from a deviation from normal b: happening or ensuing without design intent, or obvious motivation or through inattention or carelessness” (Webster's Third New Internat. Dict., *supra*, p. 11, col. 3.)

An “accidental” event is both unintended and unexpected; omitting either leaves an important part of the word's meaning unexpressed. A “discharge, dispersal, release or escape” of pollutants that is expected is not accidental, regardless of whether it was not intended. Therefore, in the phrase, “sudden and accidental,” “accidental” conveys the sense of an unexpected and unintended event, while “sudden” conveys the sense of an unexpected event that is abrupt or immediate in nature. “Sudden and accidental” is not ambiguous if we give the words their full significance. A court should not make a phrase ambiguous by unreasonably truncating a word's meaning.

Of the many diverse opinions on the meaning of “sudden,” we find the better reasoned decisions are exemplified by *Lumbermens Mut. Cas. v. Belleville Ind.*, *supra*, 555 N.E.2d 568, and *U.S. Fidelity and Guar. v. Star Fire Coals, Inc.* (6th Cir. 1988) 856 F.2d 31. The Massachusetts high court stated: “For the word 'sudden' to have any significant purpose, and not to be surplusage when used generally in conjunction with the word 'accidental,' it must have a temporal aspect to its meaning, and not just the sense of something unexpected. ... The issue is whether the release was sudden. The alternative is that it was gradual. ... [¶] ... If the word 'sudden' is to have any meaning or value in the exception to the pollution exclusion clause, only an abrupt discharge or release of pollutants falls within the exception. [¶] ... Surely, the abruptness of the commencement of the release or discharge of the pollutant is the crucial element.” (*Lumbermens*, *supra*, at p. 572, fns. omitted.) The Sixth Circuit focused on plain meaning: “We believe the everyday meaning of the term 'sudden' is exactly what this clause means. We do not believe that it is possible to define 'sudden' without reference to a temporal element that joins together conceptually the [756] immediate and the unexpected.” (*U.S. Fidelity and Guar.*, *supra*, at p. 34.) Or, as one of Shell's brokers said, “I can't think of a better description of 'sudden' than sudden, something that happens at a precise point in time.” (Cf. *Geddes*, *supra*, 51 Cal.2d at p. 564.)

We also agree with *Lumbermens* that “sudden” refers to the pollution's commencement and does not require that the polluting event terminate quickly or have only a brief duration. (*Lumbermens Mut. Cas. v. Belleville Ind.*, *supra*, 555 N.E.2d at p. 572, fn. 6 and accompanying text.) If a sudden and accidental discharge continues for a long time, at some point it ceases to be sudden or accidental. (*Ibid.*; see *Liberty Mut. Ins. v. SCA Services* (1992) 412 Mass. 330 [588 N.E.2d 1346, 1349-1350].) Still, a sudden and accidental discharge of a dangerous pollutant could continue unabated for some period because of a negligent failure to discover it, technical problems or a lack of resources that delay curtailment, or some other circumstance. Liability from such an event could well be covered.

We therefore find no error in the jury instructions that defined “sudden” in the pollution exclusions.

6. Itemizing CERCLA Response Costs and the “Care, Custody or Control” Exclusions

Shell challenges two other jury instructions. One instruction concerned the CERCLA response costs Shell was to pay under the settlement with the United States. The other dealt with coverage exclusions for damage to property in Shell's care, custody, or control. Because the CERCLA response costs include remedial activities on Shell's leasehold at the Arsenal, the two issues are related, and we discuss them jointly.

Jury instruction No. 39 said that Shell had the burden of itemizing and defining the purpose and nature of the CERCLA response costs for which Shell sought coverage. The jury then had to assign each response cost to one of four categories. The only category not covered was the cleanup of first party property. The trial court told the jury that coverage could be available for remedial measures taken on first party property to prevent imminent damage to others or third party property. First party property was defined as “property owned by Shell and in some circumstances, property leased or under the care, custody or control of Shell. Third-party property is all other

property.”

Jury instruction No. 40 said, in part: “[S]ome of the primary and excess insurance policies issued to Shell by the insurers contain a provision known [757] as a care, custody or control exclusion, which excludes coverage for damage to property owned by Shell, or property rented or occupied by Shell, or property in the care, custody or control of Shell. [¶] If Shell proves that there was actual or discernible damage to property, you must determine whether the property which was damaged was owned, leased or occupied by Shell, or in the care, custody or control of Shell. [¶] Under certain liability policies issued to Shell, only real property which is owned by Shell is excluded.” The trial court told the jury that this instruction was subject to the CERCLA response costs instruction, and that the jury had to consider Shell's coverage claims and the insurers' defenses on a policy-by-policy, year-by-year basis. The court also instructed the jury that the insurers had to prove “all of the facts necessary to establish that an exclusion or any exclusionary language applies to limit or abrogate coverage”

Shell protests that requiring it to prove its CERCLA response costs contravened *AIU* and imposed on Shell part of the insurers' burden of proof. Shell also contends that the trial court should not have instructed the jury on the “care, custody or control” exclusions. In Shell's view, the exclusions applied only to personal property, not to remedial measures on first party property to protect third party property. Further, Shell argues that the exclusions cannot apply because, as a matter of law, Shell could not have care, custody, or control of the polluted soil and groundwater. None of these assertions has merit.

Nothing in *AIU* requires that insurance cover all CERCLA response costs. *AIU* addressed only basic coverage clause language and expressly declined to consider other policy clauses. (*AIU*, *supra*, 51 Cal.3d at pp. 814-815, 818-819, fn. 7, 843.) By contrast, the trial court here dealt with many different exclusions from hundreds of policies. *AIU* did not mandate coverage of all CERCLA response costs without regard to the nature of those costs or the language of the policies and exclusions involved. Instead, *AIU*'s main precept is that coverage depends in the first instance on the language of the insurance contract. (*Id.*, at pp. 821-824, 843.)

Shell's basic coverage clauses, except in some excess policies, are similar to those *AIU* discussed. (*AIU*, *supra*, 51 Cal.3d at pp. 814-815.) *AIU* held that the standard basic insuring provisions of CGL policies cover remedial and mitigative CERCLA response costs, including reimbursing government agencies (*id.*, at pp. 828-830) and complying with injunctions (*id.*, at pp. 840-841). The court recognized an exception, described as a “limited circumstance” (*id.*, at p. 843), to the general rule of response costs coverage: “We do agree that prophylactic costs-incurred to pay for measures taken in advance of any release of hazardous waste-are not incurred 'because of [758] property damage.' [Citations.] Until such damage has occurred, whether on the waste site itself or elsewhere, there can be no coverage under CGL policies.” (*Ibid.*) As an example of environmental injunction costs that are prophylactic in nature and not covered under CGL policies, the court offered “altering dumping practices to prevent recurrences of leakage.” (*Id.*, at p. 841.) Thus, basic CGL insuring clauses do not necessarily cover all CERCLA response costs. (*Id.*, at p. 832 [“[G]overnment regulations or court orders requiring businesses ... to undertake purely prophylactic measures designed to prevent future discharges of hazardous waste result in costs that are not covered by CGL policies.”])

AIU does not suggest that an insured need not show the purpose and nature of the response costs for which it seeks coverage. The insured has the initial burden of showing that its claim is within the policy's basic coverage. (*Garvey v. State Farm Fire & Casualty Co.* (1989) 48 Cal.3d 395, 406 [257 Cal.Rptr. 292, 770 P.2d 704]; *Royal Globe Ins. Co. v. Whitaker* (1986) 181 Cal.App.3d 532, 537 [226 Cal.Rptr. 435].) The CERCLA response costs instruction reflected that initial burden. The burden of proof then shifted to the insurers to show that other policy language excluded all or part of the claim. (*Garvey*, *supra*, at p. 406; *Royal Globe*, *supra*, at p. 537.)

Shell argues it should not have had this burden of proof at all. Shell claims that because the insurers denied coverage, the settlement with the United States was presumptive evidence of both the fact and the amount of its liability. (See, e.g., *Isaacson v. California Ins. Guarantee Assn.* (1988) 44 Cal.3d 775, 791 [244 Cal.Rptr. 655, 750 P.2d 297].)

The trial court told the jury that the settlement established a presumption of Shell's liability to the United States. But, as Shell acknowledges in its opening brief, the settlement between Shell and the United States does not obligate Shell to pay a specific amount; Shell's liability is open-ended. Shell still had to prove the components of its liability under the settlement. The CERCLA response costs instruction properly gave Shell the burden of proving that its

response costs obligations under the settlement were within its policies' basic coverage.

The trial court did not misassign a burden of proof when it had the jury allocate the response costs to various categories, one of which had no coverage. Expenses solely for cleanup of first party property were not covered unless they were necessary to prevent imminent damage to third party property. *AIU* did not examine this exclusion from basic CGL coverage. (*AIU*, *supra*, 51 Cal.3d at pp. 814, 818-819, fn. 7, 843.) The instruction that defined first party property led the jury to the instruction on the “care, [759] custody or control” exclusions, which the court told the jury were, like all exclusionary language, the insurers' burden to prove.

We find no merit in Shell's argument that the trial court should not have instructed the jury on the “care, custody or control” exclusions. Contrary to Shell's contention, the exclusions were not limited to personal property. For example, the exclusions in Travelers' policies for 1951 to 1966 dealt with real property in the insured's care, custody or control. A typical clause provided: “These exclusions shall not apply to real property, other than property owned by the insured, provided such property is not at the time of the accident in the care, custody or control of the named insured.”

Shell also claims the exclusions do not apply because its response costs related to remedying soil and groundwater contamination. Shell argues that, as a matter of law, it cannot own or have care, custody, or control of groundwater and soil. Although private ownership rights in water may be limited by state law, ^{FN9} this does not mean that lake waters or groundwater could not be in Shell's care, custody, or control. Indeed, controlling groundwater quality by interception and treatment is part of the remedial activities under the consent decree. Further, the exclusions plainly apply to soil within Shell's leasehold or control. Whether Shell's coverage claims fell within the scope of the exclusion was an issue for the trier of fact.

FN9 See, e.g., Water Code section 102 (“All water within the State is the property of the people of the State”); Colorado Constitution, article XVI, section 5 (“The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public”).

We reject Shell's argument that the “care, custody or control” instruction suggested that remedial steps on leased property were not covered if the leased property had been damaged. The instruction plainly stated that it was subject to the immediately preceding instruction on CERCLA response costs. That instruction told the jury that remedial measures on first party property to prevent imminent danger to others could be covered. The CERCLA response costs instruction covered the point Shell complains was missing from the “care, custody or control” instruction. There was no need to repeat the point in both instructions.

7. The Late Notice Defense

One of the insurers' many defenses was that Shell failed to give timely notice of the Arsenal pollution claims. The jury instruction on the insurers' late notice defense stated, in part: “Shell's policies require that Shell provide notice to its insurers. An insurer is not required to provide coverage to Shell [760] if Shell violated that part of the insurance contract that required Shell to give timely notice of any claims against it and this failure to give notice caused the insurer to suffer substantial prejudice. To prove this violation, an insurer has the burden of proving two things: [¶] 1. That Shell was late in notifying the insurer of the underlying claim; and [¶] 2. That the insurer actually suffered substantial prejudice as a result of this late notification. [¶] 'Substantial prejudice' means the insurer must prove that the lack of timely notice had an adverse effect on the ability of the insurer to investigate and prepare a defense in the underlying claim. ...”

Shell contends the trial court erred by not directing a verdict on the late notice defense. In addition to claiming it gave timely notice, Shell asserts that the insurers failed to show actual prejudice and that they waived the defense by denying coverage. The insurers argue the evidence warranted submitting the defense to the jury. The insurers also urge this defense as an independent basis for affirming the judgment.

In Shell's view, no obligation to notify the insurers arose until late 1981, when Shell says it learned that the Army intended to sue under CERCLA. From January 1982 to June 1983, Shell sent a series of notices to its insurers. Shell sued the insurers for declaratory relief in October 1983, approximately two months before the United States and

Colorado sued Shell. Answering Shell's suit, the insurers denied liability on several grounds, including Shell's failure to give timely notice. Similarly, Travelers' January 1985 reservation of rights specified 13 grounds for no coverage, including Shell's failure to give timely notice.

The insurers say Shell had to notify them as soon as practicable after learning of an accident or occurrence likely to give rise to a claim under the policies. They assert Shell had that knowledge by May 1970, when the Army first asked Shell to help pay Arsenal pollution claims. We assume for purposes of discussion that Shell did not give timely notice and that notice was due long before Shell knew the Army would sue under CERCLA for the Arsenal cleanup.

California law is settled that a defense based on an insured's failure to give timely notice requires the insurer to prove that it suffered substantial prejudice. (*Clemmer v. Hartford Insurance Co.*, *supra*, 22 Cal.3d at pp. 881-883; *Billington v. Interinsurance Exchange* (1969) 71 Cal.2d 728, 737- 738 [79 Cal.Rptr. 326, 456 P.2d 982]; *Campbell v. Allstate Ins. Co.* (1963) 60 Cal.2d 303, 305-307 [32 Cal.Rptr. 827, 384 P.2d 155]; *Select Ins. Co. v. Superior Court* (1990) 226 Cal.App.3d 631, 636-637 [276 Cal.Rptr. 598]; *Northwestern Title Security Co. v. Flack* (1970) 6 Cal.App.3d 134, 140-143 [761] [85 Cal.Rptr. 693].) Prejudice is not presumed from delayed notice alone. (*Campbell, supra*, at p. 307; *Northwestern, supra*, at p. 141.) The insurer must show actual prejudice, not the mere possibility of prejudice. (*Billington, supra*, at p. 737.)

In *Northwestern*, the court explained that, under California's notice-prejudice rule, "prejudice does not arise merely because a delayed or late notice has denied the insurance company the ability to contemporaneously investigate the claim or interview witnesses. ... [T]he same rule applies to the denial of the opportunity to make an early settlement of the claim. Again, as pointed out in *Billington*, the burden was upon [the insurer] to show that, but for the delay in making a prompt investigation and in hiring [an] attorney at the early stages, there was a substantial likelihood that [the insurer] could have prevailed in a negligence action brought against [the insured] or that [the insurer] could have settled the case for a small sum or a smaller sum than that for which [the] insured ultimately settled the claim." (*Northwestern Title Security Co. v. Flack, supra*, 6 Cal.App.3d at pp. 142-143.) Under the notice- prejudice rule, the Supreme Court has said, "prejudice is not shown simply by displaying end results; the probability that such results could or would have been avoided absent the claimed default or error must also be explored." (*Clemmer v. Hartford Insurance Co.*, *supra*, 22 Cal.3d at p. 883, fn. 12.)

The insurers say they proved substantial actual prejudice by showing that the Arsenal cleanup's estimated costs increased dramatically between 1972 and 1982. They also assert that the passage of time made defending the claims more difficult. According to the insurers, Shell denied them the right to investigate and participate in the events at the Arsenal and deprived them of the opportunity to defend or settle the Army's claims.

To show prejudice from the passage of time, the insurers cite a stipulation listing the names and job titles of 18 persons who were dead or unavailable when Shell's declaratory relief action was tried. This simple listing fails to establish prejudice. The list does not indicate what additional evidence these people might have provided, nor does it suggest how their unavailability affected either Shell's liability or the insurers' ability to mount a defense.

To support their assertion that the Arsenal cleanup costs escalated, the insurers point to several estimates made over the years. In 1972, the Army envisioned a cleanup cost of \$60 million over a five-year period. A 1975 restoration plan was estimated to cost \$345 million over 17 years, and in 1976, a preliminary estimate of restoration costs was \$500 million. When the United States sued Shell in December 1983, its complaint said the estimated [762] cost of remedial action was \$1.8 billion. Shell's settlement with the United States sets Shell's responsibility for cleanup costs at 50 percent of the first \$500 million, 35 percent of the next \$200 million, and 20 percent of amounts over \$700 million.

Obviously, there is a substantial difference between \$60 million and \$1.8 billion. However, the low early Arsenal damage estimates fail to raise a triable inference that the insurers were prejudiced by late notice. The insurers offered no evidence that the low initial estimates would have defined Shell's CERCLA liability if Shell had given the insurers earlier notice. No evidence suggests that with timely notice by Shell, the insurers would have reduced or eliminated Shell's CERCLA liability. Ultimately, the record does not support an inference that earlier notice would have changed anything.

Another factor affecting the insurers' late notice defense is their wide-ranging denial of any coverage. This court has stated, "The law is established that where an insurance company denies liability under a policy which it has issued, it waives any claim that the notice provisions of the policy have not been complied with." (*CNA Casualty of California v. Seaboard Surety Co.* (1986) 176 Cal.App.3d 598, 617 [222 Cal.Rptr. 276], citations and internal quotation marks omitted; see *Eichler Homes, Inc. v. Underwriters at Lloyd's, London* (1965) 238 Cal.App.2d 532, 539 [47 Cal.Rptr. 843]; *Comunale v. Traders & General Ins. Co.* (1953) 116 Cal.App.2d 198, 202-203 [253 P.2d 495]; cf. *Clemmer v. Hartford Insurance Co.*, *supra*, 22 Cal.3d at p. 883 ["The fundamental defect in [the insurer's] position here is that it has at no time suggested that, in the event that a timely tender of the defense of the [underlying claim] had been made, it would have undertaken the defense."].)

The insurers point out that they raised the late notice defense at the same time they denied coverage on other grounds. Thus, they rely on *Select Ins. Co. v. Superior Court*, *supra*, 226 Cal.App.3d 631. In that case, the trial court granted a summary adjudication that the insurers could not rely on a late notice defense because they denied coverage. (*Id.*, at p. 635.) The appellate court reversed because the denial of coverage by itself does not prove that the insurers would have responded the same way if notice had been timely. (*Id.*, at p. 637.) The court stated, "The fact that after judgment [against the insured] had been entered, and the opportunity to settle apparently lost, the insurers chose to assert both defenses to coverage and lack of notice does not foreclose the possibility that had the insurers received notice before judgment they would have attempted to settle the case, even over [the insured's] objection." (*Id.*, at pp. 638-639.) The court concluded that the insurers might show this type of prejudice at trial. (*Ibid.*) However, the court also noted, "In [763] our view *Clemmer* makes it clear an insurer is not allowed to rely on an insured's failure to perform a condition of a policy when the insurer has denied coverage because the insurer has, by denying coverage, demonstrated performance of the condition would not have altered its response to the claim. [Citation.]" (*Select Ins. Co.*, *supra*, at p. 637.)

This last point holds the crux of the issue. In order to demonstrate actual, substantial prejudice from lack of timely notice, an insurer must show it lost something that would have changed the handling of the underlying claim. If the insurer asserts that the underlying claim is not a covered occurrence or is excluded from basic coverage, then earlier notice would only result in earlier denial of coverage. To establish actual prejudice, the insurer must show a substantial likelihood that, with timely notice, and notwithstanding a denial of coverage or reservation of rights, it would have settled the claim for less or taken steps that would have reduced or eliminated the insured's liability. (Cf. *Billington v. Interinsurance Exchange*, *supra*, 71 Cal.2d at p. 737; *Northwestern Title Security Co. v. Flack*, *supra*, 6 Cal.App.3d at pp. 142-143.)

We find the evidence here insufficient to raise an inference of actual, substantial prejudice. Moreover, we see no substantial probability that the insurers' response to the Arsenal claims would have been different had Shell given earlier notice. We cannot infer from this record any likelihood that, with earlier notice, the insurers would have settled or otherwise resolved Shell's Arsenal liability for less than Shell agreed to pay.

Therefore, the trial court should have granted Shell's motion for a directed verdict on the insurers' late notice defense. However, Shell suffered no prejudice when the trial court submitted this issue to the jury. To find prejudice, we must conclude that the error probably misled the jury and influenced its verdict; i.e., we must find it probable that the jury based its verdict on this issue. (See *Henderson v. Harnischfeger Corp.* (1974) 12 Cal.3d 663, 670 [117 Cal.Rptr. 1, 527 P.2d 353].) (18) An erroneous instruction on matters for which there is no evidence will not justify reversal unless it misled the jury and prejudiced the appellant. (*Mehollin v. Ysuehijama* (1938) 11 Cal.2d 53, 57 [77 P.2d 855].) In evaluating prejudice, we assume the jury understood the instructions and correctly applied them to the evidence. (*Gillespie v. Rawlings* (1957) 49 Cal.2d 359, 369 [317 P.2d 601].)

After reviewing the entire record, we are convinced it is not probable that the jury based its verdict on the late notice defense. There was no evidence the insurers suffered substantial prejudice, even under the too [764] lenient test of "an adverse effect on the ability of the insurer to investigate and prepare a defense in the underlying claim." Shell notified the insurers of the United States' potential claim nearly two years before the suit was filed. Shell investigated and defended itself against the underlying claims, the United States' and Colorado's suits. Travelers later advanced nearly \$17 million for defense costs and agreed to forgo controlling or participating in the defense. We conclude that the jury was not likely to believe the insurers were substantially prejudiced. Although the trial court erred by submitting this defense to the jury, there is no probability that Shell was prejudiced by the error.

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FN* See footnote, *ante*, page 715.

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9. *Travelers' Appeal and OIL's Cross-appeal*

Travelers appeals from the judgment for OIL on Travelers' cross-complaint for contribution to Shell's defense costs in the suits by the United States and Colorado. Travelers argues that OIL shared the duty to defend Shell because OIL was potentially liable under its first party and third party coverages. Travelers also argues that equitable principles require OIL to contribute to Shell's defense and that the trial court erred by not submitting Travelers' cross-complaint to the jury. In a cross-appeal, OIL contends that the trial court, in the phase I statement of decision, misconstrued the "occurrence" definition in OIL's insurance policies.

A. *OIL's Cross-appeal*^{FN*}

FN* See footnote, *ante*, page 715.

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B. *Travelers' Appeal*

Travelers offers several reasons why OIL should contribute to Shell's defense costs in the underlying litigation. First, Travelers argues that because OIL insured Shell for first party claims and third party pollution liability claims, OIL potentially is Shell's primary insurer for the Arsenal pollution damage. Second, Travelers argues that the "sue and labor" clause of OIL's first party coverage^{FN16} requires that OIL contribute to the defense of third party claims. Third, Travelers argues that equitable principles support [765] OIL's duty to contribute to Shell's defense costs. (Citing *Signal Companies, Inc. v. Harbor Ins. Co.* (1980) 27 Cal.3d 359 [165 Cal.Rptr. 799, 612 P.2d 889, 19 A.L.R.4th 75].)

FN16 The OIL policies explained "sue and labor" expense in the following terms: "In case of loss or damage or imminent loss or damage hereunder, it shall be lawful and necessary for [Shell] ... to sue, labor and travel for, in and about the defense, safeguard and recovery of the insured property, or any part thereof without prejudice to this insurance, nor shall the act of [Shell] or [OIL] in recovering, saving and/or preserving the insured property in case of disaster be considered a waiver or an acceptance of abandonment."

Travelers argues that because OIL's insuring agreements 1 and 2^{FN17} potentially afford coverage for cleanup of Arsenal property Shell leased and Travelers excluded from coverage, OIL may be Shell's primary insurer for some cleanup costs. While recognizing that OIL insuring agreements 1 and 2 are first party coverages, Travelers nevertheless argues that OIL's potential duty to indemnify triggers a duty to defend. However, Travelers cites no authority that a potential duty to indemnify under first party coverage creates a duty to defend against third party claims.

FN17 OIL's insuring agreement 1 stated that OIL agreed "To indemnify [Shell] for all risks of direct physical loss or damage, caused by an occurrence, to property of any kind or description wherever located, owned by [Shell] ..., or to non-owned property in which [Shell] has an insurable interest. ..." OIL's insuring agreement 2 stated that OIL agreed "To indemnify or pay on behalf of [Shell] any sum or sums which [Shell] may be obligated to pay or incurs as expenses, on account of: [¶] a. Sue and Labor Expense, to the extent reasonably incurred, arising from an occurrence covered hereunder. ... [¶] c. Removal of Debris of property covered hereunder or which [Shell] is legally obligated to remove, where such Debris arises from an occurrence, including expenses incurred for the purpose of complying with laws, regulations or orders of any governmental authority or agency or instrumentality thereof specifically including but not limited to

the United States Coast Guard.”

First party coverage for damage to the insured's own property is not the same as third party liability insurance and should be treated differently. (See *Garvey v. State Farm Fire & Casualty Co.*, *supra*, 48 Cal.3d at pp. 405-408; cf. *Prudential-LMI Com. Insurance v. Superior Court* (1990) 51 Cal.3d 674, 698 [274 Cal.Rptr. 387, 798 P.2d 1230].) Travelers argues that California law imposes an implied obligation to defend unless the policy clearly and expressly excludes that duty. (Citing *Pacific Indemnity Co. v. Fireman's Fund Ins. Co.* (1985) 175 Cal.App.3d 1191, 1200 [223 Cal.Rptr. 312]; *Aetna Cas. & Surety Co. v. Certain Underwriters* (1976) 56 Cal.App.3d 791, 800 [129 Cal.Rptr. 47].) But those cases dealt with excess *liability* insurers' duty to defend after a primary liability insurer paid its policy limits. No similar circumstance is presented here. Travelers cites no authority that first party property insurance carries a duty to defend third party liability claims. We see no reason to create such a duty.

Travelers also argues that the “sue and labor” expense clause imposes a duty to contribute to defense costs. Our Supreme Court described [766] the “sue and labor” expense clause as follows “Such a clause makes express the duty implied in law on the part of the insured to labor for the recovery and restitution of damaged or detained property [citation] and it contemplates a correlative duty of reimbursement separate from and supplementary to the basic insurance contract.” (*Young's Market Co. v. American Home Assur. Co.* (1971) 4 Cal.3d 309, 313 [93 Cal.Rptr. 449, 481 P.2d 817].) “There is, however, a fundamental limitation upon the insurer's duty under a 'sue and labor' clause to compensate the insured for expenses incurred in the preservation and protection of insured property: the expenses in question must be incurred to preserve the insured property from a peril insured against under the basic policy.” (*Id.*, at p. 314, original italics omitted.)

Travelers argues that Shell, by defending the government suits, affirmatively sought to mitigate OIL's potential exposure under the first party coverages afforded by insuring agreements 1 and 2. However, Shell's defense costs in its effort to avoid or minimize its liability in the underlying actions do not come within the OIL policies' description of “sue and labor” expenses or the accepted view of such clauses' purpose. An insured's attempts to avoid or reduce a liability to third parties do not constitute efforts to prevent or limit damage to the insured's covered property.

Travelers also argues that OIL's third party coverage under insuring agreement 3 required OIL to contribute to Shell's defense costs. ^{FN18} The OIL policies did not promise to defend Shell in third party suits. Instead, OIL's policies specified that “[OIL] shall not be called upon to assume charge of the settlement or defense of any claim made or suit brought or proceeding instituted against [Shell] but [OIL] shall have the right and shall be given the opportunity to associate with [Shell], in the defense and control of any claim, suit or proceeding relative to an occurrence where the claim or suit involves, or appears reasonably likely to involve [OIL], in which event [Shell] and [767] [OIL] shall cooperate in all things in the defense of such claim, suit or proceeding.”

FN18 Insuring agreement 3 stated that OIL agreed “To indemnify or pay on behalf of [Shell] any sum or sums for which [Shell] may be legally liable ... as a result of ... loss of or damage to ... property of any kind or description other than property insured under insuring agreement 1 arising out of seepage, pollution or contamination caused by an occurrence, provided, however, coverage under this insuring agreement shall be in excess of the limits of all other of [Shell]'s insurance policies, which are then in force to insure its liability for seepage, pollution or contamination.” Insuring agreement 3's coverage included indemnification of “reasonable and necessary legal expenses and costs incurred in defending and/or investigating claims”

The nature of the OIL insurance was further emphasized in another section of the policies: “This insurance shall be in excess of any other valid and collectible insurance and shall not apply until all such other insurance has been exhausted; however, such other insurance shall apply to satisfy the deductible [which for Shell was \$10 million] Nothing herein shall be construed to make this policy subject to the terms conditions or limitations of such other insurance nor contribute with such other insurance.”

Travelers provided Shell's primary CGL insurance from 1948 to 1975. Travelers' policies specifically required it to defend Shell. The policies also provided that defense costs Travelers expended before paying its liability limit would be in addition to that limit. Travelers paid nearly \$17 million towards Shell's defense in the underlying cases, but has not paid any part of its liability limits.

Travelers argues that because its policies contained a pollution exclusion after 1969, while OIL's policies expressly provided pollution coverage, OIL potentially provided Shell's only coverage for the underlying claims. Travelers contends that OIL therefore was in a primary insurer's position and had a duty to defend. Travelers points out that an insurance carrier has to defend its insured whenever it ascertains facts—from the complaint, the insured, or another source—that show a potential liability within the policy's coverage. (*Gray v. Zurich Insurance Co.* (1966) 65 Cal.2d 263, 275, 276-277 [54 Cal.Rptr. 104, 419 P.2d 168]; *CNA Casualty of California v. Seaboard Surety Co.*, *supra*, 176 Cal.App.3d at pp. 605- 607.) However, this test does not apply to an excess insurer so long as the primary insurer has a duty to defend.

In *Signal Companies, Inc. v. Harbor Ins. Co.*, *supra*, 27 Cal.3d 359, the Supreme Court considered defense cost allocation when the claim's settlement exceeded the primary insurer's coverage limit and required the excess insurer's participation. The insured there was one of many defendants in the underlying action, which sought \$25 million in damages. The primary insurer spent \$95,000 in defense costs and incurred almost all of these costs before the excess carrier was asked to contribute to a settlement. (*Id.*, at pp. 363- 364, 365-366.) The primary coverage limit was \$25,000, and the claim was settled for \$35,000 when the excess insurer promptly agreed to pay \$10,000. (*Id.*, at pp. 363-364.)

The court rejected the primary insurer's argument that the excess insurer should share the defense costs once it had notice that the claim might invade its coverage. (*Signal Companies, Inc. v. Harbor Ins. Co.*, *supra*, 27 Cal.3d at p. 366.) The court noted that such a rule would require the excess insurer to contribute though there might never be excess liability and despite explicit provisions in the excess policy. “This would be contrary to that line of cases which hold that where there is excess coverage, whether by virtue of an excess clause in one policy or otherwise, it is the primary insurer which is solely liable for the costs of defense if the judgment does not exceed primary [768] coverage. [Citations.] These cases have held generally that even though the *claim* against the insured may be for a sum in excess of the primary coverage, the primary insurer is obligated to provide a defense and may not seek contribution from the excess carrier even though its successful settlement or defense relieves the excess insurer from indemnifying the injured party. [Citation.]” (*Id.*, at p. 368, original italics.) Further, the court found no compelling equitable basis for shifting to the excess carrier costs that the primary carrier incurred mainly to discharge its own contractual obligations. (*Id.*, at p. 370.)

Under *Signal Companies*, an excess insurer is not required to participate in the insured's defense simply because the underlying claim might involve the excess coverage. Moreover, OIL's policy stated that OIL “shall not be called upon to assume charge of the settlement or defense of any claim” When an excess policy contains this type of clause, the primary insurer ordinarily must defend until the litigation is resolved; only settlement or payment of the judgment extinguishes the primary insurer's duty to defend. (*Diamond Heights Homeowners Assn. v. National American Ins. Co.* (1991) 227 Cal.App.3d 563, 574, 577 [277 Cal.Rptr. 906]; *Chubb/Pacific Indemnity Group v. Insurance Co. of North America* (1987) 188 Cal.App.3d 691, 695-696, 698 [233 Cal.Rptr. 539].)

We find no merit in Travelers' contention that the pollution exclusion in its later policies made OIL Shell's primary liability insurer for pollution claims. The exclusion was not absolute-coverage was available for unexpected and unintended polluting events. OIL's pollution coverage also was not absolute-it covered only pollution caused by an “occurrence,” i.e., an “event” or “exposure” or “condition” Shell neither expected nor intended. When we evaluate the duty to defend, these clauses do not necessarily relieve Travelers or involve OIL.

As a primary insurer, Travelers had the initial duty to defend Shell in the underlying cases. Travelers' policies explicitly promised to defend Shell, while OIL's policies disclaimed this obligation. The claims against Shell were potentially within Travelers' coverage. Travelers' policies were “other insurance” under OIL's insuring agreements and were not exhausted. We conclude that OIL's policies were excess to Travelers' primary policies. Therefore, OIL could not have any duty to defend or contribute to defense costs unless the other insurance potentially covering the underlying claims was exhausted. (*Olympic Ins. Co. v. Employers Surplus Lines Ins. Co.* (1981) 126 Cal.App.3d 593, 600-601 [178 Cal.Rptr. 908].)

Travelers also argues that equitable principles require OIL to contribute to Shell's defense. [769] (Citing *Signal Companies, Inc. v. Harbor Ins. Co.*, *supra*, 27 Cal.3d at p. 369.) That court stated: “We expressly decline to formulate a definitive rule applicable in every case in light of varying equitable considerations which may arise, and which affect the insured and the primary and excess carriers, and which depend upon the particular policies of

insurance, the nature of the claim made, and the relation of the insured to the insurers. [Citation.] Moreover, we affirm the wisdom expressed in *Amer. Auto. Ins. Co. v. Seaboard Surety Co.* (1957) 155 Cal.App.2d 192, 195-196 [318 P.2d 84]: 'The reciprocal rights and duties of several insurers who have covered the same event do not arise out of contract, for their agreements are not with each other Their respective obligations flow from equitable principles designed to accomplish ultimate justice in the bearing of a specific burden. As these principles do not stem from agreement between the insurers their application is not controlled by the language of their contracts with the respective policy holders.' [Citation.]” (*Signal Companies, supra*, at p. 369.) However, the court concluded that only compelling equitable considerations could justify requiring an excess insurer to reimburse a primary insurer despite contrary policy terms. (*Ibid.*)

Travelers has not shown compelling equitable considerations. It notes that its liability limits are less than one twenty-fifth of OIL's limits, but only Travelers contributed to Shell's defense costs. Travelers also contends that part of those costs defended Shell against first party pollution damages, thereby benefiting OIL. Lastly, Travelers claims Shell tried to shield OIL from liability to avoid a retrospective premium assessment. These matters do not compel us to override OIL's policy and require a contribution to the defense costs Travelers advanced to perform its own contractual obligations.

Gross disparity between primary and excess liability limits does not create an equitable duty to contribute to defense costs. In *Signal Companies*, the primary policy's liability limit was \$25,000, while the excess policy's limit was \$10 million. (*Signal Companies, Inc. v. Harbor Ins. Co., supra*, 27 Cal.3d at p. 362.) Yet the court found no compelling equitable consideration requiring the excess insurer to contribute to the \$95,000 defense costs paid by the primary insurer. (*Id.*, at pp. 364, 369-370.)

Like Travelers, the primary insurer in *Signal Companies* paid the defense costs to discharge its own contractual obligations. (*Signal Companies, Inc. v. Harbor Ins. Co., supra*, 27 Cal.3d at pp. 369-370.) That case does not suggest that contribution is compulsory when some portion of the defense costs benefits the excess insurer. Indeed, the court noted that although a claim may exceed the primary policy limits, “the primary insurer is obligated to provide a defense and may not seek contribution from the excess carrier even though [770] its successful settlement or defense relieves the excess insurer from indemnifying the injured party. [Citations.]” (*Id.*, at p. 368.)

We will not override OIL's policy terms merely because Shell tried to shield OIL. We do not decide what effect such conduct might have on insurers' equitable duties under different circumstances and policies. But regardless of Shell's motives for protecting OIL, we do not find that Shell's acts should alter the relationship between its primary and excess insurers or the duties they expressly assumed or refused.

We also reject Travelers' alternative ground for appeal and find the trial court did not err in deciding the defense costs contribution issue as a matter of law. The trial court asked the basic question: “What are the factual issues for the jury?” Travelers' counsel told the trial court that whether OIL was potentially liable under its policies as a primary insurer for the Arsenal claims was a question of law. Travelers now claims the jury should have determined whether the facts underlying the Arsenal claims were potentially within the scope of the OIL policies. But Travelers does not identify any disputed facts that are material to the issue of *potential* coverage. Therefore, whether OIL had to contribute to Shell's defense costs was a question of law for the trial court. (See *California Shoppers, Inc. v. Royal Globe Ins. Co.* (1985) 175 Cal.App.3d 1, 35, 38 [221 Cal.Rptr. 171].) Furthermore, OIL is an excess insurer that cannot be required to defend Shell unless the underlying insurance is exhausted, which has not happened. Thus, any duty OIL might have to pay defense costs does not now depend on whether the Arsenal claims are potentially within OIL's coverage.

10. Analysis of Prejudice

We must assess the effect of the erroneous “expect” instructions. Instructional error alone is insufficient to overturn a verdict; the appellant must also show the error was prejudicial and resulted in a miscarriage of justice. (*Jones v. Toyota Motor Co.* (1988) 198 Cal.App.3d 364, 371 [243 Cal.Rptr. 611].)

Assessing the effect of the error in this case is a complex and difficult task. Shell sought coverage from a sophisticated array of insurance policies for events spanning more than 30 years. Shell argued that there were six distinct pollution sources at the Arsenal, each an “occurrence” under the policies, which began at different times for

different reasons. Shell's pollution sources were: (1) various unspecified spills, (2) the cooling water lakes, (3) the waste burial trenches, (4) the contaminated waste sewers, (5) the unlined basins, and (6) the lined basin (Basin F). We will separately examine each claimed pollution source to determine if Shell suffered prejudice. [771]

A. Rules for Determining Prejudice From Erroneous Instructions

An error in instructing the jury requires reversal of the judgment only when the reviewing court, “ ‘after an examination of the entire cause, including the evidence,’ concludes that the error ‘has resulted in a miscarriage of justice.’ ” (*Mitchell v. Gonzales* (1991) 54 Cal.3d 1041, 1054 [1 Cal.Rptr.2d 913, 819 P.2d 872]; *Weiner v. Fleischman* (1991) 54 Cal.3d 476, 490 [286 Cal.Rptr. 40 [816 P.2d 892].) We must determine if it is reasonably probable that the jury would have reached a result more favorable to Shell in the absence of the error. (*Mitchell, supra*, at p. 1054; *Weiner, supra*, at p. 490; *People v. Watson* (1956) 46 Cal.2d 818, 836 [299 P.2d 243].) “The test of reversible error has been stated in terms of the likelihood that the improper instruction misled the jury. [Citation.]” (*Weiner, supra*, at p. 490, citing *Henderson v. Harnischfeger Corp., supra*, 12 Cal.3d at p. 670.)

In *Henderson*, the court stated: “Generally speaking[,] if it appears that error in giving an improper instruction was likely to mislead the jury and thus to become a factor in its verdict, it is prejudicial and ground for reversal. [Citation.] To put it another way, ‘[w]here it seems probable that the jury’s verdict may have been based on the erroneous instruction prejudice appears and this court ’should not speculate upon the basis of the verdict.’ ” (*Robinson v. Cable* (1961) 55 Cal.2d 425, 428 [11 Cal.Rptr. 377, 359 P.2d 929]; see also *Luque v. McLean* [(1972)] 8 Cal.3d 136, 147 [501 P.2d 1163]; *Vistica v. Presbyterian Hospital* (1967) 67 Cal.2d 465, 471 [62 Cal.Rptr. 577, 432 P.2d 193]; *Oettinger v. Stewart* (1944) 24 Cal.2d 133, 140 [148 P.2d 19, 156 A.L.R. 1221].) As we observed in *Butigan v. Yellow Cab Co.* (1958) 49 Cal.2d 652, 660-661 [320 P.2d 500, 65 A.L.R.2d 1], “The determination whether, in a specific instance, the probable effect of the instruction has been to mislead the jury and whether the error has been prejudicial so as to require reversal depends on all the circumstances of the case, including the evidence and the other instructions given. No precise formula can be drawn.” [Citations.]” (*Henderson v. Harnischfeger Corp., supra*, 12 Cal.3d at pp. 670-671.)

Although there is no precise formula, the courts are guided by the five factors in *LeMons v. Regents of University of California* (1978) 21 Cal.3d 869, 876 [148 Cal.Rptr. 355, 582 P.2d 946]. (*Mitchell v. Gonzales, supra*, 54 Cal.3d at p. 1054; *Weiner v. Fleischman, supra*, 54 Cal.3d at p. 490; *Mock v. Michigan Millers Mutual Ins. Co.* (1992) 4 Cal.App.4th 306, 335-336, fn. 34 [5 Cal.Rptr.2d 594] and accompanying text; *Jones v. Toyota Motor Co., supra*, 198 Cal.App.3d at p. 371.) The *LeMons* factors are: “(1) the degree of conflict in the evidence on critical issues [citations]; (2) whether respondent’s argument to the jury may have contributed to the instruction’s misleading effect [citation]; (3) whether the jury requested a rereading of the [772] erroneous instruction [citation] or of related evidence [citation]; (4) the closeness of the jury’s verdict [citation]; and (5) the effect of other instructions in remedying the error [citations].” (*LeMons, supra*, at p. 876.)

However, if the judgment is the only one proper on the evidence, an erroneous instruction cannot be prejudicial. (Cal. Const., art. VI, § 13; 9 Witkin, Cal. Procedure (3d ed. 1985) Appeal, § 350, at p. 352.) Where there are distinct, independent issues, an error on one might not affect another that the evidence established as a matter of law. (See *Henderson v. Harnischfeger Corp., supra*, 12 Cal.3d at p. 674; cf. *Oettinger v. Stewart* (1944) 24 Cal.2d 133, 140 [148 P.2d 19, 156 A.L.R. 1221].)

B. Applying the LeMons Factors

The insurers’ counsel argued the case to the jury for two days. While they forcefully argued that Shell actually expected damage to result from its conduct, they also stressed the erroneous definition of “expect,” arguing that Shell should have known it was polluting. Rereading or emphasizing the language of an incorrect instruction enhances the likelihood of prejudice. (*Bolen v. Woo* (1979) 96 Cal.App.3d 944, 952-953 [158 Cal.Rptr. 454].) Similarly, emphasizing evidence supporting the claim or defense covered by the instruction is likely to mislead the jury. (*Mitchell v. Gonzales, supra*, 54 Cal.3d at pp. 1054-1055.) The insurers’ counsel did both in their closing arguments. Thus, the second *LeMons* factor-whether the insurers’ jury arguments contributed to the instructions’ misleading effect-suggests that the incorrect instructions prejudiced Shell on the affected issues.

The third *LeMons* factor-whether the jury requested rereading of the instruction or related evidence-provides no

useful guidance in this case. The jury had a copy of the instructions to use during deliberations and did not ask for any rereading. Nor did it ask the court to clarify any instructions. The only evidence the jury asked for was the testimony by Shell's expert witness, who discussed the means, timing, and range of the Arsenal pollution sources.

The fourth *LeMons* factor—the closeness of the jury's verdict—cannot help determine the erroneous instructions' effect. For the first 8 years for which Shell sought coverage, the jury's verdict was 11 to 1 that there was none; for the remaining years, it was 11 to 0, with 1 juror undecided. The error altered the showing the insurers needed to prove their exclusionary language applied. The nearly unanimous verdict could reflect that, under the objective standard, the jury found only that Shell should have known its waste disposal practices would cause property damage outside of the Arsenal. The verdict alone does not show a near consensus on whether Shell [773] actually expected its wastes to damage the property of others. Under the instructions, the jury did not need to decide Shell's actual expectations.

The fifth *LeMons* factor—the effect of other instructions in remedying the error—points here towards prejudice. Not only was the error not corrected by other instructions; it was propagated throughout the instructions. Thirteen jury instructions included the words “expected” or “unexpected,” or a term that was defined for the jury by using one of those words. Four of the instructions together effectively told the jury that Shell had no coverage if “it should have reasonably been known by Shell that there was a high degree of certainty that damage to the property of another would result from [Shell's intentionally committed] act” or if Shell “should have known that there was a substantial probability” that property damage would result from its acts or omissions. Thus, with one exception discussed below, the other instructions did not remedy the error, but instead expanded its scope.

Two *LeMons* factors suggest the instructional error was prejudicial, while two provide no indication one way or the other. However, the first *LeMons* factor—the degree of conflict in the evidence on critical issues—is decisive in this case. The phrase, “conflict in the evidence,” refers to the closeness of the case, including the disparity in the parties' factual presentations and the inferences to be drawn. (*Mock v. Michigan Millers Mutual Ins. Co.*, *supra*, 4 Cal.App.4th at pp. 335-336.) In assessing an instruction's prejudicial impact, we cannot use the view of the evidence and inferences most favorable to the insurers. (*Henderson v. Harnischfeger Corp.*, *supra*, 12 Cal.3d at p. 674; *Clement v. State Reclamation Board* (1950) 35 Cal.2d 628, 643- 644 [220 P.2d 897]; *Mock*, *supra*, at pp. 336-337.) Instead, we must assume the jury might have believed Shell's evidence and, if properly instructed, might have decided in Shell's favor. (*Henderson*, *supra*, at p. 674; *Clement*, *supra*, at pp. 643-644; *Mock*, *supra*, at p. 337.) These rules shape our review of the evidence on the six Arsenal pollution sources Shell asserted.

C. Conflicting Evidence on the Pollution Sources

i. Spills

Shell argues the insurers must, at least, cover the damage caused by spills of hazardous materials. Shell observes that spills usually are sudden and accidental, and that no evidence suggests Shell intended or expected them to occur. No evidence suggests Shell should have known particular spills would occur or would damage others' property. Shell showed that when a spill occurred inside its plant, it washed the material into the [774] chemical sewer with water. If the spill occurred outside, Shell contained and neutralized the material and dug up any affected soil, which it put in drums for disposal. Even so, Shell's expert witness testified that spill site residues were one source of pollution at the Arsenal.

Shell's evidence afforded slight proof that spills caused or threatened damage to property outside the Arsenal. The only substantive evidence that spills occurred outdoors also included the testimony on Shell's remedial measures. Shell's expert witness based his opinion on that testimony and a list of spills that was not in evidence. The only specific spill the expert discussed was not taken from trial testimony and was not stated to be a spill of a Shell chemical. The expert did not offer his basis for saying that spill cleanups left a residue of contaminants. Thus, there was scant evidence that spills of Shell chemicals constituted a property-damaging occurrence.

The evidence made it unlikely that the misinterpretation of “expected” affected the jury's rejection of coverage for spills. There was no suggestion that Shell intended to spill hazardous materials. The absence of an intended act brought another jury instruction to bear on the spills issue. In defining the insurers' burden of proof on “expected or intended,” the trial court told the jury: “If Shell did not intend to commit the act that caused the damage, then it

cannot be said that Shell intended or expected the resulting damage.” This instruction isolated the spills issue from the effect of the erroneous definition of “expect.” We conclude there is no probability that the mistaken definition of “expect” misled the jury on Shell's spills coverage claim.

ii. *The Cooling Water Lakes*

Three freshwater lakes lay just south of Shell's buildings at the Arsenal. These lakes supplied water Shell used to cool manufacturing equipment. Until 1965, when a closed loop system using a cooling tower was installed, Shell returned used water to the lakes. The death of wildlife around these lakes was a central theme of the insurers' case.

Soon after Hyman leased the lakes for pesticide manufacturing, ducks on the lakes died. In 1950, Dr. Hyman himself smelled his company's pesticides in the pipes that returned used water to the lakes. Approximately 1,200 ducks were killed in the spring of 1952. In November 1953, Shell's laboratory detected its pesticides in lake waters and noted that ducks could be poisoned, although the contamination's cause supposedly had been corrected.

In the mid-1950's, Shell and others found pesticide residues in dead ducks and lake algae. At about the same time, a caustic Shell chemical accidentally [775] leaked into a return water pipe, killing the lakes' fish. Ducks continued to die during the 1950's and into the 1960's. Another Shell analysis in 1964 detected pesticides in lake snails and aquatic vegetation. To mitigate the wildlife problems and placate the public and state authorities, in 1964 the Army drained the lakes and scraped a foot of mud from the lake bottoms. The contaminated mud was dumped on the nearby ground and covered with dirt. At the same time, a reconfigured cooling system ended the return of used water to the lakes.

Shell does not deny that pesticides contaminated the lakes and killed ducks during the 1950's and 1960's. However, Shell says it believed that the contamination's cause had been eliminated. Shell's prejudice claim turns on whether Shell's knowledge of the lakes' poisoning established that it expected to damage others' property. The evidence conflicted on this point.

Shell believed that groundwater would not transport the Arsenal pesticide products through the soil. Although the products were persistent in the environment, they were highly insoluble in water, and Shell believed they would not migrate appreciably in soil. Moreover, the pesticides were used on fields of growing crops, and in 1965 Shell did not think they endangered soil.

Though the evidence could support a finding that Shell should have known the contaminated lakes were highly likely to cause damage, the record also could support a finding that Shell did not expect damage to result. We conclude, therefore, that the mistaken instructions probably misled the jury on this issue and prejudiced Shell. However, the evidence established that by 1970 Shell expected that pollutants would seep from the lakes and bottom mud buried nearby.

iii. *The Waste Burial Trenches*

Between 1952 and 1967, Shell dumped toxic waste solids and sludge in unlined trenches on a tract of Arsenal land known as Section 36. The Army had no control over what Shell buried in these trenches. The trenches were 10 feet deep, 20 feet wide, and 300 feet long. Heated heavy waste residues were poured like tar into the trenches. Shell also put drums of waste material into the trenches. A Shell labor gang member testified that waste drums, at times rusted or bent, were pushed off trucks into the trenches, where some popped open and released sludge. When a trench was nearly full, the material was covered with fuel oil and burned; the trench was then covered with dirt.

In the fall of 1966, the Army told Shell to stop burning material in the open trenches because the dense black smoke caused air pollution complaints. Shell then began to store these wastes in drums on the ground in [776] Section 36. By 1968, several thousand drums were stored on the surface; more than a thousand had no tops. The drums held over 200,000 gallons of contaminated wastes. Shell knew by December 1965 that some drums had deteriorated from exposure to the elements and that some were leaking. In 1968, the Army's Mr. Donnelly believed that Section 36 was so polluted that decontamination was impossible; it had been “putrefied for eternity.”

Shell argues that this evidence does not show it knew that burying its wastes in trenches would damage others'

property. Shell notes that there was no evidence that the burial trenches contaminated groundwater until Shell's expert witness's analysis in 1987. While negotiating with the Army in July 1965, Shell's representatives claimed that burying solid wastes in trenches did not threaten the groundwater because the wastes were practically insoluble. Although they acknowledged that the detergent in that waste might contaminate the groundwater, they said detergent was "already in every stream in the United States." In that 1965 meeting, though, the Army told Shell not to bury wastes where groundwater would carry contaminants downstream.

Other evidence established that by the mid-1960's, Shell was fully aware of the contamination dangers inherent in its burial trench practices at the Arsenal. General Meetze, who had been the Arsenal's commanding officer in 1953 and was a consultant to Shell from 1964 to 1971, testified that Shell recognized those dangers in the mid-1960's. General Meetze helped design a chemical waste disposal system for another Shell plant in 1964. He testified that in 1964, discharging untreated chemical wastes onto the ground was not an option because they would be absorbed by the soil. He stated that in 1965, burying toxic material in shallow pits 10 or 15 feet underground was "definitely verboten." He added that burying toxic material was poor practice because of "leakage problems to the surrounding land," and because someone might later dig up the property, creating health problems for the diggers and others in the area. The general also testified that Shell clearly recognized these detriments.

In 1966, Shell's agricultural chemical manufacturing manager also recognized the risk that leaking drums in Section 36 would contaminate groundwater. A 1968 Shell report said the waste drum storage problem had reached critical proportions. Although the report recommended burning the waste in an open pit, it also stated: "This disposal would be accomplished by utilizing an open earthen pit lined with an impervious lining to prevent contamination of the ground water. ... The impervious lining should contain any material that is not decontaminated by the incineration, thus, making this proposal attractive to water pollution authorities." The report further confirms Shell [777] knew the high probability of harm from its Section 36 waste disposal practices.

There was no significant evidentiary conflict over whether Shell expected, after 1964, that its Section 36 waste disposal practices would contaminate the soil and groundwater. Shell knew it was discharging sludge wastes directly into the ground both before and after the Army ended the trench burnings. General Meetze testified Shell knew the dangers of doing this. By 1965, Shell expected that the wastes it dumped in Section 36 would eventually result in damage to others' property.

We conclude that if the jury was given the proper definition of "expect," it is not reasonably probable that it would find Shell had coverage after 1964 for the Section 36 contamination from the wastes in the trenches and drums. However, we conclude from conflicting evidence on the earlier period that the jury probably was misled by the incorrect "should have known" test for whether Shell expected its Section 36 waste disposal practices to cause property damage. After 1964, Shell certainly expected such damage.

iv. The Contaminated Waste Sewers

The chemical sewer system carried aqueous wastes to the evaporation basins. The system was built in the early 1940's using vitrified clay pipes connected by treated hemp and cement joints. In the mid-1950's, a new section was installed to carry wastes to Basin F. Joints in the new section were sealed with a material believed better able to withstand chemicals than the older joints.

In August 1953, Shell knew that the chemical sewers were sealed with concrete and were "probably put in as a wartime expediency" At that time, Shell discovered that a product it made for the government had caused some sewer pipe to deteriorate badly. Nevertheless Mr. Knaus, Shell's plant manager from 1965 to 1982, believed that the chemical sewer system was perfectly adequate for manufacturing pesticides because it was designed for chemical warfare agents. Mr. Donnelly, the Army's director of facilities for the Arsenal from the mid-1960's to the mid-1970's, said he knew of no systemwide leakage in the chemical sewers and that he first learned of spot leaks in late 1975.

However, Mr. Knaus also testified that from 1965 to 1981, he saw Shell repair and add to the chemical sewers. He stated that whenever they dug down to repair the sewer, they found the pipe had decomposed and collapsed under the weight of the earth above it. Mr. Knaus also stated that in every [778] case, the soil near the broken pipe was darker and obviously contaminated, though within two or three feet of the pipe the soil looked good again.

This testimony established that Shell knew that decomposing pipes caused recurring failures of the contaminated waste sewers. Because Shell knew the history of problems with deteriorating and decomposing pipes, we conclude that Shell must have expected sewer leaks, although Shell did not expect the leaked material to spread very far.

This evidence and its divergent reasonable inferences conflict on whether Shell expected the leaking chemical sewers to damage others' property. We conclude that the mistaken "expect" instructions probably misled the jury on this issue and prejudiced Shell. However, the evidence conclusively established that by 1970 Shell did expect the chemical sewers to leak, even if it did not expect the leaks to damage others' property.

v. The Unlined Basins

Shell's liquid wastes went to four unlined basins, named Basins A, C, D, and E, from 1952 to 1957. There is no dispute that the Army and Shell deposited hazardous materials in the basins. Shell knew that liquid in the unlined basins would seep into the ground.

Basin A, the primary unlined basin, was made by scraping topsoil from a natural depression in the ground and building a dike. The basin was not lined with any substance to prevent effluent from seeping into the ground. In 1943, Basin A started overflowing as the waste volume grew. Between 1950 and 1952, Basins C, D, and E were built the same way as Basin A to catch its overflow. Liquids in the unlined basins obviously seeped into the ground, and chemicals in the basins were believed to evaporate or percolate. Basin C was called "straw bottom" because it would not hold water. A five- to six- foot-deep mixture of soil and clay underlay Basin A; soil under that contained more gravel. Mr. Donnelly testified that he believed any seeping organic chemicals would bind to the clay and gravel.

The chemical sewers carried Shell's liquid wastes to Basin A. Between 1952 and 1956, Shell sent one million tons of its wastes into Basin A. Most of Shell's effluent waste was salt and water. However, Shell handled several hundred organic compounds during its years at the Arsenal. [779]

In June 1954, Shell was informed that crops on a farm two miles northwest of the Arsenal apparently were harmed by some chemical in underground water. The crop damage resembled that caused by excess salt or by a certain herbicide not made at the Arsenal. ^{FN19}

FN19 That herbicide was identified in Basin F in 1959. Spontaneous chemical reactions apparently produced it in the evaporation basins.

After the first crop damage reports, the Army had the University of Colorado (University) study the problem to identify its causes. Dr. Theodore Walker, a geology professor, examined a United States Geological Survey report on the Arsenal area's groundwater geology and asked area farmers about their water problems. The University's November 1956 monthly report stated: "The data obtained from these two sources of information make it evident beyond any reasonable doubt in Dr. Walker's opinion, that the waste disposal practices at the Arsenal are responsible for at least a great part of the contamination of the ground waters in the area northwest of the Arsenal. Although the element or compound has not been determined that is directly responsible for the type of plant damage that is characteristic of crops which have been irrigated with the water, he believes it to be extremely likely that the damaging material is coming from the Arsenal waste products." This was a revised conclusion because Dr. Walker was told the Army's liaison, Mr. Cochran, would not accept the more emphatic original.

Mr. Cochran gave Shell the information in the University's monthly reports, though Shell did not directly get the reports. Earlier, in February 1955, Shell was informed that salts were the only well contaminants that could be detected, though it was apparent that another unknown material was damaging the crops. By July 1955, Shell had been informed that the recommended corrective measures would include sealing the basin bottoms and changing salt waste handling.

In January 1956, the Army asked Shell how it planned to stop discharging salts into the basins. Shell's response ignored the specific request regarding salt elimination. Instead, Shell stated that it had reduced the amount of waste as much as its operations permitted and that it believed the components of its waste water were not becoming a public nuisance. During this time, Shell's chemical products were not detected in water samples from the affected

area.

To correct the problem, the Army began making a new asphalt-lined basin, Basin F, in 1955. However, Shell continued to send its effluent to the unlined basins until 1957, when they were finally drained into Basin F. After Basin F's completion, the unlined Basin A was still used as a collection pool for storm water runoff. In 1966, Shell's chemical manufacturing manager, [780] based in New York, knew that storm water ran into the Arsenal basins and carried contaminants into the ground.

This evidence could easily lead a jury to conclude that Shell should have known that using the unlined basins was highly likely to damage others' property. However, little indicates that Shell expected using these basins would damage property outside the Arsenal before the June 1954 crop damage report. An inference that Shell expected such damage in 1954 or earlier depends primarily on later developments. The mistaken definition of "expected" therefore probably misled the jury in evaluating Shell's knowledge from 1952 through 1954.

However, the record shows very different circumstances after 1954. By July 15, 1955, Shell's Arsenal plant manager knew that waste disposal in the unlined basins was contaminating groundwater outside the Arsenal. In a confidential memorandum on that date, the plant manager informed Shell's head office that the Army's independent consultant would recommend sealing the unlined basins, reducing the effluent flows to keep the basins from spilling over, and eliminating salt from the waste flow. The memorandum stated that "most of these recommendations appear to be a reasonable solution to their present problem" Mr. Knaus testified that in the mid-1950's he knew from local newspapers that Basin A's leaking and the crop problems were related. Nevertheless, Shell continued to send its chemical and salt wastes to the unlined basins until 1957. Moreover, no effort was made to remove the residue left in the unlined basins after draining them into Basin F.

We do not believe it reasonably probable that a properly instructed jury would find that, after 1954, Shell did not expect using the unlined basins would cause damage to others. Thus, we find that the instructional error did not prejudice Shell as to the jury's decision that Shell had no insurance coverage for property damage caused by use of the unlined basins for waste disposal and storm water runoff collection after 1954. We conclude the misinstruction did prejudice Shell's coverage claims for 1952 through 1954.

vi. Basin F

The studies and recommendations made after the unlined basins contaminated the groundwater led the Army to construct the lined waste disposal basin, Basin F. Begun in 1955 and completed in 1956, Basin F was to be a holding pond until the wastes could be disposed of by other means. The basin lining was catalytically blown asphalt sprayed over the excavated [781] ground to build up a rubbery membrane about three-eighths of an inch thick. A one-foot layer of soil over the liner protected it. Basin F was 10 feet deep and covered an area of 93 acres. Later, an earthen dike was built across one corner of the basin, creating a smaller area known as Little F.

While Basin A was being drained into Basin F, Basin F's liner tore at the water line. The tear was fixed and the unlined basins were finally drained into Basin F by September 1957.

The trial record shows a marked conflict over whether Shell knew Basin F was leaking in the mid-1960's. Shell's Arsenal plant manager acknowledged in July 1965 that with disposal of wastes in Basin F, "the chance of contamination of underground waters and of injury to human or animal life exists." In 1966, Shell's agricultural chemical manufacturing manager knew the Army wanted to stop using the basin because it was concerned about the liner and that the basin might be leaking. He also knew that even a small rupture in the basin could allow a significant contaminant release into the surrounding environment.

Robert Silber was with Hyman at the Arsenal from 1947, became Shell's assistant secretary, and remained a Shell consultant until 1967. Mr. Silber testified that he thought, and Shell staff generally knew, that in the mid-1960's a fault in Basin F's liner allowed seepage. Shell Chemical's former president testified that he understood in 1970 that insoluble organic chemicals and solvents would attack Basin F's liner, and that Shell sent wastes containing solvents to Basin F. In early 1970, Shell reports to the Army showed a 100-gallon-per-minute effluent flow into Basin F that contained 9 groups of inorganic substances and 12 groups of organic solvents and compounds.

A December 1969 Army report said the soil cover and liner were missing from test holes in Basin F and Little F. The report suggested that the liner was dissolved by concentrations of hydrocarbons in the waste. Tests at two other locations found the liner intact, though its thickness varied from one-fourth to one-sixteenth of an inch. The report stated the liner was extremely elastic and showed no indication of deterioration. However, the report concluded that Basin F was a groundwater pollution source, but probably not a major one, with an “effective area for leakage” of “no more than 2 or 3 acres and perhaps only a fraction of an acre.” A February 1970 Army report said that Basin F’s distinctive odor had been detected in nearby test wells, that the waste in Basin F was incompatible with the liner material, and that “a potential exists for increased pollution in the future.” On May 20, [782] 1970, the Army’s contract officer hand-delivered to Mr. Knaus a letter which stated, in part: “Our engineers, after studying the results of the monitoring of Lake F, are of the opinion that the protective membrane has deteriorated in a number of places. It is their opinion that this deterioration must be due to the mix of products poured into the lake. It is now their premise that the contamination in Lake F may be oozing into the aquifer. Accordingly, emergency action is now indicated.” The officer wrote down Mr. Knaus’s immediate reaction to the letter and the program it outlined: “We have felt there would be something coming on this sooner or later, but we were hoping we would be able to hold out longer. We have been concerned about this contamination problem for some time. Only the Government could underwrite such a plan as this.”

For its part, Shell relies on evidence that it did not believe that Basin F was leaking. Mr. Donnelly testified that he did not believe the basin ever leaked, although he never checked below the water line, and his inspections did find two places in Little F where the liner had liquefied. More than once, Mr. Donnelly told Mr. Knaus he thought that Basin F was not leaking. Mr. Knaus testified that to avoid harming the liner, Shell never intentionally put concentrated solvents or heavy organic chemicals into Basin F, though some got there. During the time that Shell used Basin F, Mr. Knaus did not believe it was leaking. Mr. Knaus believed that the Army questioned Basin F’s integrity in 1970 to try to end Shell’s favorable waste disposal contract, because the Army continued to use Basin F for over a decade.

Colonel Shear, the Arsenal’s commanding officer from September 1969 to July 1971, did not believe Basin F was leaking, though he knew other Army officers disagreed, because he never had data that affirmatively proved leakage. A 1974-1975 Colorado Department of Health study concluded that although Little F appeared to be leaking, the main body of Basin F appeared to be sound and suitable for disposal of contaminated groundwater. Another 1975 study said it was premature to assume Basin F leaked, as test well analyses were inconclusive.

Dr. William Adcock, a Shell chemical engineer involved in environmental issues at the Arsenal from 1970 to 1982, testified that he thought organic chemicals were the smallest part of Shell’s effluent waste. He did not feel that the effluent’s components would harm Basin F’s liner. However, Shell’s 1970 proposal to the Army for new lined basins included adding a treatment to remove light and heavy insoluble organic chemicals before sending the effluent to a basin. Shell’s proposal stated: “Removal of organic materials will help insure that pond linings are not damaged by chemical attack. Since [783] none of the available lining materials are resistant to all organic chemicals, their removal is essential for successful operation of the evaporative ponds.”

During the 1970’s, Dr. Adcock believed that Basin F was not leaking. From 1970 to 1978, he reviewed groundwater monitoring data that indicated the basin was not leaking. But Shell thought Basin F was the Army’s facility, and so Shell did not inspect the liner. Also, Shell contends that the Army did not give its reports to Shell. However, the Army’s director of facilities for the Arsenal, Mr. Donnelly, discussed waste problems with Shell’s Arsenal management from time to time. In 1969, Shell’s agricultural chemical manufacturing manager also knew about the Army’s reports and conclusions.

The divergent evidence on whether and when Basin F leaked made it reasonably probable that the jury was misled by the misdefinition of “expect.” The jury had powerful evidence that Shell should have known Basin F leaked. But Shell could plausibly deny actual knowledge, from the mid-1960’s to the mid-1970’s, that Basin F polluted groundwater. We conclude that the misinstruction prejudiced Shell’s claim that pollutants escaping from Basin F in the 1960’s constituted a covered “occurrence” under the policies.

However, we find compelling evidence that Shell expected some contamination would escape from Basin F. Shell knew its effluent waste contained chemicals that attacked the asphalt liner and knew that it was deteriorating. By 1970, Shell denied any existing leaks in Basin F at the same time it knew leaks were inevitable. Shell’s knowledge

forecloses any reasonable probability that the jury would have given Shell a more favorable verdict for the years 1970-1982 because of the policies' pollution exclusions.

D. The Effect of the Pollution Exclusions on Prejudice

After 1969, Shell's insurance policies contained several types of pollution exclusions applicable to the Arsenal claims. Most of these clauses excluded coverage for pollution unless the polluting event was "sudden." Travelers' policy excluded coverage if the "emission, discharge, seepage, release or escape [of the pollutant] is either expected or intended" The exclusions are not contingent on whether the insured expected or intended any property damage. Instead, the exclusions depend on the nature of the polluting event and the insured's knowledge or belief that a pollutant would escape. (See *U.S. Fidelity and Guar. v. Star Fire Coals, Inc.*, *supra*, 856 F.2d at p. 34; [784] *Lumbermens Mut. Cas. v. Belleville Ind.*, *supra*, 555 N.E.2d at p. 571; *Technicon Electronics v. American Home* (1989) 74 N.Y.2d 66 [542 N.E.2d 1048, 1050-1051].)

This record convinces us that when a policy required a covered polluting event to be "sudden," Shell was not prejudiced by the erroneous definition of "expect." Except for Shell's claims concerning spills, none of the claimed pollution sources were "sudden" events. Pollutants escaped from the lakes, the waste trenches and drums, the sewers, and the basins through long, continuous, and gradual processes. The history of the Arsenal's pollution leads us to conclude that it was not "sudden."

Moreover, by 1970, Shell expected that each asserted pollution source except the spills would release contaminants into the surrounding soil. Travelers' exclusion applies if the insured expected a contaminant to be released. The exclusion does not depend on a belief that the pollutant will travel far or that its escape will harm others. The exclusion's application requires only that a pollutant's escape from containment be expected. We conclude that by 1970, Shell expected its toxic wastes at the Arsenal would escape from their containment.

Our review of the record shows no reasonable probability that a properly instructed jury would find that Shell had any coverage for the Arsenal claims under policies containing these pollution exclusions. Therefore, we affirm the judgment denying Shell coverage under those policies.

Conclusion and Disposition

Shell's insurance claims for over 30 years of Arsenal pollution required the trial court to decide many issues. The trial court adopted an interpretation of "expected or intended" damage that appeared to have broad support. However, we cannot reconcile an objective, "should have known," meaning for "expected" with the California Supreme Court's *AIU* decision. That opinion emphasized that the ordinary and popular sense of the words used controls insurance policy interpretation unless the parties intended special or technical meanings. (*AIU*, *supra*, 51 Cal.3d at p. 822.) The record here will not support deviating from "expect's" plain meaning, a meaning that does not include "should have known." "[W]hatever the consequences we must accept the plain meaning of plain words." (*United States v. Brown* (1907) 206 U.S. 240, 244 [51 L.Ed. 1046, 1046-1047, 27 S.Ct. 620].)

After reviewing the record, we concluded that the misinterpretation of "expect" probably misled the jury on certain issues involving the policies [785] issued to Shell before 1970. Therefore, the judgment must be reversed in part and remanded. We reverse the judgment on whether the following were property damage sources that constituted "occurrences" covered by policies issued to Shell before 1970: (1) the cooling water lakes; (2) the waste burial trenches and drums on Section 36, but only for those policies in force before 1965; (3) the chemical sewer system; (4) the unlined basins, but only for those policies in force before 1955; and (5) Basin F.

We concluded that the error in defining "expect" does not require us to reverse the judgment on the policies issued to Shell after 1969 with pollution exclusions applicable to the Arsenal pollution. There is no reasonable probability that a jury would find that after 1969, Shell did not expect contaminants to escape from the claimed pollution sources or find that any of those sources were "sudden" polluting events. Therefore, we affirm the judgment on the policies containing those pollution exclusions.

On Travelers' appeal, we hold that the trial court properly decided that OIL does not have to contribute to the defense costs Travelers advanced to Shell. On OIL's cross-appeal, we hold that the trial court properly interpreted

OIL's "occurrence" definition.

The judgment is affirmed in part, reversed in part, and remanded for further proceedings consistent with this opinion. Each party shall bear its own costs on appeal.

White, P. J., and Merrill, J., concurred.