

December 16, 2014

Chairman Jerome Horton  
Fourth District  
State Board of Equalization  
450 N Street, MIC:72  
Sacramento, CA 95814

**Re: Property Tax Rule 474**

Dear Chairman Horton:

I write in support of Property Tax Rule 474. My background includes more than 30 years of experience as a chemical engineer, as a commercial manager, and as a consultant in the petroleum refining industry. As reflected in my resume and accompanying experience list, which are attached to this letter, I spent over a decade working in refineries and learning various aspects of the refining business during my career in industry. Since that time, I have worked as a consulting expert in the petroleum refining, gas processing, and petrochemical industries. In this role, I have been involved in a variety of assignments involving the acquisition, privatization, and financing of petroleum refineries in the United States and abroad, and have served as an expert witness in numerous litigation matters involving the refining and chemical process industries.

I am familiar with California property taxation and Rule 474 through my work for Contra Costa County. As a consultant for Contra Costa County, I have assisted the County in appraising the four refineries located there. I have also provided expert testimony to assist the County to defend against assessment appeals challenging the assessed value of taxable refinery property, among other services. I also have advised the County concerning the facts supporting the valuation of petroleum refineries, as provided by Rule 474.

The first fact that supports adoption of Rule 474 is that refineries are bought and sold as a single unit. During my career, I have reviewed the details of more than one hundred refinery sales and I only recall a handful of instances when a refinery's equipment has been sold separately from its land and improvements. Most, if not all of these sales, I would categorize as exigency sales that were not open market transactions or involved refineries that were no

longer in operation. Due to this reality, there is little data to establish separate fair market values for refinery land, improvements and equipment.

The second significant fact supporting the necessity for Rule 474 is that buyers, sellers, and refinery operators are primarily interested in the income that is generated by the refinery. The income potential of a petroleum refinery is dictated by the installed processing equipment, which generally exceeds 80% of the total value of taxable property. However, because the fixtures at a refinery cannot contribute to income without the land on which they rest and, conversely, land at a refinery cannot produce income without the attached fixtures, income resulting from the refinery cannot be rationally allocated between these elements. In other words, the land, improvements and fixtures at refineries are physically and functionally integrated. For this reason, refinery operations planning, economic analysis, and management accounting do not allocate income to classes of assets, such as land, improvements, and equipment. Rather, income is measured and attributed to a refinery as a single economic unit.

As the income stream must be attributed to the refinery as a single unit, Rule 474 is necessary to value refineries under the income approach. In my experience, the income approach is used by buyers and sellers of refineries to establish the selling price in transactions. For purposes of determining assessed values, the income approach is often the preferred method for valuing refineries because sales comparisons are not always available and because many refineries in the United States have suffered significant depreciation or obsolescence that makes the cost approach unreliable. Not only is it appropriate to value refineries as a single appraisal unit under the income approach, but the justification for requiring a separate appraisal unit for fixtures in order to account for fixture depreciation does not exist under the income approach. This is because the refinery income stream and the resulting value account for a lower level of performance that would result from physical depreciation of a refinery's fixtures by wear and tear or obsolescence. In addition, the income approach accounts for costs of maintenance and replacement that refineries incur to mitigate the effects of physical depreciation and obsolescence.

In conclusion, Rule 474 reflects the realities of the marketplace. Moreover, the rebuttable presumption provided by Rule 474 does not foreclose a refinery owner from presenting evidence that a refinery's fixtures are not part of the same economic unit as the refinery's land and improvements, while recognizing that such exceptions are few and far between. In recognizing how refineries are bought and sold, Rule 474 can help ensure that the market value of refineries is evaluated in accordance with the practice in the marketplace for purposes of decline-in-value valuations.

Chairman Jerome Horton  
December 16, 2014  
Page 3

Yours truly,

A handwritten signature in black ink, appearing to read 'DLFlessner', with a long horizontal flourish extending to the right.

Donald L. Flessner  
Executive Vice-President  
Baker & O'Brien, Inc.

## RESUME

### DONALD L. FLESSNER

**EDUCATION:** B.S. Magna cum Laude Chemistry and Biology - 1977  
Mount Union College, Alliance, Ohio

Post-graduate work in Chemical Engineering - 1979 to 1981  
M.B.A. Finance - 1989  
Cleveland State University

#### EXPERIENCE:

Baker & O'Brien, Inc. Executive Vice President	Current
Purvin & Gertz, Inc. Associate Consultant	1992 - 1994
BP Oil Co./Standard Oil Co. (Ohio) Technical Specialist, Refining Department Senior Distribution Coordinator, Products Supply and Trading Department Senior Process Engineer, Refining Department	1979 - 1992
Scott & Fetzer Corporation Plant Chemist, Chagrin Falls, Ohio	1977 - 1979

#### SUMMARY OF EXPERIENCE:

Following graduation in 1977, Don joined Scott & Fetzer Corporation as the Plant Chemist at its Chagrin Falls, Ohio, specialty chemicals plant. In this position, he implemented purchasing and cost controls, managed quality control and environmental programs, and supervised production schedules and work crews.

In 1979, Don joined Standard Oil Co. of Ohio (SOHIO), later BP Oil Co. (BP Oil), in SOHIO's Cleveland corporate engineering department as a specialist in chemical treating and corrosion. After completing assignments in three SOHIO refineries, Don was assigned to the Toledo refinery in 1981 and promoted to Senior Process Engineer. While at the Toledo refinery, he organized and supervised teams that identified, evaluated, and implemented a number of projects that improved refinery profitability, which amounted to \$10 million of capital investment. In 1986, Don was promoted to Senior Distribution Coordinator in the Products Supply and Trading Department at BP Oil's Cleveland headquarters. In this position, he evaluated market economics and managed distribution of petroleum products in Midwest, East Coast, and Gulf Coast

markets served by BP's wholesale marketing system. In 1991, Don was promoted to Technical Specialist in BP Oil's Refining Department where he prepared capital investment strategies for its U.S. refining system. He developed several of these proposals as detailed investment initiatives for approval by BP Oil's board of directors.

In 1992, Don left BP Oil to become an independent consultant with Purvin & Gertz, Inc., in its Dallas office. While at Purvin & Gertz, he completed various assignments in the petroleum refining, gas processing, and petrochemical industries. He was a regular contributor to the monthly *Global LPG Market Outlook* and evaluated markets for gas liquids as petrochemical feedstocks and alternative fuels.

Since joining Baker & O'Brien, Inc. in 1994, Don has completed a wide range of assignments in the refining, chemical, and fertilizer industries. These projects have included due diligence on behalf of investors and financial institutions for companies and construction projects around the world. He has prepared valuations of refining, transportation, and chemical manufacturing assets for companies, financial institutions, and government agencies. He has served as a consulting expert and a testifying expert in litigation involving major construction projects, processing agreements, product quality and testing, business interruption, and property damage on behalf of operating companies, contractors, and insurers involved in the refining and chemical process industries. Don has testified as an expert witness in depositions, public hearings, jury trials, and international arbitration.

#### **REPRESENTATIVE MAJOR AREAS OF EXPERIENCE:**

1. **Refinery Valuation** – Prepared annual property values for several major California refineries. Work included review of refinery records, inspection of the plants, analysis of refinery yields and operating costs, review of refinery capital investments, market reviews and assessments, and preparation of financial models to support the valuations. Assisted in negotiation of settlements. Presented and defended valuation issues in public hearings before Assessment Appeals Boards.
2. **Ammonia Plant Project Finance** – Performed due diligence and project monitoring for construction of world-scale ammonia plants on behalf of financial institutions. These projects included engineering and construction of new plants in the Caribbean and the Middle East and the relocation of a plant from the U.S. to the Caribbean. Work included technology assessment, review of EPC contracts, analysis of feedstock supply and product offtake, evaluation of capital investment, review of comparative manufacturing economics, and evaluation of infrastructure facilities and agreements. Served as the independent engineer to monitor construction progress and mechanical completion, and to witness, evaluate, and certify performance tests and project completion.

3. **Refinery Project Finance** – Performed due diligence for construction of a world-scale refinery located in the Middle East on behalf of financial institutions. Work included technology assessment, analysis of feedstock supply and products offtake, review of comparative manufacturing economics, development of a market study, review of capital expenditures, and evaluation of infrastructure facilities and agreements.
4. **Russian Oil Company Privatization** – Performed due diligence for the purchase of an integrated oil company on behalf of an investor. Work included inspection of company assets located at several sites in Western Siberia, technology assessment, analysis of feedstock supply and market opportunities for products, evaluation of capital expenditures, and an evaluation of manufacturing economics.
5. **Russian Fertilizers Privatization** – Prepared due diligence for the purchase of fertilizer plants on behalf of an investor. These plants manufactured nitrogen fertilizers, phosphate fertilizers, methanol, and related industrial chemicals. Work included inspection of company assets located at several sites near Moscow, technology assessment, analysis of feedstock supply and market opportunities for products, evaluation of capital investment programs, and analysis of manufacturing economics.
6. **Gas Plant and Pipelines Valuation** – Prepared a valuation of an onshore gas processing plant and offshore pipelines for the gathering and processing of deepwater Gulf of Mexico oil and gas production. The valuation was prepared for a financial institution in support of structured finance. Served as independent engineer to certify completion of the project for financial purposes.
7. **Refinery Manufacturing Options Study** – Prepared a capital investment strategy to manufacture transportation fuels at a Middle Eastern refinery. Evaluated yields and operating economics for manufacturing options related to production of gasoline and diesel fuel, upgrade of residual fuels, management of light ends, and optimization of conversion capacity. Presented conclusions for consideration to the company board of directors.
8. **Caribbean Refinery Privatization** – Prepared a business plan and presentation brochure for privatization of a world-class refinery on behalf of an investor. Work included inspection of refinery assets located in the Caribbean, technology assessment, analysis of feedstock supply and products offtake, review of capital expenditures, and identification of joint venture partners. Presented the project to major European investment banks.

9. **Refinery Manufacturing Options Study** – Prepared a capital investment strategy for manufacturing and marketing operations at a major U.S. West Coast refinery. Evaluated yields and operating economics for production of reformulated fuels, upgrade of residual fuels, management of light ends, optimization of conversion capacity, and competitive analysis. Presented conclusions to the company board of directors.
10. **Refinery Processing Agreement Litigation** – Assisted a major international petroleum trader in asserting claims of fraud and theft against parties involved in a toll processing agreement. Work included assistance in discovery, review of refinery trading records, evaluation of refinery operations, interpretation of the processing agreement, and preparation of exhibits used at trial.
11. **Ammonia Manufacturing Litigation** – Assisted a major equipment supplier in defending allegations that its equipment was the cause of a business interruption claim. Work included assistance in discovery, evaluation of operating records, determination of business interruption damages, and expert testimony.
12. **Fluid Catalytic Cracker Unit (FCCU) Construction Litigation** – Assisted a major engineering and construction firm in defending allegations that construction errors in the installation of an FCCU catalyst cooler resulted in a business interruption claim. Work included assistance in discovery, evaluation of FCCU operating data, evaluation of refinery operations, determination of business interruption damages, and expert testimony.
13. **Refinery Business Interruption Litigation** – Assisted a control systems firm in defending allegations that its compressor surge controllers caused a business interruption claim. Work included assistance in discovery, evaluation of refinery operating data, review of procedures and control systems, determination of business interruption damages, and expert testimony.
14. **Refinery Crude Supply Contract Litigation** – Assisted a state-owned oil company in defending allegations that its declaration of force majeure was improperly issued. Work included assistance in discovery, evaluation of crude oil import data, review of contracts, determination of economic damages, and expert testimony.
15. **Nitroparaffins Litigation** – Assisted a major engineering and construction firm in defending allegations that its process design contributed to an explosion at a nitroparaffins manufacturing plant. Work included assistance in discovery, evaluation of design issues, and expert testimony.

16. **Acrylonitrile Plant Construction Litigation** – Assisted a major engineering and construction firm in asserting claims that the owner's interference in a lump-sum engineering, procurement, and construction contract resulted in a large cost overrun. Work included assistance with discovery, evaluation of construction documents, analysis of project disruption, evaluation of change orders, and preparation of trial exhibits.
17. **Ethylene Plant Construction Litigation** – Assisted a major engineering and construction firm in defending allegations that poor engineering work resulted in a large cost overrun. Work included assistance with discovery, inspection of the plant, evaluation of construction documents, analysis of critical path, and determination of economic damages due to delays in the project schedule.
18. **Formaldehyde Plant Construction Litigation** – Assisted an engineering and construction firm in defending allegations that delays in completing construction of a formaldehyde plant and poor plant performance resulted in a damage claim. Work included assistance in discovery, inspection of the plant in Belgium, evaluation of operating records, review of construction contracts, valuation of the plant, and determination of economic damages. Presented and defended conclusions in an International Chamber of Commerce Arbitration.
19. **Polycarbonate Manufacturing Litigation** – Assisted an engineering and construction contractor involved in a power outage at a polycarbonate plant that resulted in a business interruption claim. Work included assistance in discovery, inspection of the plant, review of maintenance records, and determination of property and business interruption damages. Presented and defended conclusions at trial.
20. **Polybutylene Litigation** – Assisted municipal water districts in asserting claims for damages resulting from defective polybutylene pipe. Work included assistance in discovery, evaluation of research and development records, review of "state of the art" issues, and expert testimony.
21. **Polyurethane Foam Litigation** – Assisted manufacturers of polyurethane foam systems in defending claims that the products were defective or unfit for their intended use. Issues included whether manufacturers of architectural cladding panels properly used these products and implemented adequate quality control procedures. Work included assistance in discovery, observation and review of work methods, evaluation of manufacturing records, review of warranty claims, and preparation of trial exhibits.

22. **Product Contamination Litigation** – Assisted supplier and transporters in defending claims that cargoes of refined products were contaminated or unfit for their intended use. Issues included applicable test procedures, pathways for contamination, compatibility of blending components, marine operations, and commercial specifications. Work included assistance in discovery, evaluation of manufacturing records, review of shipping documents, and expert testimony.
23. **Ammonia Plant Insurance Dispute** – Assisted a major ammonia manufacturer in resolving insurance claims with adjusters. Evaluated adjusters' assertions that claims involved construction defects and warranty work. Work included assistance in documenting the claim, evaluation of project records, and review of maintenance records.
24. **Gas Liquids Recovery Plant** – Directed project development, engineering design, process selection, detailed design, and cost estimate for a \$4.5 million plant that recovered propane, butane, and pentanes from refinery gas streams. Sponsored project for approval.
25. **Sulfur Recovery Plant** – Home office representative, process engineer, and start-up engineer for a 120 long tons per day sulfur recovery unit. Prepared operating manual and process safety reviews, supervised commissioning and start-up of the plant, and certified performance in accordance with license guarantees.
26. **Vacuum Distillation Unit (VDU) Modernization** – Modernized a VDU to reduce bottoms production and increase crude throughput. Prepared the detailed design and supervised the \$2 million retrofit and start-up. The project demonstrated technology that was subsequently installed at three other company facilities. Sponsored project for approval and directed its implementation.
27. **Reformulated Fuels Investment Plan** – Prepared five-year and ten-year programs for investments to manufacture reformulated fuels at three refineries. Developed a gasoline blending model that incorporated the unique effects of oxygenates on gasoline vapor pressure, octane, and distillation curve into the planning process.
28. **Octane Value Arbitrage** – Implemented a three-way arbitrage strategy, which combined premium gasoline trading and exchanges with physical movements between Midwest, East Coast, and Gulf Coast markets in order to direct surplus octane capacity to markets where octane had the highest sales value. The program added \$11 million per year to refined products value.

29. **Residual Fuel Oil Supply and Trading** – Managed all operational aspects of residual fuel oil supply in the Midwest and on the U.S. East Coast, including refinery supply, purchases, imports, and sales to trading companies and utilities. Provided economic analysis to support traders' activities.
30. **Gas Liquids Supply and Trading** – Managed all operational aspects for supply and distribution of propane, butane, isobutene, and butylenes in the Midwest and on the U.S. East Coast, including refinery supply, purchases, imports, and sales to trading companies and utilities. Provided economic analysis to support traders' activities.
31. **Global Liquefied Petroleum Gas (LPG) Market Outlook** – Edited and contributed to a monthly publication providing short-term forecasts of supply and demand for gas liquids in the U.S., short-term forecasts of LPG prices in European, Middle East, and Far East markets, and analysis of global LPG trading patterns.

## Representative Experience

### *Petroleum Refining and Marketing*

**Project:** Refinery Valuation  
**Location:** California  
**Synopsis:** On behalf of Contra Costa County, prepared annual income values for four major California refineries. Work included site visits, review of refinery records, inspection of the plants, analysis of refinery yields and operating costs, review of refinery capital investments, market assessments, and preparation of economic models to support the valuations. Presented and defended valuation issues in public hearings before Assessment Appeals Boards.

**Project:** Refinery Valuation  
**Location:** Wyoming  
**Synopsis:** On behalf of the owner, prepared purchase a price allocation for various interests that had purchased a refinery. Work included evaluation of the condition of equipment at the plant, review of maintenance records, analysis of refinery yields, and evaluation of markets for crude oil and refined products. Annual reviews of operations, economic performance, and the refinery valuation were subsequently prepared for the client.

**Project:** Refinery Valuation  
**Location:** New Jersey  
**Synopsis:** On behalf of the local tax assessor, prepared a valuation for a large asphalt refinery. Work included a site visit, evaluation of the condition of equipment at the plant, review of maintenance records, analysis of refinery yields and product quality, evaluation of markets for crude oil and refined products, documentation of conclusions and expert testimony.

**Project:** Refinery Valuation  
**Location:** Indiana  
**Synopsis:** Served as an expert to value a refinery that had been closed and was in the process of demolition. Work included review of the condition of equipment at the plant, review of maintenance records, analysis of operating records, and evaluation of markets for crude oil and refined products. Prepared a report of findings and assisted in negotiation of a financial settlement.

**Project:** Refinery Valuation  
**Location:** Russia  
**Synopsis:** Served as an expert to determine economic damages related to a dispute involving the construction of three refineries in Western Siberia. Work included assessment of construction budgets and schedules for the three refineries, evaluation of markets for crude oil and refined products, refinery technology, refinery yields, and refinery income. Conclusions and analysis of income losses were documented and presented in expert testimony prior to settlement.

**Project:** Refinery Acquisition  
**Location:** West Texas  
**Synopsis:** On behalf of the seller, evaluated a refinery for acquisition by another refining company. Work included review of processing capabilities, short-term and long-term capital requirements, and future product markets. Potential economic returns for various acquisition scenarios were documented for consideration by the seller.

**Project:** Refinery Acquisition  
**Location:** Wyoming  
**Synopsis:** On behalf of a buyer, assisted in support of financing the acquisition of a condensate processing refinery. Project included evaluation of the buyer's plans to process lower-priced sour condensate in place of traditional sweet condensate, as well as a study of the potential market for products.

**Project:** Refinery Acquisition  
**Location:** Belgium  
**Synopsis:** On behalf of a trading house, evaluated a refinery for acquisition. Work included evaluation of the physical condition of the refinery, assessment of processing capabilities, and development of potential options for expansion and upgrade. An economic model was prepared and used by the client to support its offering price and subsequent negotiations.

**Project:** Refinery Acquisition  
**Location:** Germany  
**Synopsis:** On behalf of a national oil company, assisted an investment bank in evaluating the acquisition of an interest in a refinery. Work included assessment of the refinery's physical condition, evaluation of the competitiveness of its technology, assessment of markets for feedstock, and the outlook for its product markets.

**Project:** Refinery Privatization  
**Location:** Caribbean  
**Synopsis:** On behalf of an investor, assisted in the preparation of a strategic business plan for privatization of a refinery. Work included a site visit, evaluation of the condition of the existing assets, assessment of crude oil supply, analysis of future U.S. East Coast markets for the refinery's products, evaluation of potential upgrading facilities, review of capital investment, analysis of operating costs and changes in operation. A prospectus was prepared that summarized the business plan and findings were presented to potential financial partners.

**Project:** Oil Company Privatization  
**Location:** Russia  
**Synopsis:** On behalf of an investor, performed due diligence for the purchase of an integrated oil company, including refineries, terminals, retail facilities, and a trading house. Work included site visits, inspection of company assets, assessment of existing and proposed technology, evaluation of feedstock and product markets, review of capital investment programs, and analysis of manufacturing economics.

**Project:** Refinery Due Diligence  
**Location:** Middle East  
**Synopsis:** On behalf of financial institutions, performed due diligence for construction of a world-scale refinery. Work included site visits, technology assessment, analysis of feedstock supply and products offtake, review of comparative manufacturing economics, development of a market study, review of capital expenditures, evaluation of infrastructure facilities and agreements, and evaluation of the sponsor's financial model.

**Project:** Refinery Due Diligence  
**Location:** Serbia  
**Synopsis:** On behalf of the sponsor, performed a market assessment in support of financing the construction of a refinery. Work included technology assessment, analysis of feedstock supply and products offtake, review of comparative manufacturing economics, development of a market study, review of capital expenditures, and evaluation of infrastructure facilities and agreements.

**Project:** Refinery Due Diligence  
**Location:** Ohio  
**Synopsis:** On behalf of a buyer, performed due diligence for purchase of a major refinery. Work included a site visit, inspection of the facilities, technology assessment, analysis of feedstock supply and products offtake, review of manufacturing economics, review of capital expenditures, and evaluation of infrastructure facilities.

**Project:** Refinery Due Diligence  
**Location:** Oklahoma  
**Synopsis:** On behalf of the owner, assisted in support of financing to reactivate a refinery. Work included a site visit, evaluation of the condition of equipment at the plant, review of maintenance records, analysis of refinery yields, and evaluation of markets for crude oil and refined products. Subsequent to financial close, annual reviews of operations and economic performance were prepared for the client.

**Project:** Manufacturing Options Study  
**Location:** Middle East  
**Synopsis:** On behalf of the owner, prepared a capital investment strategy to manufacture high quality transportation fuels. Work included evaluation of refinery yields and operating economics for manufacturing options related to production of gasoline and diesel fuel, upgrade of residual fuels, management of light ends, and optimization of conversion capacity. Conclusions and income analysis of the various options were presented to the company board of directors.

**Project:** Manufacturing Options Study  
**Location:** Pacific Northwest  
**Synopsis:** On behalf of the owner, prepared a capital investment strategy for manufacturing and marketing operations at a major U.S. refinery. Work included site visits, evaluation of yields and operating economics for production of reformulated fuels, upgrade of residual fuels, management of light ends, optimization of conversion capacity, and competitive analysis. The economics of various manufacturing strategies were compared to the sale or closure of the refinery. Conclusions and income analysis of the various options were presented to the company board of directors.

**Project:** Manufacturing Options Study  
**Location:** East Coast  
**Synopsis:** On behalf of the owner, prepared a capital investment strategy for manufacturing and marketing operations for a major U.S. refinery. Work included site visits, evaluation of yields and operating economics for production of reformulated fuels, upgrade of residual fuels, management of light ends, optimization of conversion capacity, and competitive analysis. The economics of various manufacturing strategies were compared to the sale or closure of the refinery. Conclusions and income analysis of the various options were presented to the company board of directors.

**Project:** Manufacturing Options Study  
**Location:** Texas  
**Synopsis:** On behalf of the owner, prepared a capital investment strategy for manufacturing operations for a major U.S. refinery. Work included evaluation of yields and operating economics for production of reformulated fuels, upgrade of residual fuels, production of asphalt products, optimization of conversion capacity, and competitive analysis. An economic model was prepared and used for evaluation of refinery margins under various investment scenarios. The economics of various manufacturing strategies were compared to U.S. Gulf Coast benchmarks. Conclusions and income analysis of the various options were presented to the company board of directors.

**Project:** Toll Processing Agreement  
**Location:** Canada  
**Synopsis:** Served as an expert to assist a major international petroleum trader in asserting claims of fraud and theft against parties involved in a toll processing agreement. Work included review of refinery trading and operating records, evaluation of refinery operations, interpretation of the toll processing agreement, and preparation of exhibits used at trial.

**Project:** Force Majeure Claims  
**Location:** International Arbitration  
**Synopsis:** Served as an expert to assist a national oil company in defending allegations that it improperly issued declarations of force majeure for supply of crude oil to a major U.S. refinery. Work included evaluation of crude oil import data, review of contracts, analysis of refinery operations, determination of economic damages, and expert testimony.