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The Use of Fuel Additives by Growers: A Trigger for CERCLA Liability

by

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The Use of Fuel Additives by Growers: A Trigger for CERCLA Liability?

The use of gasoline and diesel fuel additives intended to improve engine performance and to condition the fuels to keep storage tanks and fuel systems clean is widespread among growers in the United States. Many of these additives contain materials which are listed as hazardous substances under CERCLA, yet CERCLA's strict liability provisions for the costs of cleanup of ground contamination exclude petroleum contaminated soil. This comment examines whether ground contaminated with a mixture of fuel and aftermarket additives containing CERCLA hazardous substances falls outside of CERCLA's petroleum exclusion, thus triggering an unexpected liability for growers for cleanup costs incurred by subsequent land owners.

INTRODUCTION

The Comprehensive Environmental Response Compensation and Liability Act, CERCLA,[1] was not intended to cover oil spills.[2] Accordingly, CERCLA contains an exclusion for petroleum.[3] For instance, a spill of leaded gasoline, even though it contains added tetraethyl lead (TEL) which can cause violent illness or death,[4] was held to be ex-

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[1] 42 U.S.C. §§ 9601-9675 (1994), Comprehensive Environmental Response, Compensation and Liability Act [hereinafter CERCLA].

[2] "The legislative purpose behind the petroleum exclusion is simply that Congress did not intend appropriated Superfund monies to be spent to clean up oil spills, and other releases of 'strictly oil.' " Niecko v. Emro Mktg., 769 F. Supp. 973, 982 (E.D. Mich. 1991).

[3] 42 U.S.C. § 9601(14) (1994). The last sentence of the definition of the term "hazardous substance," known as the petroleum exclusion, provides:

> The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

The same language is also contained in 42 U.S.C. § 9601(33) (1994), definition of pollutant or contaminant.

[4] *See generally* WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL

cluded from CERCLA liability under the "petroleum exclusion."[5] On the other hand, some spills of petroleum fall outside the "petroleum exclusion" and are covered by CERCLA. For instance, spills of transformer oil, which contains added PCB's (polychlorinated biphenyl) which are suspected of causing liver damage, are covered by CERCLA.[6] Therefore, some additives used in petroleum trigger CERCLA liability in spite of the exclusion of petroleum from the Act, while other additives do not trigger such liability. This comment examines whether growers' use of additives in gasoline and diesel fuel will create liability under CERCLA in the event of a spill or tank leak in spite of CERCLA's "petroleum exclusion."

In answering this question, this comment first introduces CERCLA and its liability provisions. Then, the "petroleum exclusion" contained in CERCLA, the exception to the exclusion, and court decisions dealing with the exception to the exclusion are examined. Next, the additives used by growers to enhance the fuels used in their equipment are characterized in relation to the EPA's interpretation of the "petroleum exclusion." Then, the interpretation of the "petroleum exclusion" by the courts is examined and applied to the issue of whether the use of additives by growers will trigger CERCLA liability in the event of a spill. Finally, a judicial balancing test is proposed and clarifying legislation is explored.

Recently, a major agricultural corporation, operating in the San Joaquin Valley of California, purchased a large parcel of farm land on which to expand its crop production. After the purchase, the buyer dis-

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PERSON 96 (1979).

[5] "In my view, the language of CERCLA's 'petroleum exclusion,' contained in 42 U.S.C. § 9601(14) (1994), plainly applies to gasoline, even when, as here, that gasoline contains lead additives." Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 810 (9th Cir. 1989).

[6] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A., to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, on the subject of scope of the CERCLA Petroleum Exclusion Under Sections 101(14) and 104(a)(2) (July 31, 1987) (copy on file with the *San Joaquin Agricultural Law Review*). Other petroleum products containing hazardous substance additives intended to be addressed by the legislation include PCB's in transformer fluid.

In May 1985, the Superfund's largest toxic waste cleanup settlement to date was with Westinghouse Electric Corp., which was expected to spend $75-100 million to clean up PCB-tainted wastes at six dumps near Bloomington, Ind. Casey Bukro, *Superfund's Biggest Cleanup in Indiana,* CHICAGO TRIB., May 21, 1985, at 1.

"They are also suspected of being able to cause liver damage . . . ." Roy Broadbank, *The PCB Peril in Perspective; Disposal of Polychlorinated Biphenyls,* PROCESS ENGINEERING, July 1991, at 41.

covered soil contamination from leaking fuel tanks operated by a prior owner and began a cleanup project lasting several months and costing over $100,000. Contaminated soil was removed, leaving an excavation of 40 feet by 40 feet by 38 ½ feet, which was then backfilled with pea gravel and covered with top soil. The contaminated soil removed was cleaned and put back to use by spreading it out, ten inches thick, over a large area. The corporation did not attempt to seek reimbursement from the previous land owners.[7] One avenue to recoup these costs from the responsible party would have been a claim under Section 107 of CERCLA, were it not for CERCLA's "petroleum exclusion."[8]

In a similar situation, another corporation which had bought contaminated land did attempt to invoke private party liability for cleanup costs provided for in CERCLA. Alan and Marge Meghrig, brother and sister, had operated a gasoline service station on property prior to selling it for $152,000 in 1975 to KFC Western, Inc.[9] At the time of the sale, KFC was operating a Kentucky Fried Chicken franchise there.[10] In 1988, while improving the site, KFC discovered soil contaminated with lead and benzene allegedly from the operation of the Meghrig's gasoline station.[11] The city department of building safety issued a corrective notice ordering KFC to stop all construction on the property

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[7] A letter sent to a representative of this grower on August 21, 1996, requesting permission to cite its experience in this comment is on file with the author. An oral response was received on August 23, 1996, indicating that the grower's corporate legal department had refused to approve the author's request for additional information and would not cooperate in the publishing of its case history if it were named in the publication. Notes of a telephone interview with a representative of this corporation, conducted on August 21, 1996, are on file with the author. The corporation wishes to remain anonymous.

[8] 42 U.S.C. § 9607(a)(2), (4) (1994) provides in pertinent part:

> Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section-
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> . . . .
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> (2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of
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> . . . .
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> (4) shall be liable for —
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> . . . .
>
> (B) any other necessary costs of response incurred by any other person consistent with the national contingency plan.

[9] KFC Western, Inc. v. Meghrig, 28 Cal. Rptr. 2d 676 (Ct. App. 1994).

[10] *Id.*

[11] KFC Western, Inc. v. Meghrig, 49 F.3d 518, 519 (9th Cir. 1995).

pending analysis of the soil and clearance from the department of health services.[12] Analysts confirmed the presence of refined petroleum in the soil, and although KFC neither caused the contamination nor owned the property when the contamination occurred, KFC was ordered to clean up the ground.[13] KFC spent over $211,000 to assess and remove the contaminated soil. The cleanup was completed in 1989. In June 1990, KFC asked the Meghrigs to reimburse the costs.[14] The Meghrigs refused.[15]

Since the scope of CERCLA liability under federal law in the Ninth Circuit had been found not to include gasoline spills,[16] KFC filed a state court case against the Meghrigs in December 1991, alleging 10 separate causes of action for cost recovery including claims under the California Superfund law.[17] The state court quickly dismissed KFC's claim stating that the state superfund law contained an identical petroleum exclusion to that contained in CERCLA, thus preventing KFC's recovery of the cleanup costs.[18]

Section 107 of CERCLA provides for the liability of private persons for state and federal cleanup costs.[19] After a government cleanup, the federal superfund is to be reimbursed by the private parties responsible for the damage.[20] Also, CERCLA requires the federal government to encourage private parties to undertake voluntary cleanup efforts before the federal and state agencies move in.[21] But, even more relevant to this comment, CERCLA allows the recovery of any necessary costs of response incurred by any other person consistent with the national contingency plan.[22] The courts early on concluded that this language established a private right of action on the part of a person who had incurred necessary costs of cleanup,[23] and the courts have been fairly

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[12] *Id.*

[13] *Id.*

[14] *Id.*

[15] *Id.*

[16] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801 (9th Cir. 1989).

[17] CAL. HEALTH & SAFETY CODE § 25317 (West 1996 and 1997 Supp.).

[18] Robert S. Bassman, *The Long Road to the Supreme Court*, J. OF PETROLEUM MARKETING, May 1996, at 40.

KFC Western, Inc. v. Meghrig, 28 Cal. Rptr. 2d 676 (Ct. App. 1994).

[19] 42 U.S.C. § 9607(a) (1994).

[20] *Id.*

[21] John E. Bonine & Thomas O. McGarity, THE LAW OF ENVIRONMENTAL PROTECTION 934 (2d ed. 1992); 42 U.S.C. § 9607(a) (1994).

[22] 42 U.S.C. § 9607(a)(4)(B) (1994).

[23] Walls v. Waste Resource Corp., 761 F.2d 311 (6th Cir. 1985) (citing a collection

liberal in allowing plaintiffs to make vague allegations in the pleadings that they have incurred response costs consistent with the national contingency plan.[24] Therefore, CERCLA provides a vehicle for recovery of cleanup costs from prior owners or operators who can be shown to have contributed to the contamination.

This provision in CERCLA was the subject of the litigation in *KFC*, a private party recovering response costs to address fuel contamination caused by a previous landowner. However, as was the case with the anonymous grower above, the "petroleum exclusion" prevented KFC from recovering cleanup costs from the Meghrigs under the private party liability provisions of CERCLA.[25]

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of cases which established a private right of action).

Artesian Water Co. v. Government of New Castle County, 605 F. Supp. 1348 (D. Del. 1985) (citing a collection of cases which established a private right of action). *See* John E. Bonine & Thomas O. McGarity, THE LAW OF ENVIRONMENTAL PROTECTION 1010-1011 (2d ed. 1992).

See Bunger v. Hartman, 797 F. Supp. 968, 971 (S.D. Fla. 1992).

> A private party must prove four elements before they can prevail in a cost recovery action: (1) the site where the "hazardous substance" is found is a "facility" as per CERCLA's definition of that term, 42 U.S.C. § 9601(9); (2) there has been a "release" or "threatened release" of a "hazardous substance" from the facility, 42 U.S.C. § 9607(a)(4); (3) the "release" or "threatened release" has caused the private party to incur "response costs" that were "necessary" and "consistent with the national contingency plan," 42 U.S.C. § 9607(a)(4)(A) and (B); and (4) the Defendants fall within one of the four classes of parties subject to the liability under the Act.

[24] Ascon Properties, Inc. v. Mobil Oil Co., 866 F.2d 1149 (9th Cir. 1989), insisting that plaintiff plead at least one response cost cognizable under CERCLA, but allowing vague allegations that do little more than track the statutory language.

[25] KFC Western, Inc. v. Meghrig, 28 Cal. Rptr. 2d 676, 680-683 (Ct. App. 1994).

I. THE PETROLEUM EXCLUSION

A. Brief Background[26]

The petroleum exclusion functions by removing petroleum, fractions[27] of petroleum not specifically listed in the Act, and crude oil from the Act's definition of hazardous substances and from the Act's definition of pollutant or contaminant.[28] This has the effect of exempting those who cause petroleum contamination from liability under CERCLA. Congress, however, did not include a definition of "petroleum" or "petroleum fraction" in the Act. The reason for the lack of thoroughness in the drafting of the "petroleum exclusion" pertains to the political climate in which it was adopted.

After Jimmy Carter lost the Presidential election to Ronald Reagan in 1980, Congress was essentially a lame duck until the new leadership assumed its role.[29] There was an effort to adopt new environmental legislation which many felt the Republicans coming into office would not embrace.[30] In this climate, it is not surprising that proposed legislation might avoid burdening industries such as the oil industry in order to circumvent prolonged debate, because there was not much time remaining in the session to adopt such bills.[31] CERCLA, hastily

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[26] For a more complete discussion of the petroleum exclusion *see generally*: Robert N. Aguiluz, *Refining CERCLA's Petroleum Exclusion*, 7 TUL. ENVTL. L J. 41 (Winter 1993); Leo O. Bacher, Jr., *When Oil is Not Oil: An Analysis of CERCLA's Petroleum Exclusion in the Context of a Mixed Oil Spill*, 45 BAYLOR L. REV. 233 (Spring 1993); Roger Armstrong, *CERCLA's Petroleum Exclusion: Bad Policy in a Problematic Statute*, 27 LOY. L.A. L. REV. 1157 (Spring 1994); *CERCLA's Petroleum Exclusion: An Endangered Species*, 25 Env't Rep. (BNA) 1811 (Jan 20, 1995); and William B. Johnson, Annotation, *Determination Whether Substance is "Hazardous Substance" within Meaning of § 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USCS § 9601(14))*, 118 A.L.R. FED. 293, § 11 (1994).

[27] "We also take judicial notice of the meaning of the words 'fraction' and 'petroleum.' Thus, 'fraction' is defined in Webster's Third New International Dictionary Unabridged (1981) to mean 'one of several portions (as of a distillate or precipitate) separable by fractionation and consisting either of mixtures or pure chemical compounds.' " Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 803 (9th Cir. 1989).

"Fractions or cuts are the generic names for all the compounds that boil between any two temperatures, called cut points." LEFFLER, *supra* note 4, at 6.

[28] 42 U.S.C. § 9601(14), (33) (1994).

[29] *See* Roger Armstrong, *CERCLA's Petroleum Exclusion: Bad Policy in a Problematic Statute*, 27 LOY. L.A. L. REV. 1157, 1164-72 (1994).

[30] *Id.*

[31] *Id.*

drafted, was enacted as a compromise among three competing bills,[32] after very limited debate under a suspension of the rules.[33] The haste with which the Act was adopted explains its lack of good, thorough drafting as well as its apparent ambiguities.

B. The Exception to the Exclusion

The petroleum exclusion itself contains an exception. 42 U.S.C. § 9601(14) provides that the term hazardous substance "does not include petroleum, including crude oil or any fraction thereof . . . ." But then, as the wording of the provision continues, it creates an exception to the exclusion with the words, "not otherwise specifically listed or designated as a hazardous substance . . . ."[34] Thus, the Act excludes petroleum unless the petroleum is specifically listed as a hazardous substance under the Act.

To give this concept a factual context, consider *Wilshire Westwood v. Atlantic Richfield Corp.*[35] In *Wilshire,* the plaintiff's complaint alleged that the gasoline stored in leaking underground storage tanks contained additives with hazardous substances, including benzene, toluene, xylene, ethyl-benzene and lead, which leaked from the tanks and contaminated the soil.[36] The plaintiff then alleged that these substances were hazardous substances within the meaning of CERCLA.[37] According to the plaintiffs, the leaks constituted releases of hazardous substances into the environment, thus imposing liability for cleanup costs.[38] The plaintiffs contended further that the petroleum exclusion's plain and unambiguous terms compelled the conclusion that it does not apply to petroleum, crude oil or any fraction thereof containing any of the components which have been designated as hazardous pursuant to any one of the Acts listed in section 9601(14) (A)-(F).[39]

For instance, benzene, a petroleum product, is specifically listed as

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[32] H.R. 7020, 96th Cong., 2d Sess. (1980); H.R. 85, 96th Cong., 1st Sess. (1980); and S. 1480, 96th Cong., 1st Sess. (1979).

[33] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 805-06 (9th Cir. 1989).

[34] 42 U.S.C. § 9601(14), (33) (1994).

[35] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 802 (9th Cir. 1989).

[36] *Id.* (referring to paragraph 6 of the plaintiff's complaint).

[37] 42 U.S.C. § 9601(14) (1994).

[38] 42 U.S.C. § 9601(22) (1994).

[39] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 804 (9th Cir. 1989).

a hazardous substance under CERCLA.[40] Therefore, benzene falls under the exception to the petroleum exclusion even though it is a component of crude oil, which is excluded under CERCLA. It is extracted from crude oil by the solvent recovery process.[41] Further, it would appear that if soil was contaminated with pure benzene it would fall under the exception to the petroleum exclusion in CERCLA, thus imposing liability for cleanup. But what would be the status of soil contaminated with petroleum, such as gasoline, which also contained benzene either as an indigenous component or as an additive?

Benzene and other CERCLA hazardous substances such as ethylbenzene, toluene, and xylene, are indigenous components not only of crude oil, but also of the products made from crude oil such as gasoline and diesel fuel.[42] This poses the question of whether petroleum products such as gasoline and diesel fuel containing CERCLA hazardous substances such as benzene would fall under the exception to the petroleum exclusion, and thus trigger CERCLA liability.

C. Reconciling the Exception to the Exclusion

Litigants, such as the plaintiffs in *Wilshire,* have argued that the exception to the petroleum exclusion, by its plain and unambiguous terms, compels the conclusion that the petroleum exclusion does not apply to petroleum, crude oil, or any fraction thereof containing any of the components which have been designated hazardous.[43] But since virtually all crude oil, gasoline, and diesel fuel contain CERCLA listed hazardous substances, they would fall under the exception to the petroleum exclusion. Under this interpretation, there would be virtually no petroleum to which the petroleum exclusion would apply. For the petroleum exclusion to have any meaning, the exception to the petroleum exclusion cannot be interpreted to apply to crude oil, gasoline, and diesel fuel, because these substances are what is commonly understood to be petroleum. How, then, do courts deal with the unambiguous terms of an exception that apparently swallows the rule that petroleum

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[40] *Id.* at 803. The court takes judicial notice that benzene has been specifically listed or designated pursuant to several of the statutes set forth in 42 U.S.C. § 9601(14)(A)-(F) (1994).

[41] WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 123 (1979).

[42] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 803 (9th Cir. 1989).

[43] *Id.* at 804.

is excluded from CERCLA? An example of the application of the petroleum exclusion by a contemporary court will shed some light.

D. Today's Courts Dealing with the Exception to the Exclusion

Today, courts deal rather perfunctorily with the exception to the petroleum exclusion.[44] LCL Transit Company operated a truck refueling and maintenance facility on leased land for twenty years, from 1963 until 1983.[45] Marriott Corporation bought the land in 1983 and sold it to Caterair International Corp. In 1992, Caterair had 27,335 cubic yards of petroleum-contaminated soil excavated from the site, along with a 20,000-gallon diesel fuel tank, a 500 gallon waste oil tank, and a 500 gallon lube oil tank.[46] Aerial photographs taken in 1970 showed obvious staining surrounding the fuel pump islands, which was believed to have been the result of overfilling of the tanks, leaks from the tanks, or leaks from trucks parked in the area. Caterair sued for reimbursement of private party cleanup costs under CERCLA.[47]

As in the KFC case, benzene was found contaminating the soil. In addition, ethyl-benzene, toluene, and xylene (BETX) and carcinogenic and noncarcinogenic polynuclear aromatic hydrocarbons (PNA) were also found. All of these are specifically listed hazardous substances under CERCLA.[48] However, they are also components of petroleum products.[49] On LCL's motion for summary judgment, the District Court held that since the plaintiff's own evidence identifies petroleum prod-

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[44] The evolution of the rule used by courts today has been the subject of several articles: Robert N. Aguiluz, *Refining CERCLA's Petroleum Exclusion*, 7 TUL. ENVTL. L.J. 41 (Winter 1993); Leo O. Bacher, Jr., *When Oil is Not Oil: An Analysis of CERCLA's Petroleum Exclusion in the Context of a Mixed Oil Spill*, BAYLOR L. REV 233. (Spring 1993); Roger Armstrong, *CERCLA's Petroleum Exclusion: Bad Policy in a Problematic Statute*, 27 LOY. L.A. L. REV. 1157 (Spring 1994); William B. Johnson, *Determination Whether Substance is "Hazardous Substance" within Meaning of @ 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USCS @ 9601(14))*, 76 A.L.R. FED. 293 (1994).

[45] Caterair Int'l Corp. v. LCL Transist Co., No. 94-C1049, 1995 U.S. Dist. LEXIS 7854, at *1 (N.D. Ill. May 1995).

[46] *Id.* at *11-*12 .

[47] *Id.* at *2.

[48] 40 C.F.R. § 302.4 (1996). *See* Table 302.4-List of Hazardous Substances and Reportable Quantities.

[49] Caterair Int'l Corp. v. LCL Transist Co., No. 94-C1049, 1995 U.S. Dist. LEXIS 7854, at *12-*13 (N.D. Ill. May 1995). "The court concludes that there is no genuine issue of material fact that the source of BETX and PNA's was petroleum; that is, there is no evidence from which a reasonable trier of fact could conclude that the source of the BETX and PNA's was anything other than petroleum."

ucts as the one basic source of the contamination, there was no evidence from which a reasonable trier of fact could conclude that the source of the BETX and PNAs was from anything other than petroleum.[50] Because the source of the BETX and PNAs was petroleum, they were indigenous to petroleum and hence covered by the petroleum exclusion.[51]

The court summarized the rule by stating:

> petroleum under CERCLA also includes hazardous substances which are normally mixed with or added to crude oil or crude oil fractions *during the refining process*. This includes hazardous substances the levels of which are increased *during refining*. These substances are also part of "petroleum" since their addition is part of the normal oil separation and processing operations *at a refinery* in order to produce the product commonly understood to be "petroleum."[52]

Thus, *Caterair* demonstrates that CERCLA hazardous materials which are mixed with gasoline and diesel fuel *at the refinery during the refining process* do not bring these fuels outside of the petroleum exclusion.[53] The court does not address additives mixed with fuels *downstream* (further along in the stream of commerce) from the refin-

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[50] *Id.*

[51] *Id.* at *13.

[52] *Id.* at *8 (emphasis added).

[53] *See* Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 810 (9th Cir. 1989): "the petroleum exclusion in CERCLA does apply to unrefined and refined gasoline even through certain of its indigenous components and certain additives during the refining process have themselves been designated as hazardous substances within the meaning of CERCLA."

Cose v. Getty Oil, 4 F.3d 700 (9th Cir. 1993) states: "Both the EPA and our court interpret the petroleum exclusion to apply to petroleum products, even if a specifically listed hazardous substance, such as Chrysene, is indigenous to such products."

Washington v. Time Oil, 687 F. Supp. 529, 532 (W.D. Wash. 1988) states: "The Court is satisfied that some of the contaminants found on the Time Oil property were found in amounts in excess of the amounts that would have occurred in petroleum during the oil refining process . . . . The 'petroleum exclusion,' CERCLA § 104(a)(2), will not operate to exclude Time Oil from liability."

Southern Pacific Trans. v. California, 790 F. Supp. 983, 984-985 (C.D. Cal. 1991) states:

> the petroleum exclusion applies even though CERCLA-listed hazardous substances are indigenous in the petroleum or are additives normally added to the petroleum during the refining process. To hold otherwise would eviscerate the petroleum exclusion because CERCLA-listed hazardous substances—e.g., benzene, toluene, xylene, and ethylbenzene—are constituent elements of petroleum. In addition, sometimes CERCLA-listed hazardous substances—e.g., lead—are added to the petroleum during the refining process.

ery, such as by a grower in the grower's fuel storage tank, in the fuel tank on a farm implement, or by the fuel distributor prior to delivery to the grower.

II. HAZARDOUS SUBSTANCES ADDED TO FUELS DOWNSTREAM[54] FROM THE REFINERY

Fuel additives are not only applied at the refinery, but they are also mixed with fuels downstream from the refinery.[55] "Additives" are added to fuels at wholesale distribution terminals by refiners,[56] in trucks and storage tanks by distributors before delivery,[57] and by growers in storage tanks on farms and ranches. If these additives, by themselves, are found to be hazardous substances or contain hazardous substances[58] within the definition contained in CERCLA and if the additives together with the fuel they were mixed with were spilled or leaked into the ground, would there be liability under CERCLA? Is it likely that the exception to the petroleum exclusion would apply thereby triggering liability to reimburse a private party for the cost of removing the hazardous additive from the soil, and consequently the cost of removing the petroleum along with it? The EPA seems to think so.

A. The EPA's Interpretation

In a 1987 memo from the General Counsel for the EPA to a regional administrator, the General Counsel took the position that:

> [D]iesel oil is exempted as a petroleum product under CERCLA notwithstanding the inherent presence of such fractions as benzene

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[54] "Downstream" in this context means further along in the stream of commerce from the manufacturer/refiner.

[55] INDEX INDUSTRIES INC., NO. 1/57C-796, ADVERTISEMENT FOR BUGOUT, DUAL PHASE BIOCIDE, PRODUCT SERIES 57, "treatment with BUG OUT is recommended AT LEAST TWICE PER YEAR during late spring and early autumn."

[56] Zoufal v. Amoco, No. 91-CV-70895-DT, 1993 U.S. Dist. LEXIS 4920, at *8 (E.D.Mich. March 19, 1993). "Defendant's 'additive expert,' testified in his deposition that additives are blended into Amoco's petroleum products after and at a separate time from the refining process."

[57] Valvtect Petroleum Products, *Advertisement,* THE JOURNAL OF PETROLEUM MARKETING, Oct 1996, at 95. "There are now more than 2,000 fuel distributors, truck stops, marinas and refiners who market gasoline, diesel fuel and heating oil with ValvTect additives."

[58] VALVETECT PETROLEUM PRODUCTS, MATERIAL SAFETY DATA SHEET FOR BIOGUARD 4 (1993): "Product contains Ethylene Thiourea which has been determined to be a teratogen and oncogen in laboratory animals."

> or toluene. Such an approach is consistent with Congressional intent to exempt petroleum products from jurisdiction under CERCLA. However, hazardous substances which are added to or mixed with the petroleum products would be covered under CERCLA, even though they are present in a petroleum product. Examples would include PCB's mixed with oil, pesticides contained in oil-based carrier or propellent, and oil based paints and solvents. If the hazardous substance and the petroleum product are so commingled that, as a practical matter, they cannot be separated, then the entire oil spill would come under CERCLA's jurisdiction.[59]

This interpretation by the EPA clearly takes the position that hazardous substances added to or mixed with petroleum fuels are covered by CERCLA; and excluded from CERCLA are petroleum fuels which have an inherent presence of hazardous petroleum fractions. When growers put additives into fuel in tanks on their property, or when distributors delivering to growers' tanks mix additives into fuel prior to delivery, the added substances likely fall outside the notion of being inherently present in the fuel. If the additives contain hazardous substances which are mixed with petroleum products, the mixture falls squarely within the EPA's interpretation of material covered by CERCLA. Therefore, it is relevant to characterize the fuel additives used by growers.

B. Examples of Fuel Additives Used by Growers Downstream from the Refinery

When the EPA mandated the use of a new, low-sulfur diesel fuel in October 1993,[60] many agricultural users of diesel fuel found that the new formulation fuel damaged the elastic material used to make the "O" rings which seal the fuel systems in tractors and farm implements.[61] This resulted in fuel leaks and damage to fuel injector pumps.[62] For example, John Deere warned consumers and dealers[63] that low-sulfur, low-lubricity diesel fuels do not provide adequate lubrication and that premature fuel injection system failures caused by using low-lubricity, low-sulfur diesel fuels are not covered by either

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[59] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, on the subject of applicability of CERCLA to contamination of ground water by diesel oil (Dec. 2, 1982) (on file with the *San Joaquin Agricultural Law Review*).

[60] 42 U.S.C. § 7545(I)(1) (1994).

[61] John Stromnes, *Truckers Sputter at Fuel Rule,* MISSOULIAN (Missoula, MT.) Feb. 27, 1994, at 1.

[62] *Id.*

[63] JOHN DEERE & CO., SERVICE INFORMATION BULLETIN, NO 93-4-45-6, (1993).

John Deere or the fuel injection pump manufacturer.[64] Deere recommended its own special additive to add lubrication to diesel fuel.[65] Injection pump manufacturers, such as Stanadyne, extensively researched the lubricity problem and also offered an additive.[66] One company, Rancor, a manufacturer of fuel filters, recommended mixing used crankcase oil in the diesel fuel in a 1-to-5 ratio.[67] Many farmers elected to use the old home remedy of mixing automatic transmission fluid in diesel fuel.[68]

As a result of these warnings and reports of engine problems with the low-sulfur diesel fuel, many growers elected to treat the diesel fuel stored in their fuel storage tanks with one of the several available additives, which were promoted as being able to restore the original characteristics to the new fuel and prevent engine damage.[69] These growers could have "bought" more than a fuel additive, if they later find that their tank has leaked. If a court should find that the presence of the additive places the fuel outside CERCLA's petroleum exclusion, these growers could find that what they have "bought" is expensive litigation and liability under CERCLA's cleanup provisions. Since there are no cases directly dealing with soil contaminated with additives containing hazardous materials mixed with petroleum fuels by entities other than the refinery, how will the courts approach such a fact situation in a suit for private party reimbursement for cleanup costs under CERCLA? To answer this question, it is necessary to examine the older cases which have served to define the petroleum exclusion.

III. Examining Sources of Interpretation of the Petroleum Exclusion

To determine the proper application of the petroleum exclusion to additives mixed with fuel downstream from the refinery, it is necessary to examine how it has been interpreted. The petroleum exclusion has required judicial and administrative interpretation to determine its scope because Congress did not formulate a clear definition of petro-

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[64] John Stromnes, *Truckers Sputter at Fuel Rule,* Missoulian (Missoula, MT.) Feb. 27, 1994, at 1.

[65] *Id.*

[66] *Id. See* Stanadyne Diesel Systems, Service Letter 287 (1993).

[67] John Stromnes, *Truckers Sputter at Fuel Rule,* Missoulian (Missoula, MT.), Feb. 27, 1994, at 1.

[68] *Id.*

[69] Schaeffer Specialized Lubricants Co., *Sales Brochure,* Diesel Treat 2000.

leum, and the Congressional Record provides little legislative history to explain the exclusion.[70] The cases have had what appear to be contradictory results. For instance, courts have held that lead added to gasoline falls within the exclusion, while lead found in used oil in concentrations less than that in new oil falls outside the exclusion.[71]

There are three sources for interpretation of the petroleum exclusion: Congress, the EPA, and the courts. Congress has provided very little legislative history, and the EPA has not directly addressed the question of fuel additives outside of the refinery process. The courts have decided only a few reported cases, and they generally tend to follow the interpretations of the EPA's general counsel. Yet, difficult questions need to be answered in order to provide useful guidance to growers and petroleum distributors using fuel additives.

A. Legislative History and Statutory Construction

Congressional sources for the interpretation of the petroleum exclusion can be divided into two areas: the history of the legislation and the construction given to the statute itself.

1. Legislative History

As discussed above, CERCLA was adopted in 1980 by a lame duck, Democratic Congress racing to enact environmental legislation before the newly elected Republicans came into office.[72] PCBs contained in transformer oil provide a good example of the type of perceived environmental threat Congress wanted to address.

During the period surrounding CERCLA's adoption, PCBs (polychlorinated biphenyls) were considered a serious environmental threat,[73] and legislators wanted to be assured that CERCLA would not

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[70] Robert N. Aguiluz, *Refining CERCLA's Petroleum Exclusion,* 7 TUL. ENVTL. L.J. 41 (Winter 1993).

[71] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801 (9th Cir. 1989). The court held that "CERCLA's 'petroleum exclusion' contained in 42 U.S.C. § 9601(14), plainly applies to gasoline, even when, as here, that gasoline contains lead additives."

City of New York v. Exxon Corp., 744 F. Supp 474 (S.D.N.Y. 1990). The case involved a waste oil emulsion containing cadmium, chromium and lead in concentrations less than that of virgin oil. Yet, the court found that these substances were added as a result of an industrial process of the defendant rather than the refining process and, therefore, created a liability under CERCLA.

[72] *See* Roger Armstrong, *CERCLA's Petroleum Exclusion: Bad Policy in a Problematic Statute,* 27 LOY. L.A. L. REV. 1157, 1164-72 (1994).

[73] Roy Broadbank, *The PCB Peril in Perspective; Disposal of Polychlorinated Bi-*

exclude spilled transformer oil which is manufactured by adding PCBs to petroleum.[74] At the same time, Congress wanted to avoid having the new law burden the oil industry, which would invite extended debate on the issue and perhaps prolong the enactment of CERCLA beyond the remaining term.[75] This would effectively end any hope of getting it passed.[76] It is not surprising, then, to find that the petroleum exclusion was added to the bill to placate the oil industry at the same time that some legislators were making statements to the effect that PCBs in transformer oil would be covered by the new law.[77] It is this conflict between wanting to exclude petroleum on one hand and, simultaneously, to include the spills of as many hazardous materials as possible, including those commingled with petroleum,[78] on the other hand, that leads to the confusion inherent in the petroleum exclusion.

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phenyls, PROCESS ENGINEERING, July 1991, at 41.

> Estimates in 1976 put total cumulative US production up to that time at 1.4 billion pounds of which 1.25 billion pounds were used in the US. Of this, some 750 million pounds were thought to be still in service in 1976, while 290 million pounds were in dumps and landfills, 55 million pounds bad been destroyed and about 150 million pounds were dispersed in soil, water, air and sediments.
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> . . . .
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> They are also suspected of being able to cause liver damage and an increase of the level of fat in the blood.

[74] 126 CONG. REC. S14963 (daily ed. Nov. 24, 1980) (statement of Sen. Randolph): "Other petroleum products containing hazardous additives intended to be addressed by the legislation include PCB's in transformer fluid." 126 CONG. REC. H9448 (daily ed. Sept. 23, 1980) (statement of Sen. Mitchell): "The illegal disposal of PCB's in North Carolina described by Senator Mitchell was a result of the spraying of 131,000 gallons of PCB-contaminated waste oil along a roadway."

[75] 126 CONG. REC. H11796 (daily ed. Dec. 3, 1980) (statement of Rep. Mikulski): "I realize that it is disappointing to see no oil-related provision in the bill, but we must also realize that this our only chance to get hazardous waste dump site cleanup legislation enacted."

[76] *See* Roger Armstrong, *CERCLA's Petroleum Exclusion: Bad Policy in a Problematic Statute*, 27 LOY. L.A. L. REV. 1157, 1164-1165 and 1171 (1994).

[77] 126 CONG. REC. S14963 (daily ed. Nov. 24, 1980) (statement of Sen. Randolph): "Other petroleum products containing hazardous additives intended to be addressed by the legislation include PCB's in transformer fluid." 126 CONG. REC. H9448 (daily ed. Sept. 23, 1980) (statement of Sen. Mitchell): "The illegal disposal of PCB's in North Carolina described by Senator Mitchell was a result of the spraying of 131,000 gallons of PCB-contaminated waste oil along a roadway."

[78] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, on the subject of Applicability of CERCLA to Contamination of Ground Water by Diesel Oil (Aug. 31, 1982) (on file with the *San Joaquin Agricultural Law Review*).

The United States Court of Appeals for the Ninth Circuit, in 1989, found that "there is virtually no legislative history contemporaneous with the enactment of CERCLA directly relevant to the scope of the petroleum exclusion."[79] A quote sometimes cited[80] in the cases is: "crude oil and including fractions of crude oil which are not otherwise specifically listed or designated as hazardous substances under subparagraphs (A) through (F) of the definition, is excluded from the definition of a hazardous substance. The reported bill does not cover spills or other releases *strictly of oil.*"[81] This quote, emphasizing the "strictly of oil" language, can be used to bolster the position that the exclusion does not include substances at levels which exceed those normally found in petroleum products or substances not normally found at all in such products. EPA General Counsel noted in his interpretation that the petroleum exclusion will not apply to mixtures of petroleum and other toxic material since these would not be releases "strictly of oil."[82]

In summary, the legislative history clearly provides that spills "strictly of oil" are not covered by CERCLA. This would seem to have been included to placate the oil industry. At the same time, however, there is history indicating that at least some hazardous materials are covered by CERCLA, even when contained in petroleum products. Thus, the problem is one of determining when the hazardous materials are inherent in the oil, apparently making it proper for the mixture to fall under the exclusion, and determining when the hazardous materials are combined with petroleum, making it proper to bring their spillage within the scope of CERCLA.

In the case of fuel additives, this limited legislative history supports two conclusions. First, that additives applied to the fuel after the refinery process would not be covered by the petroleum exclusion because they presumably do not occur naturally in petroleum fractions. Second, that additives are an inherent part of what is commonly known as petroleum and therefore should be excluded under CERCLA.

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[79] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 805 (9th Cir. 1989).

[80] *Id.* at 806. *See also* Niecko v. Emro, 769 F. Supp. 973, 982 (E.D. Mich., July 2, 1991).

[81] S. REP. NO. 96-848, 96th Cong., 2d Sess. (1980) (emphasis added).

[82] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, on the subject of scope of the CERCLA Petroleum Exclusion under Sections 101(14) and 104(a)(2) (July 31, 1987) (copy on file with the *San Joaquin Agricultural Law Review*).

2. Statutory Construction

The plain language of a statute affords the basis for interpreting it.[83] Here, the plain language of the petroleum exclusion provides for exclusion of "petroleum" including "crude oil" or any "fraction" thereof which is not otherwise specifically listed or designated as a hazardous substance under the Act.[84] It would therefore seem that petroleum fractions which are listed hazardous substances under the Act fall outside of the exclusion and all other petroleum falls within the exclusion. A problem arises, however, when consideration is given to what "petroleum fractions" actually are.

An EPA memorandum cites both Webster's and Random House dictionaries as providing definitions of petroleum and petroleum fractions as a solution of hydrocarbons occurring naturally in rock strata which, when distilled, yields various petroleum products.[85] Actually, petroleum fractions are groups of compounds, each group being based on its boiling temperature range.[86] Water boils at 212° Fahrenheit because the chemical compound H_2O boils at that temperature.[87] Unlike water, crude oil is not *a single* chemical compound, but *thousands* of different compounds each with its own boiling temperature.[88] Each petroleum fraction contains many different compounds.[89]

Some petroleum compounds, such as benzene, are specifically listed as hazardous in CERCLA.[90] Benzene is a specific hydrocarbon mole-

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[83] "We have stated time and again that courts must presume that a legislature says in a statute what it means and means what it says there." Dep't of Defense v. FLRA, 510 U.S. 487, 502 (1994), quoting Connecticut Nat'l Bank v. Germain, 503 U.S. 249 (1992).

[84] 42 U.S.C. § 9601(14) (1994).

[85] Memorandum from A. James Barnes, Acting Counsel, E.P.A., to Sheldon M. Novick, Regional Counsel, Region III, on the subject of applicability of the CERCLA Petroleum Exemption to gasoline spills (Aug. 12, 1983) (copy on file with the *San Joaquin Agricultural Law Review*).

[86] WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 6 (1979).

[87] *Id.*

[88] *Id.*

[89] "Fractions or cuts are the generic names for all the compounds that boil between any two temperatures, called cut points." WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 6 (1979).

[90] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 803 (9th Cir. 1989). "It is undisputed that benzene . . . are hazardous substances, having been specifically listed or designated pursuant to several of the statutes set forth in Section 9601(14) (A)-(F)."

cule, C_6H_6.[91] It is found in crude oil and in many petroleum products consisting of groups of compounds.[92]

Clearly, the plain language of the petroleum exclusion is ambiguous. On one hand, it excludes from CERCLA liability crude oil and petroleum, and on the other hand, it includes under CERCLA liability petroleum fractions containing hazardous substances. Given that petroleum fractions contain many compounds, some of which are CERCLA listed hazardous substances, as is benzene, then most, if not all, petroleum fractions would not fall within the petroleum exclusion. This interpretation would render the petroleum exclusion a nullity.

A rule of statutory construction prefers the interpretation which gives meaning to the statute as opposed to an interpretation which emasculates a statute.[93] For example, the EPA's General Counsel's interpretation finds that gasoline is excluded from CERCLA liability, even though it is a blend of various fractions, including CERCLA listed hazardous substances, and has additives.[94] The reasoning is that to do otherwise would make the petroleum exemption a nullity.[95]

In summary, the plain language of the petroleum exclusion is ambiguous. On the one hand, since petroleum is excluded, gasoline or diesel, and gasoline or diesel with additives, even additives containing CERCLA hazardous substances, should be excluded from CERCLA. To do otherwise fails to give meaning to the plain language of the petroleum exclusion. On the other hand, if the gasoline or diesel, both of which are petroleum fractions, contain CERCLA-listed hazardous substances, then the fraction is not included in the petroleum exclusion according to the plain language of the statute.

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[91] BILL D. BERGER & KENNETH E. ANDERSON, MODERN PETROLEUM, A BASIC PRIMER OF THE INDUSTRY 234 (1978).

[92] *Id.* at 209. "In a typical batch run, the crude would begin to vaporize at 180°F. The temperature of the still would gradually be brought up to 1,000°F. The lightest product or fraction (the first portion of the crude to vaporize), was gasoline of 72°-74°API gravity. The next was a 62°-65°API naphtha or benzene."

[93] Marsano v. Laird, 412 F.2d 65 (2d Cir. 1969); United States v. Smith, 209 F. Supp. 907 (E.D. Ill. 1962). These citations are from: Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, on the subject of applicability of the CERCLA Petroleum Exemption to gasoline spills (Aug. 12, 1983) (copy on file with the *San Joaquin Agricultural Law Review*).

[94] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[95] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

B. Agency Interpretation

The United States Court of Appeals for the Ninth Circuit has found that the EPA's interpretation of the scope of the petroleum exclusion should be accorded considerable deference, especially because of the virtual absence of contemporaneous legislative history.[96] When the power of an administrative agency to administer a congressionally-created program requires the formulation of policy and the making of rules to fill any gap left by Congress, such regulations are given controlling weight unless they are arbitrary, capricious or manifestly contrary to the statute.[97] Further, deference to administrative interpretation of a statute is especially due where the interpretation involves a contemporaneous construction of a statute by the people charged with the responsibility of setting its machinery in motion and making the parts work efficiently and smoothly.[98] Here, 42 U.S.C. § 9602 (a) directs the administrator to promulgate and revise regulations designating hazardous substances. This section, it has been argued, empowers the EPA to render conclusive decisions on what should or should not be considered a hazardous substance.[99]

The General Counsel of the EPA issued a series of three memoranda from 1982 to 1987 regarding the scope of the petroleum exclusion which are given substantial deference by the courts.[100] The first opinion of the EPA's General Counsel, from December 2, 1982, involves the applicability of CERCLA to diesel fuel.[101] The memorandum is a response to a request for guidance from a regional administrator regarding CERCLA liability for diesel fuel spills in New

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[96] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 810 (9th Cir. 1989).

[97] Chevron U.S.A., Inc. v. NLRB, 467 U.S. 837, 844 (1984).

[98] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 809 (9th Cir. 1989) (quoting Udall v. Tallman, 380 U.S. 1, 16 (1965)).

[99] *Id.* "The United States argues that by implication the EPA is empowered to render conclusive decisions on what should or should not be considered a hazardous substance under CERCLA."

[100] *Id. See* City of New York v. Exxon, 766 F. Supp. 177, 186 (S.D.N.Y. 1991). Cose v. Getty Oil, 4 F.3d 700, 704 (9th Cir. 1993); United States v. Western Processing, 761 F. Supp. 713, 721 (W.D. Wash. 1991): "As the agency with the expertise to fulfill the mission of administering CERCLA's regulatory program, the EPA's interpretations of the petroleum exclusion are entitled to considerable deference;" Mid-Valley Bank v. North Valley Bank, 764 F. Supp 1377, 1383 (E.D. Cal. 1991); Southern Pacific v. Caltrans 790 F. Supp. 983, 985 (C.D. Cal. 1991).

[101] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

Mexico.[102] The opinion concludes that diesel fuel is exempted as a petroleum product under CERCLA notwithstanding the inherent presence of such fractions as benzene or toluene.[103] However, in this opinion the General Counsel recognized the "added to or mixed with" theory.[104] This theory states that hazardous materials added to or mixed with petroleum will be subject to CERCLA liability.[105] The examples given in the opinion include PCB's added to transformer oil, pesticides mixed into a petroleum-based carrier, oil based paint and oil based solvents.[106] The opinion states that if the hazardous substances are so commingled with the petroleum that, as a practical matter they cannot be separated, the hazardous material is subject to CERCLA liability and the petroleum will be cleaned up along with the hazardous material.[107]

There are two important exceptions to the "added to or mixed with" theory contained in the memorandum. First, the interpretation reserves judgment on the exclusion from CERCLA of hazardous materials which are "added solely to affect the characteristics of the product as an energy source."[108] This is an important concept which would apply to the addition of additives to fuels which are used to improve performance. However, it would not appear to cover additives,

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[102] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[103] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[104] The term "added to or mixed with theory" was coined by the author.

[105] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[106] Memorandum from Robert Perry, Assoc. Administrator & Gen Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59, states:

> However, hazardous substances which are added to or mixed with the petroleum products would be covered under CERCLA even though they are present in a petroleum product. Examples would include PCB's mixed with oil, pesticides contained in an oil-based carrier or propellent, and oil-based paints and solvents (footnote omitted). If the hazardous substance and the petroleum product are so commingled that, as a practical matter, they cannot be separated, then the entire oil spill would come under CERCLA's jurisdiction.

[107] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[108] Memorandum from Robert M Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59. "A somewhat different case may be presented by the addition of a hazardous substance to petroleum solely to affect its characteristics as an energy source. We reserve judgment on this specific situation."

such a biocides,[109] which extend the storage life of fuels.[110] The second exception is the "trivial amounts exception."[111] The interpretation holds that trivial amounts of hazardous substances are not covered by CERCLA if the threat to health and the environment exists only from the petroleum in the mixture.[112] In making this determination, the hazard from the petroleum is not to be considered.[113] This exception could exempt from CERCLA liability fuel spills containing additives in trivial amounts, provided the threat to the environment or to health is posed solely from the fuel. However, if the material used in these additives was hazardous to such a degree or existed in sufficient amounts that their presence in soil poses a threat to groundwater, and thereby to human and animal health, CERCLA liability would be invoked.[114] Therefore, evaluation of these exceptions is an important consideration in any case involving contamination from fuel with additives.

The second memorandum was issued August 12, 1983,[115] and contained an interpretation recognizing the "inherent presence" concept.[116] This memorandum is a response to the counsel for Region III as to whether the EPA has authority to use Hazardous Response Fund money to respond to gasoline spills.[117] In his response, General Counsel recognizes that at the refinery raw gasoline is blended with petroleum fractions such as benzene to make blended gasoline, which is sold as a motor fuel.[118] The amount of hazardous substance in the

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[109] A fuel microbiocide prevents the growth of bacteria and fungi which could cause filter plugging and maintenance problems. *See* INDEX INDUSTRIES INC., NO. 1/57C-796, ADVERTISEMENT FOR BUGOUT, DUAL PHASE BIOCIDE, PRODUCT SERIES 57.

[110] INDEX INDUSTRIES INC., NO. 1/57C-796, ADVERTISEMENT FOR BUGOUT, DUAL PHASE BIOCIDE, PRODUCT SERIES 57.

[111] The term "trivial amounts exception" was coined by the author.

[112] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59, stating: "We would not recommend asserting CERCLA jurisdiction where the hazardous substance is present in only trivial amounts and the threat to the health or the environment is posed solely by a petroleum product."

[113] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[114] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A. to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[115] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[116] The term "inherent presence" concept was coined by the author.

[117] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[118] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

blend can exceed that which would be found in the raw gasoline fraction alone.[119] Therefore, it is not the inherent presence of benzene in the raw gasoline fraction that regional counsel contends triggers CERCLA liability. Rather, the blending of additional benzene in the manufacturing process at the refinery increases the amount of benzene to a level above that which would otherwise occur in the raw gasoline fraction.[120]

General Counsel recognizes that a literal interpretation of the statute would exclude virtually all gasoline sold as motor fuel from the exemption because it is a blend of fractions which contain hazardous substances at levels above that in raw gasoline.[121] The memorandum concludes that these blends of substances which include hazardous substances such as benzene, a CERCLA-listed hazardous material, are nonetheless excluded from CERCLA liability because if one were to interpret the exemption to only apply to raw gasoline, the exemption would become a virtual nullity since nearly all gasoline sold in the United States is blended gasoline.[122] The memorandum then cites *Marsano v. Laird*[123]in which the court held "an interpretation which emasculates a provision of a statute is not to be preferred."[124]

The memorandum therefore supports the position that the addition of hazardous substances at the refinery in concentrations above that present in petroleum fractions will not trigger CERCLA liability. It is important to note that the hazardous substances being added are themselves derived from crude oil and, therefore, are "inherently present"

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[119] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[120] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85, stating:

> Under your interpretation, the only form of gasoline which fits within the petroleum exception is the raw gasoline which is separated from the crude oil during the first step of the refining process. Once the raw gasoline is blended with reformate the exception no longer applies. You take this position because the level of benzene and other chemicals which are identified as hazardous substances in the blended gasoline is higher than levels found in the raw gasoline. I do not understand you to contend that the presence of benzene and other hazardous substances in raw . . . gasoline takes that product out of the scope of the petroleum exemption.

[121] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[122] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[123] Marsano v. Laird, 412 F.2d 65 (2d Cir. 1969).

[124] *Id.*

in petroleum.[125] The memorandum does not address additives which are not inherently present in petroleum.

The memorandum concludes by suggesting that if the EPA wanted to use the Superfund to respond to gasoline spills, the EPA could simply list gasoline as a hazardous substance under the Act.[126] This would bring gasoline, as a petroleum fraction, within the scope of the exception to the petroleum exclusion.

The third EPA General Counsel memorandum, issued July 31, 1987, concerns CERCLA applicability to used oil.[127] General Counsel proposes the "indigenous substance exception"[128] in this memorandum.[129] An assistant administrator asked whether used oil which is contaminated with hazardous substances is considered "petroleum" under CERCLA and thus excluded from CERCLA response authority and liability.[130] The issue discussed in the memorandum was to what extent contaminants found in used oil, which are not found in crude oil or refined petroleum fractions, are also "petroleum" and therefore excluded from CERCLA liability.[131]

The memorandum concludes that waste oil, to which CERCLA-listed hazardous substances have been added outside the refinery process, is not excluded from CERCLA.[132] Further, it is irrelevant whether the hazardous substance was added by use or was an intentional addition.[133] Excluded, however, are hazardous substances which are normally mixed with crude oil or fractions *during the refinery process,* and are a part of the normal separation and processing operations

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[125] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[126] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85.

[127] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[128] The term "indigenous substance exception" was coined by the author.

[129] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82. "We believe that an interpretation of 'petroleum' to include only indigenous, refinery-added hazardous substances is the interpretation of this provision which is most consistent with the Congressional intent."

[130] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[131] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[132] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[133] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

at a refinery in order to produce what is normally called petroleum.[134] The opinion specifically distinguishes between petroleum as the substance that leaves the refinery, and hazardous substances added to it prior to, during, or after use.[135] Thus, the "indigenous substance exception" suggests that additives put in fuel outside of the refinery process fall outside the petroleum exemption.

The EPA's interpretations of CERCLA present two views toward the question of CERCLA liability for fuel additives. First, the opinions of the EPA's General Counsel appear to be quite definite in regard to hazardous substances which are not indigenous to the refinery process, not inherent in petroleum fractions, or added after the refinery process and prior to use. That is, it would appear that CERCLA covers fuel with additives applied outside of the refinery. On the other hand, if the additive is used solely to affect characteristics of the fuel as an energy source or in trivial amounts, the mixture may be excluded under CERCLA. Court cases following these General Counsel interpretations give additional guidance to the question of CERCLA liability for additives in fuels.[136]

C. CERCLA Petroleum Exclusion Court Cases

The courts have never directly addressed the question of CERCLA liability for cleanup costs associated with ground contaminated by petroleum fuel containing additives which were mixed with the fuel at a point away from the refinery by a party other than the refiner. The cases have held that CERCLA liability is not triggered by hazardous substances added at the refinery.[137] On the other hand, cases hold that hazardous substance contaminants in used or waste oil do trigger CERCLA liability.[138]

Lead additive mixed with gasoline at the refinery was the subject of the first appellate case in which a court addressed the petroleum exclusion: *Wilshire Westwood Assocs.* v. *Atlantic Richfield Corp.*[139] The case

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[134] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[135] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[136] The terms "inherent presence concept," "added to or mixed with theory," "trivial amounts exception" and "indigenous substance exception" were coined by the author.

[137] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801 (9th Cir. 1989).

[138] United States v. Alcan Aluminum, 964 F.2d 252, 267 (3d Cir. 1992).

[139] Leo O. Bacher, Jr., *When Oil is Not Oil: An Analysis of CERCLA's Petroleum*

involved underground storage tanks which had leaked gasoline containing lead additive into the ground.[140] Lead in the form of tetraethyl lead (TEL) increases the octane number of gasoline.[141] TEL is a very toxic chemical, and in low concentrations can induce violent illness or death.[142]

At first, the district court held that there would be liability under CERCLA for the costs of cleaning up the lead additive, and consequently the gasoline along with it.[143] Making reference to water based paint with lead, the District Court concluded that there was no reason to treat lead differently when it is released as a part of gasoline from when it is released in any other form. The petroleum exemption did not apply to leaded gasoline since lead was an additive to, rather than a fraction of, petroleum.[144]

Then, the district court reconsidered the case a year later because of the Memorandum dated July 31, 1987, from the General Counsel of the EPA.[145] Based on this memorandum, the district court reversed itself citing the EPA interpretation which concludes that the petroleum exclusion includes hazardous substances added to petroleum as part of the refinery process.[146]

The case went to the Ninth Circuit on appeal.[147] Here, the court held that statutory construction of the plain language of the petroleum exclusion requires the exclusion of gasoline from CERCLA, and that to find otherwise would render the exclusion a nullity.[148] Finally, the court found that, while unnecessary to its opinion, the legislative his-

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Exclusion in the Context of a Mixed Oil Spill, BAYLOR L. REV. 235 (Spring 1993).

[140] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 802 (9th Cir. 1989).

[141] WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 96 (1979).

[142] *Id.*

[143] Wilshire Westwood Assocs. v. Atlantic Richfield, No. CV-87-2210-RMT (C.D. Cal. Aug. 7, 1989).

[144] *Id.*

[145] Wilshire Westwood Assocs. v. Atlantic Richfield Corp., 881 F.2d 801, 802 (9th Cir. 1989).

[146] *Id.*

[147] *Id.*

[148] *Id.* at 804.

> the application of the standards governing statutory construction to the words of the petroleum exclusion requires us to exclude gasoline, even leaded gasoline, from the term "hazardous substance" for purposes of CERCLA. Any other construction ignores the plain language of the statute and renders the petroleum exclusion a nullity.

tory and agency interpretation were also consistent with its finding.[149]

The discussion pertaining to statutory construction, legislative history, and EPA interpretation in the opinion is consistent with the "inherent presence" theory. That is, lead is inherently present in crude oil and petroleum fractions, so it is "petroleum" as defined by the statute. However, this does not explain the exception for TEL (tetraethyl lead), which is not a refinery-manufactured blend component nor inherently present in petroleum fractions.[150] The court does not expand on its reasoning for including the TEL additive other than to apparently rely on the EPA interpretation that, by the statute's plain language, "petroleum" includes substances "normally mixed with or added to crude or fractions during the refining process as a part of normal processing operations at a refinery in order to produce what is normally called petroleum."[151] Although TEL is an additive, it is mixed in at the refinery and the case holds that, in such a situation, the mixture is excluded from CERCLA because as an indigenous substance the additive is part of the petroleum Congress intended to exclude from CERCLA liability.[152] The open question remaining is whether a court would expand this finding to include additives put in the fuel away from the refinery by parties other than the refiner.

In *United States* v. *Western Processing Co.*,[153] GATX, a company, sent sludge from its petroleum storage tanks to Western Processing Co. The sludge consisted of petroleum residue, sand, and rust from the storage tanks. Because the steel tanks contained chromium, nickel, and other metals, the scale and rust from the tank walls contained oxides of chromium, nickel and other metals.[154] Chromium and nickel are listed as hazardous substances under CERCLA.[155] The court cited the EPA memorandum[156] and concluded that only indigenous, refinery-ad-

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[149] *Id.* at 805. "Although our conclusion regarding the plain meaning of the scope of the petroleum exclusion makes unnecessary resort to the next step in statutory construction, legislative history . . . we are persuaded that the legislative history supports our plain meaning construction."

[150] WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 98 (1979). Although elemental lead does exist in crude oil and petroleum fractions, it is doubtful that they contain significant amounts of TEL.

[151] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[152] Wilshire Westwood Assocs. v. Atlantic Richfield Corp. 881 F.2d 801 (9th Cir. 1989).

[153] United States v. Western Processing Co. 761 F. Supp. 713, 715 (Wash. 1991).

[154] *Id.* at 717.

[155] *Id.*

[156] Memorandum from Francis S. Blake, Gen. Counsel, E.P.A. to J. Winston Porter,

ded hazardous substances fall within the definition of "petroleum" which is excluded from CERCLA, and that substances are not shielded from Superfund response and liability merely because they are added, intentionally or by use, to petroleum products.[157]

Western Processing, then, would limit the scope of the petroleum exclusion to indigenous, refinery added additives. Additives mixed with the fuel away from the refinery would be comparable to the chromium, nickel, and other metals in GATX's sludge which were found to fall outside of the petroleum exclusion.

The District Court in *Southern Pacific* v. *Caltrans*[158] summarized the holdings in *Wilshire* and *Western Processing* in holding that the petroleum exclusion of CERCLA covers all forms of petroleum, including crude oil and any fractions thereof, and also including petroleum fuels such as gasoline and diesel fuel, petroleum oils, and other refined petroleum products.[159] Further, this is so even if CERCLA-listed hazardous substances are indigenous to the petroleum or are placed in the fuel as additives normally added to the petroleum during the refining process.[160] Again, the court limits the scope of the petroleum exclusion to additives normally added at the refinery and is silent on the question of additives placed in the fuel away from the refinery.

The United States Court of Appeals for the Third Circuit, in *United States* v. *Alcan Aluminum*,[161] held that the petroleum exclusion was intended for oil spills, not for releases of oil which have become infused with hazardous substances through use.[162] In this case, Alcan's process involved hot-rolling of ingots through an emulsion of 95% water and 5% mineral oil. During the process, fragments of the ingots, which contained copper, chromium, cadmium, lead and zinc, broke off into

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Assistant Administrator for Solid Waste and Emergency Response, *supra* note 82.

[157] United States v. Western Processing Co. 761 F. Supp. 713, 719 (W.D.Wash. 1991):

> We believe that an interpretation of "petroleum" to include only indigenous, refinery-added hazardous substances is the interpretation of this provision which is most consistent with Congressional intent. The language of the provision, its explanation in the legislative history, and the Congressional debates on the final Superfund bill clearly indicate that Congress had no intention of shielding from Superfund response and liability hazardous substances merely because they are added, intentionally or by use, to petroleum products.

[158] Southern Pacific v. Caltrans, 790 F. Supp. 983, 987 (C.D.Cal. 1991).

[159] *Id.*

[160] *Id.*

[161] United States v. Alcan Aluminum, 964 F.2d 252, 267 (3d Cir. 1992).

[162] *Id.*

the emulsion. The material was filtered before being disposed of, but some of the contaminants remained.[163] Alcan alleged that the contaminants were at concentration levels below the levels of these compounds found in virgin oil.[164] The court held that a plain reading of the petroleum exclusion does not warrant the inclusion of oil which has become contaminated with hazardous substances through use.[165] The case addresses hazardous substances added through use in concentrations below that found in virgin oil.[166]

It is not clear whether a court would find that additives mixed with fuels in storage tanks at the consumer's facility would be considered substances added during use or not. What is clear is that this court would not consider the trivial amount of hazardous substances to exempt the mixture from CERCLA liability, as had been suggested by the EPA memorandum from December 2, 1982.[167] The *Alcan* court specifically held that CERCLA contains no quantitative requirement in its definition of hazardous substance, and that although Alcan's waste contained less of the hazardous elements than can be found in clean dirt, Alcan is still liable for the response costs.[168] Therefore, although additives used in fuels are generally in very small concentrations,[169] *Alcan* holds that the fact that hazardous substances may exist in only trivial amounts will not act as a bar to CERCLA liability.

Zoufal v. *Amoco Oil*[170] involved liability under CERCLA for con-

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[163] *Id.* at 256.

[164] *Id.* at 266.

[165] *Id* at 266-67, stating:

> Thus, the conclusion of the district court in Alcan New York that "a plain reading of the 'exclusionary' provision does not warrant the inclusion of oil which has become contaminated with hazardous substances through use; rather what does come within the ambit of the 'petroleum exclusion' is the oil or oil fraction which naturally contains the hazardous substances(s) unless the fraction itself is specifically listed or designated as a hazardous substance" is in harmony with EPA's interpretation. Moreover, EPA's interpretation of the petroleum exclusion comports with the relevant legislative history which indicates that the exclusion was intended for oil spills, not for releases of oil which has become infused with hazardous substances through use.

[166] *Id.*

[167] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[168] United States v. Alcan Aluminum, 964 F.2d 252, 259 (3d Cir. 1992).

[169] BugOut, dual phase biocide, has a treatment rate of 1 gallon to 10,600 gallons of fuel. *See* INDEX INDUSTRIES, NO. 1/57C-796 BROCHURE.

[170] Zoufal v. Amoco Oil, No. 91-CV-70895, 1993 U.S. Dist. LEXIS 4920 (E.D. Mich. March 18, 1993).

tamination caused by petroleum fuels containing additives blended into the petroleum products after the refining process.[171] Unfortunately, it appears that the plaintiff did not vigorously litigate the issue of the $52,000 of cleanup costs against the defendant oil company. The defendant filed a motion for summary judgment and the plaintiffs responded. But when the court requested supplemental briefs by both parties, the defendant filed a supplemental brief and plaintiff's counsel filed a motion to withdraw from the case. Plaintiff's counsel was permitted to withdraw and plaintiff did not file a supplemental brief. The decision was based on plaintiff's original opposition to the summary judgment, without the benefit of a supplemental brief.[172]

The plaintiff's opposition cited cases involving waste oil.[173] The court then decided that since the plaintiffs did not allege that the storage tanks involved were used to store used or waste substances, the petroleum could not have had a hazardous substance added during or after use.[174] Therefore, the court held the defendant is excluded from CERCLA liability for contamination that occurred when the storage tanks leaked petroleum products.[175] The issue of contaminants added through use and part of waste oil is separate from the issue of additives containing hazardous substances being mixed into petroleum outside the refining process. The court's holding may have been different if a competent supplemental brief had been considered. The case seems to hold that the exception to the petroleum exclusion would only apply to used or waste oils.

On the other hand, the court in *Textron Inc.* v. *Barber-Coleman*[176] holds that it defies common sense to assert that CERCLA's petroleum exclusion is limited to virgin petroleum.[177] Substances do not fall outside the exclusion merely because they are wastes.[178] In *Textron* the contamination was alleged to have been caused by a waste material known as spent Meon.[179] After a process whereby Meon was derived from kerosene, ethylene glycol or diethylene glycol was added to form

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[171] *Id.* at *7. "The first person, characterized by plaintiffs as defendant's 'additive expert,' testified in his deposition that additives are blended into Amoco's petroleum products after and at a separate time from the refining process."

[172] *Id.* at *1.

[173] *Id.* at *10.

[174] *Id.*

[175] *Id.*

[176] Textron Inc. v. Barber-Coleman, 903 F. Supp. 1556 (N.C. 1995).

[177] *Id.*

[178] *Id.*

[179] *Id.* at 1565.

the final product.[180] The complaint alleged that ethylene glycol is a hazardous substance under CERCLA, but left open the possibility that the Meon could have been made using diethylene glycol, which was not alleged to be a CERCLA hazardous substance.[181] The court granted summary judgment on the defendant's motion because the plaintiff could only show contamination from hazardous material indigenous to the kerosene in the Meon.[182] This leaves open the question of whether the petroleum exclusion would apply if the additive in the Meon had been shown to have been a CERCLA hazardous substance.

The court cases do not resolve the question of CERCLA liability for fuel treated with aftermarket additives containing hazardous substances. Courts generally hold that refinery-added substances, even those with hazardous substances, do not trigger CERCLA liability. In *Zoufal* the additives were blended after the refinery process, but they were blended by Amoco, the defendant oil company. Therefore, it would appear that refiner-added substances, including those added after the refining process, do not trigger CERCLA liability. On the other hand, even trivial amounts of hazardous substances added during the use of the petroleum or contaminants added to petroleum waste, do trigger liability. This leaves open the possibility that a court may consider aftermarket additives to be substances added during "use" of the petroleum, thereby triggering CERCLA liability. Also, there is the possibility that a court may consider whether additives are blended by the refiner, on the one hand, or by an end user or fuel distributor, on the other hand, to be insignificant in determining whether there will be liability under CERCLA.

CONCLUSION

The plain language of the petroleum exclusion is ambiguous. It simply does not state when hazardous substances will trigger liability for oil spills. The legislative history is two-sided. Congress wanted to exclude petroleum to placate the oil industry, and at the same time include such things as PCBs in transformer oil together with as many other hazardous substances as possible. The court cases clearly consider refiner added substances part of the "petroleum" that is excluded, but have not addressed substances added by other parties. One

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[180] *Id.*

[181] *Id.* at 1566.

[182] *Id.*

way for a court to address the scope of the petroleum exclusion is by the application of a balancing test.

Courts should consider applying a two-prong balancing test, on a case by case basis, which takes into consideration four factors. The test should balance the following two prongs:

> (1) the need to avoid rendering the petroleum exemption a nullity by giving effect to the plain meaning of what is commonly known as petroleum, including its common additives, and exempting it from CERCLA liability consistent with the congressional intent in enacting the law; and
>
> (2) the government's interest in addressing environmental and health effects of toxic sites by imposing liability for contamination by hazardous substances which can reasonably be considered something other than petroleum.

The factors to consider in balancing the two prongs are:

> (a) Is the hazardous substance added to the fuel one that is found in petroleum or petroleum fractions? Congressional intent,
> includes CERCLA application to PCBs, which do not occur in crude oil or fractions, when added to oil to make transformer fluid. Yet benzene, a petroleum fraction itself, is excluded when blended into gasoline at the refinery.
>
> (b) How attenuated from the manufacturing process is the additive blended with the fuel? Are the additives applied in such proximity to the refinery process so as to be considered a part of it?
>
> (c) Is the additive used solely to affect the characteristics of the fuel as an energy source? The EPA memorandum of December 2, 1982,[183] reserved judgment on this question.
>
> (d) Is the hazardous material in such trivial amounts that any threat to health and environment comes only from the petroleum?

A good way to illustrate this judicial test is by using a hypothetical factual setting. Suppose Grower operated several diesel-powered farm tractors and self-propelled harvesting machines requiring about 10,000 gallons of diesel fuel per year. Grower bought diesel fuel from a local petroleum distributor who delivered the fuel to a 1,000 gallon, above-ground storage tank owned and operated by Grower on her property. The farm tractors and implements are re-fueled from the tanks using gravity and a delivery hose with a nozzle. The dirt area around the tanks showed staining from spillage during fuel deliveries, spillage during fueling of the equipment, and leakage from the equipment parked in the area, similar to that described in *Caterair*.[184] During the

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[183] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[184] Caterair Int'l Corp. v. LCL Transist Co., No. 94-C1049, 1995 U.S. Dist. LEXIS 7854, at *11-*12 (N.D.Ill. May 31, 1995).

last ten years Grower has treated the fuel in the tanks twice each year with a fuel microbiocide recommended by her fuel supplier to prevent the growth of bacteria and fungi which could cause filter plugging and maintenance problems.[185]

Grower sells the property to Buyer, who undertakes the construction of a new shop in the area of the fuel storage tanks. During the excavation for the concrete foundation, contamination is discovered and the local department of building safety issues a corrective notice ordering Buyer to stop construction pending analysis of the soil and clearance from the local department of health services.[186] An engineering consulting firm begins soil analysis and finds BTEX compounds, CERCLA hazardous substances which are inherent in the diesel fuel and excluded from CERCLA liability.[187] The soil analysis reveals the presence of Ethylenediamine, Ethylenethiourea, and Dimethylamine, which are all designated hazardous substances under CERCLA[188] and ingredients of the fuel microbiocide used by Grower.[189] Ethylene Thiourea, a teratogen and oncogen in laboratory animals,[190] has migrated into the shallow ground water and was detected in a nearby residential water well.

The cleanup required removal and treatment of the soil at a cost of $100,000. Then, Buyer asks Grower to reimburse the costs. Grower refuses. Buyer files suit under Section 107 of CERCLA, seeking private party reimbursement for response costs consistent with the national contingency plan. Grower claims that the petroleum exclusion in CERCLA prohibits recovery. How would the court decide the case?

The following table will help to illustrate the application of the proposed test.

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[185] INDEX INDUSTRIES INC., NO. 1/57C-796, ADVERTISEMENT FOR BUGOUT, DUAL PHASE BIOCIDE, PRODUCT SERIES 57.

[186] *See* KFC Western, Inc. v. Meghrig, 49 F.3d 518, 519 (9th Cir. 1995).

[187] Caterair Int'l Corp. v. LCL Transist Co., No. 94-C1049, 1995 U.S. Dist. LEXIS 7854, at *11-13 (N.D.Ill. May 31, 1995)

[188] 40 C.F.R. § 302.4 (1996).

[189] VALVTECT PETROLEUM PRODUCTS, MATERIAL SAFETY DATA SHEET FOR BIOGUARD (1993): "Section 2-Hazardous Ingredients, Ethylene Thiourea <1.0 % by wt., Ethylenediamene <0.75 % by wt., Dimethylamine <0.75 % by wt."

[190] VALVTECT PETROLEUM PRODUCTS, MATERIAL SAFETY DATA SHEET FOR BIOGUARD (1993): "Product contains Ethylene Thiourea which has been determined to be a teratogen and oncogen in laboratory animals."

Scope of CERCLA Liability

	(1) Exclude what is within the plain meaning of what is commonly known as petroleum	(2) Include hazardous substances which can reasonably be construed as non-petroleum
(a) Normally found in petroleum.	"BTEX" compounds. Petroleum fractions.	PCB's
(b) Degree of attenuation from manufacture.	At refinery or by refinery. Lead additives to gasoline.	Blended by end-user. Contaminated during use.
(c) Affects characteristics as energy source.	Octane boosters.	Biocides.
(d) Trivial amounts.	Threat posed comes only from the petroleum.	Threat from hazardous substance.

The two columns represent the two prongs of the balancing test and the four rows represent the four factors to consider in weighing the two prongs. Column (1) represents a finding by the court that the material would be excluded from CERCLA liability because such a finding is consistent with the Congressional intent that "petroleum" spills are not covered by CERCLA and the substances involved fall within the definition of "petroleum." Column (2) represents a finding by the court that the material is included within the scope of CERCLA because the government interest in addressing health and environmental threats and it is reasonable to consider the material "non-petroleum" for the purposes of CERCLA liability.

Row (a) illustrates that hazardous substances which are inherent in crude oil and petroleum, such as benzene, toluene, ethyl-benzene, and xylene, weigh in favor of finding the material within the definition of "petroleum," even though they are CERCLA listed petroleum fractions, because to find otherwise would be to make the petroleum exclusion a nullity. On the other hand, substances such as PCBs which are not petroleum fractions but are CERCLA-listed hazardous substances, weigh in favor of finding the material within the scope of CERCLA liability.

Row (b) illustrates that even hazardous substances which are not strictly an inherent part of crude oil or petroleum, and in spite of being found within the scope of CERCLA when combined with non-petroleum bases, are considered part of "petroleum" when added at the refinery as a part of the manufacturing process, thus weighing in favor of exclusion from CERCLA liability. However, the more attenuated from the manufacture of petroleum products the blending or contamination with hazardous substances occurs, the more it weighs in favor of finding CERCLA liability.

Row (c) illustrates the reservation of judgment by the EPA contained in the memorandum of the General Counsel of December 1, 1982.[191] Additives which affect the fuel's characteristics as an energy source are more closely aligned with the intuitive concept of "petroleum" than are additives that modify other characteristics, such as PCBs,[192] The latter make petroleum suitable for more exotic uses, such as transformer oil, not closely aligned with the common notion of "petroleum."

Row (d) illustrates the "trivial amounts exception" contained in the memorandum of the EPA General Counsel of December 2, 1992,[193] which provides that if the threat from the spill is posed solely from the petroleum, and there is no threat from the trivial amount of hazardous substance blended with it, then the petroleum exclusion will apply. However, the finding in *Alcan*[194] that it is reasonable for Congress to limit additions to nature, for the sake of life on this planet, clarifies that contamination even to a level below that found in clean dirt can still be subject to CERCLA liability.

Applying this test to the hypothetical factual setting above illustrates its usefulness. First, the hazardous materials appear to be from the ethylene family. The closest chemical companies come to being petroleum refiners is in ethylene plants.[195] Therefore, the materials may come from petroleum feed stocks and in some very small degree, actually exist in crude oil and petroleum fractions. On the other hand, they are very much like PCB's because they are manufactured in chemical plants. Second, they are being blended by the end-user and quite attenuated from the manufacture of the diesel fuel at the refinery. Third,

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[191] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[192] Roy Broadbank, *The PCB Peril in Perspective; Disposal of polychlorinated biphenyls*, PROCESS ENGINEERING, 41 (July 1991).

> PCBs have low vapor pressures, low solubility and high dielectric constants and mix with most organic solvents. They also offer excellent thermal stability, are strongly resistant to both acid and basic hydrolysis and are generally inert and resistant to oxidation. Those with a higher chlorine content are non-flammable and have extremely low volatility. This range of properties made PCBs particularly attractive to the burgeoning electrical and electronic industries in the '50s and '60s. They were used almost universally as dielectric liquids in capacitors . . . .

[193] Memorandum from Robert M. Perry, Assoc. Administrator & Gen. Counsel, E.P.A., to Dick Wittington, Regional Administrator, Region VI, *supra* note 59.

[194] United States v. Alcan Aluminum, 964 F.2d 252, 260 (3d Cir. 1992).

[195] WILLIAM L. LEFFLER, PETROLEUM REFINING FOR THE NON-TECHNICAL PERSON 130 (1979).

while biocides do not affect the diesel as an energy source directly, they prevent the growth of bacteria and fungi which are contaminants and thereby extend the storage life of the fuel. Finally, at a treatment rate of 1 quart to 1,325 gallons, of which less than 1% is hazardous material, a maximum of 24 ounces of hazardous material could have been spilled over the ten year period. Should an expert testify that the threat to health and the environment are posed solely from the diesel fuel, it would weigh in favor of exclusion from CERCLA liability. However, a court following the holding in *Alcan*[196] would still find that there is no quantitative requirement in CERCLA, and a trivial amount will not preclude a finding of liability. On balance, the court could very well find CERCLA liability for the cleanup costs.

On the other hand, if the biocide was blended with the diesel fuel at the refinery or by the distributor, a point less attenuated from the manufacturing process, it is more likely that the court would find that the petroleum exemption applies. Particularly if the additives come from petroleum feed stocks, were manufactured by the refiner, and contained ingredients that affected the fuel as an energy source as well as the biocide ingredient.

An amendment to the statute is another way of addressing the problem. The definition of hazardous substance in the Act excludes "petroleum," but there is no definition of "petroleum" in the Act.[197] The obvious way to correct any ambiguity would be to add a definition of "petroleum" to the statute. On the other hand, the plain language of the statute does not exclude any fraction which is specifically listed or designated as a hazardous substance.[198] The EPA General Counsel stated that the Agency could simply designate gasoline as a hazardous substance which would then make it appropriate to use the Hazardous Substance Response Fund to respond to gasoline spills.[199]

In conclusion, a grower's use of aftermarket fuel additives could very well trigger an unexpected liability for cleanup costs incurred by third parties under CERCLA.

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[196] United States v. Alcan Aluminum, 964 F.2d 252, 260 (3d Cir. 1992).

[197] 42 U.S.C. § 9601(14) (1994).

[198] *Id.*

[199] Memorandum from A. James Barnes, Acting Counsel, E.P.A. to Sheldon M. Novick, Regional Counsel, Region III, *supra* note 85, stating: "If the Agency concludes that it would be appropriate to use the CERCLA Hazardous Substances Response Fund to respond to gasoline spills, it may consider designating gasoline as a hazardous substance pursuant to Section 102 of the Act."