

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

In the Matter of)

UNION OIL COMPANY OF)
CALIFORNIA,)
a corporation.)

DOCKET NO. 9305

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act, and by virtue of the authority vested in it by said Act, the Federal Trade Commission ("Commission"), having reason to believe that Union Oil Company of California (hereinafter, "Unocal" or "Respondent") has violated Section 5 of the Federal Trade Commission ("FTC") Act, as amended, 15 U.S.C. § 45, and it appearing to the Commission that a proceeding in respect thereof would be in the public interest, hereby issues its complaint, stating its charges as follows:

Nature of the Case

1. This case involves Unocal's subversion of state regulatory standard-setting proceedings relating to low emissions gasoline standards. To address California's serious air pollution problems, the California Air Resources Board ("CARB") initiated rulemaking proceedings in the late 1980s to determine "cost-effective" regulations and standards governing the composition of low emissions, reformulated gasoline ("RFG"). Unocal actively participated in the CARB RFG rulemaking proceedings and engaged in a pattern of bad-faith, deceptive conduct, exclusionary in nature, that enabled it to undermine competition and harm consumers. Through a pattern of anticompetitive acts and practices that continues even today, Unocal has illegally monopolized, attempted to monopolize, and otherwise engaged in unfair methods of competition in both the technology market for the production and supply of CARB-compliant "summer-time" RFG and the downstream CARB "summer-time" RFG product market.
2. During the RFG rulemaking proceedings in 1990-1994, Unocal made materially false and misleading statements including, but not limited to, the following:

- a. Representing to CARB and other participants that its emissions research results showing, *inter alia*, the directional relationships between certain gasoline properties (most notably the midpoint distillation temperature of gasoline or "T50") on automobile emissions were "nonproprietary," were in "the public domain," or otherwise were available to CARB, industry members, and the general public, without disclosing that Unocal intended to assert its proprietary interests (as manifested in pending patent claims) in these research results;
 - b. Representing to CARB that a "predictive model" -- *i.e.*, a mathematical model that predicts whether the resulting emissions from varying certain gasoline properties (including T50) in a fuel are equivalent to the emissions resulting from a specified and fixed fuel formulation -- would be "cost-effective" and "flexible," without disclosing that Unocal's assertion of its proprietary interests would undermine the cost-effectiveness and flexibility of such a model;
 - c. Making statements and comments to CARB and other industry participants relating to the cost-effectiveness and flexibility of the regulations that further reinforced the materially false and misleading impression that Unocal had relinquished or would not enforce any proprietary interests in its emissions research results.
3. Through its knowing and willful misrepresentations and other bad faith, deceptive conduct, Unocal created and maintained the materially false and misleading impression that it did not possess, or would not enforce, any relevant intellectual property rights that could undermine the cost-effectiveness and flexibility of the CARB RFG regulations.
 4. Although Unocal knew by July 1992 that most of the pending patent claims based on its emissions research had been allowed by the United States Patent and Trademark Office, Unocal concealed this material information from CARB and other participants in the CARB RFG proceedings. Until Unocal's public announcement of its RFG patent rights on January 31, 1995, Unocal continued to perpetuate the false and misleading impression that it did not possess, or would not enforce, any proprietary interests relating to RFG.
 5. But for Unocal's fraud, CARB would not have adopted RFG regulations that substantially overlapped with Unocal's concealed patent claims; the terms on which Unocal was later able to enforce its proprietary interests would have been substantially different; or both. Unocal's misrepresentations, on which CARB and other participants in the rulemaking process reasonably and detrimentally relied, have harmed competition and led directly to the acquisition of monopoly power for the technology to produce and supply California "summer-time" reformulated gasoline (mandated for up to eight months of the year, from approximately March through October). Unocal's "patent ambush" also has permitted it to undermine competition and harm consumers in the downstream product market for "summer-time" reformulated

gasoline in California.

6. Unocal did not announce the existence of its proprietary interests and patent rights relating to RFG until shortly before CARB's Phase 2 regulations were to go into effect. By that time, the refining industry had spent billions of dollars in capital expenditures to modify their refineries to comply with the CARB Phase 2 RFG regulations. After CARB and the refiners had become locked into the Phase 2 regulations, however, Unocal commenced its patent enforcement efforts by publicly announcing its RFG patent rights and its intention to collect royalty payments and fees. Since Unocal's public announcement of the issuance of its first RFG patent on January 31, 1995, Unocal has obtained four additional patents and vigorously enforced its RFG patent rights through litigation and licensing activities.
7. The anticompetitive conduct by Unocal that is at issue in this action has materially caused or threatened to cause substantial harm to competition, and will in the future materially cause or threaten to cause further substantial injury to competition and to consumers.
8. The threatened or actual anticompetitive effects of Unocal's conduct include but are not limited to the following:
 - a. increased royalties (or other payments) associated with the use of technology to refine, produce, and supply low emissions, reformulated gasoline for the California market;
 - b. increases in the price of low emissions, reformulated gasoline in California;
 - c. reductions in the manufacture, output, and supply of low emissions, reformulated gasoline for the California market; and
 - d. decreased incentives, on the part of refiners, blenders, and importers, to produce and supply low emissions, reformulated gasoline to the California market.
9. Unocal's enforcement of its patent rights has resulted, *inter alia*, in a jury determination of a 5.75 cents per gallon royalty on gasoline produced by ARCO, Shell, Exxon, Mobil, Chevron, and Texaco that infringed the first of Unocal's five RFG patents – United States Patent No. 5,288,393 (the "393 patent"). These major refiners are still embroiled with Unocal in a pending accounting action to determine the total amount of infringement damages owed to Unocal for the period August 1996 through December 2000. Unocal also has sued Valero Energy Company ("Valero") seeking the imposition of a 5.75 cents per gallon royalty (and treble damages) on gasoline produced by Valero that infringes the '393 patent and the fourth of Unocal's five RFG patents – United States Patent No. 5,837,126 (the "126 patent"). Taken together, the major refiners and Valero comprise approximately 90 percent of the current refining capacity of CARB-compliant RFG in the California market. Unocal has publicly

announced that its “uniform” RFG licenses, with fees ranging from 1.2 to 3.4 cents per gallon, are available to “non-litigating” refiners.

10. Were Unocal to receive a 5.75 cents per gallon royalty on all gallons of “summer-time” CARB RFG produced annually for the California market, this would result in an estimated annual cost of more than \$500 million (assuming approximately 14.8 billion gallons per year California consumption, with up to 8 months of CARB summer-time gasoline requirements). Unocal’s own economic expert has testified under oath that 90 percent of any royalty would be passed through to consumers in the form of higher retail gasoline prices.

Respondent

11. Union Oil Company of California is a public corporation organized, existing, and doing business under, and by virtue of, the laws of California. Its office and principal place of business is located at 2141 Rosecrans Avenue, Suite 4000, El Segundo, California 90245. Since 1985, Union Oil Company of California has done business under the name “Unocal.” Unocal is a wholly-owned, operating subsidiary of Unocal Corporation, a holding company incorporated in Delaware.
12. Unocal is, and at all relevant times has been, a corporation as “corporation” is defined by Section 4 of the Federal Trade Commission Act, 15 U.S.C. § 44; and at all times relevant herein, Unocal has been, and is now, engaged in commerce as “commerce” is defined in the same provision.
13. Prior to 1997, Unocal owned and operated refineries in California as a vertically integrated producer, refiner, and marketer of petroleum products. In March 1997, Unocal completed the sale of its west coast refining, marketing, and transportation assets to Tosco Corporation. Currently, Unocal’s primary business activities involve oil and gas exploration and production, as well as production of geothermal energy, ownership in proprietary and common carrier pipelines, natural gas storage facilities, and the marketing and trading of hydrocarbon commodities.
14. In its annual report for the year 2001 filed with the United States Securities and Exchange Commission, Form 10-K, Unocal lists as another of its key business activities: “[p]ursuing and negotiating licensing agreements for reformulated gasoline patents with refiners, blenders and importers.” Unocal has publicly announced that it expects to reap up to \$150 million in revenues a year from licensing its RFG patents.
15. Unocal is the owner, by assignment, of the following patents relating to low emissions, reformulated gasoline: United States Patent No. 5,288,393 (issued February 22, 1994); United States Patent No. 5,593,567 (issued January 14, 1997); United States Patent No.

5,653,866 (issued August 5, 1997); United States Patent No. 5,837,126 (issued November 17, 1998); United States Patent No. 6,030,521 (issued February 29, 2000). These patents all arise from the same scientific discovery and are related in that they all claim priority based on patent application No. 07/628,488, filed on December 13, 1990. These patents share the identical specification.

California Air Resources Board (CARB)

16. The California Air Resources Board is a department of the California Environmental Protection Agency. Established in 1967, CARB's mission is to protect the health, welfare, and ecological resources of California through the effective and efficient reduction of air pollutants, while recognizing and considering the effects of its actions on the California economy. CARB fulfills this mandate by, among other things, setting and enforcing standards for low emissions, reformulated gasoline.
17. California's Administrative Procedures Act governs CARB's rulemaking proceedings and requires, *inter alia*, notice of any proposed regulations, the development of an evidentiary basis for any proposed regulations, the solicitation of public comments, and the conduct of hearings. Given the scientific and technical nature of the issues involved, CARB relies on the accuracy of the data and information presented to it in the course of rulemaking proceedings.
18. All CARB regulations are subject to review by California's Office of Administrative Law to ensure that such regulations meet statutory standards of necessity, authority, clarity, consistency, reference and nonduplication. CARB's regulations are subject to judicial review to determine whether the agency acted within its delegated authority, whether the agency employed fair procedures, and whether the agency's action was arbitrary, capricious, or lacking in evidentiary support.

Reformulated Gasoline in California

19. CARB's RFG regulations had their genesis in an effort by California to study the viability of alternative fuels for motor vehicles, such as methanol. In 1987, the California legislature passed AB 234, which resulted in the formation of a panel to study the environmental impact of alternative fuels and to develop a proposal to reduce emissions. This panel included representatives from the refining industry, including Roger Beach, a high level Unocal executive who later became the Chief Executive Officer and Chairman of the Board of Unocal.
20. Based in substantial part on the representations of oil industry executives that the oil industry could, and would, develop gasoline that would be cleaner-burning and cheaper than methanol, the AB 234 study panel eventually recommended exploring reformulated gasoline as an

alternative to methanol.

21. In late 1988, the California legislature amended the California Clean Air Act to require CARB to take actions to reduce harmful car emissions, and directed CARB to achieve this goal through the adoption of new standards for automobile fuels and low-emission vehicles. CARB's authority in conducting its Phase 2 RFG rulemaking proceedings was circumscribed by an express and limited delegation of authority by the legislature. CARB's specific legislative mandate, set forth in California Health and Safety Code Section 43018, provided, *inter alia*, that CARB undertake the following actions:
 - a. Take "necessary, cost-effective, and technologically feasible" actions to achieve "reduction in the actual emissions of reactive, organic gases of at least 55 percent, a reduction in emissions of oxides of nitrogen of at least 15 percent from motor vehicles" no later than December 31, 2000;
 - b. Take actions "to achieve the maximum feasible reduction in particulates, carbon monoxide, and toxic air contaminants from vehicular sources";
 - c. Adopt standards and regulations that would result in "the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuels" including the "specification of vehicular fuel composition."
22. Following the 1988 California Clean Air Act amendments, CARB embarked on two rulemaking proceedings relating to low emissions, reformulated gasoline. In these rulemaking proceedings – Phase 1 and Phase 2, respectively – CARB prescribed limits on specific gasoline properties.
23. The Phase 1 RFG proceedings resulted in the adoption of regulations in 1990 mandating a reduction in Reid Vapor Pressure ("RVP"), the elimination of leaded gasoline, and a requirement that deposit control additives be included in gasoline. The Phase 1 regulations did not require refiners to make large capital investments.
24. CARB's Phase 2 RFG proceedings represented an effort by CARB to develop stringent standards for low emissions, reformulated gasoline. Participants to the Phase 2 RFG proceedings understood that the CARB Phase 2 RFG regulations would require refiners to make substantial capital investments to reconfigure their refineries to produce compliant gasoline.
25. In its Phase 2 RFG proceedings, CARB did not conduct any independent studies of its own, but relied on industry to provide the needed research and resulting knowledge.

26. CARB's Phase 2 RFG proceedings were quasi-adjudicative in nature. In the course of these proceedings, CARB adhered to the procedures set forth in the California Administrative Procedures Act. CARB provided notice of proposed regulations; provided the language of these proposed regulations and a statement of reasons; solicited and accepted written comments from the public; and conducted lengthy hearings at which oral testimony was received. CARB also issued written findings on the results of its rulemaking proceedings. Following adoption of the regulations, several parties sought judicial review of the CARB Phase 2 RFG regulations that provided small refiners with a two-year exemption for compliance with the regulations.
27. Unocal management and employees understood that information and data relating to the potential costs of complying with, or relating to the cost-effectiveness of, the Phase 2 regulations were material to CARB's RFG rulemaking proceedings.

Unocal's RFG Research

28. By 1989, Unocal management knew that CARB intended to achieve significant emissions reductions by regulating the chemical and physical properties of gasoline sold in California. Unocal scientists from the company's Science and Technology Division began to design experiments to determine how controlling various properties of gasoline affected automobile emissions. In January 1990, Unocal scientists conducted in-house emissions testing of various gasoline fuels in a single car to determine which gasoline properties had the greatest emissions impact.
29. On May 14, 1990, Unocal scientists Michael Croudace and Peter Jessup presented the preliminary results of the emissions research program to the highest levels of Unocal's management to obtain approval and funding for additional, confirmatory research. These research results were presented to the members of Unocal's Executive Committee, including Richard Stegemeier, the Chief Executive Officer and Chairman of the Board of Unocal. Unocal management approved funding for additional emissions testing, and this project became known as the "5/14 Project."
30. Unocal management approved the filing of a patent application covering the invention and discovery that sprang from the "5/14 Project," specifically the Unocal scientists' purportedly novel discovery of the directional relationships between eight fuel properties – RVP, T10 (the temperature at which 10 percent of a fuel evaporates), T50 (the temperature at which 50 percent of a fuel evaporates), T90 (the temperature at which 90 percent of a fuel evaporates), olefin content, aromatic content, paraffin content, and octane – and three types of tailpipe emissions – *i.e.*, incompletely burned or unburned hydrocarbons ("HC"), carbon monoxide ("CO"), and nitrogen oxides ("NOx").

