

MATTHEW A. WINEFIELD, PE, CSP
Principal Consultant

CAPABILITIES

Environmental Auditing	Safety Auditing
Subsurface Investigations	Contaminated Real Property Transfers
Subsurface Remediation	Storm & Waste Water System Compliance
Phase I Site Assessments	Air Quality Management & Compliance
RCRA Hazardous Facility Closures	Comprehensive Health and Safety Plans

EXPERIENCE SUMMARY

Mr. Winefield has over 18 years of experience in environmental and safety management for industry. He provides extensive support for projects involving regulatory compliance, engineering design, and litigation support. Mr. Winefield was employed in the petroleum industry for eight years, and is an expert on environmental and safety aspects of refineries, pipelines, terminals, production facilities, and service stations. He has also provided technical support for: aerospace manufacturing, battery manufacturing, resin production, electrical component production, steel founding, and cogeneration facilities.

Mr. Winefield has a diverse environmental and safety background. His primary expertise includes project management of contaminated properties in various phases of investigation, remediation, and/or property divestiture as well as multimedia environmental compliance. He has managed subsurface projects at over 100 locations in Southern California. He has also completed projects relating to waste/storm water system design and permitting, hazardous waste treatment system permitting and closure, and emergency response planning. He has developed health and safety programs for hazard communication, injury illness and prevention, respiratory protection, electrical safety, hot work, and the like. Mr. Winefield is also versed in process hazard analysis techniques. Other projects for which he has provided a considerable amount of technical services have included agency negotiations in response to violations and litigation support. He conducts numerous training seminars regarding the topics described herein.

EDUCATION

MBA, University of California at Los Angeles
MS, Environmental Engineering, California State University, Long Beach (Summa Cum Laude)
BS, Civil Engineering, University of Illinois, Champaign/Urbana (With Honors)

REGISTRATIONS

Professional Engineer, Civil Engineering – California
Certified Safety Professional

SELECT PROFESSIONAL EXPERIENCE

Key project responsibilities for Mr. Winefield have included:

Multimedia Environmental Compliance

- Set up and supervised a technical field group in order to monitor emissions of volatile organic compounds, sulfur oxides, and nitrogen oxides from fugitive emissions sources and boiler/heater stacks. The ensuing monitoring and reporting activities complied with regulations of the South Coast Air Quality Management District.
- Established emissions estimating protocols and completed Annual Emissions Reports for over 60 facilities in Southern California.
- Permitted and closed a non-RCRA acid neutralization facility. Documents that were generated included the Operations Plan, Training Plan, Waste Analysis Plan, and Closure Plan. Post closure soil investigation activities were completed, and a letter of clean closure was obtained from the California EPA, Department of Toxic Substances Control.
- Supervised the cleaning, dewatering, and disposal activities of a non-permitted surface impoundment with K-Waste sludges. The project cost exceeded \$300,000, and was completed steadfastly in advance of a pending inspection by the local fire department and Department of Toxic Substances Control.
- Wrote waste minimization plans for two petroleum refineries, a solvent manufacturer, a resin manufacturer, a plastic bag manufacturer, and oil production equipment machine shop. Over 40 unique waste streams were successfully analyzed.
- Responded successfully to the demands of a Water Board Cease and Desist Order related to excessive discharges of phenolic wastes from a refinery storm water treatment system. Compliance was achieved by conducting source identification, cross-functional training of field personnel, and designing and installing a carbon polishing system.
- Responded successfully to the legal demands made by the Los Angeles County Sanitation District related to excessive discharges of sulfides and organic wastes from a refinery pre-treatment system. Compliance was achieved by upgrading oil/water separation and steam stripping equipment as well as by modifying laboratory chain-of-custody and analytical techniques. Reduced violation count from eight exceedances per annum to one exceedance in two years.

Multimedia Environmental Permitting

- Project engineer for the hazardous waste treatment system permitting process under the auspices of the Cal-EPA Tiered Permitting System.
- Project engineer for numerous permits obtained pursuant to the National Pollutant Discharge Elimination System (NPDES). Permits were obtained for facilities that varied in complexity from groundwater treatment systems to bulk product terminals to petroleum refineries.
- Project engineer for permits obtained for water pretreatment systems for Publicly Operated Treatment Works (POTW).
- Project manager for complex SCAQMD permitting related to refineries and bulk terminals. Familiar with Title V permitting requirements.

Process Safety Management and Hazard Analyses

- Coordinator for all facets of a Process Safety Management (PSM) program in anticipation of bringing a fully integrated refinery on line. Responsibilities included updating and/or generating programs relative to management of change, pre-startup safety reviews, and process hazard analyses. The estimated PSM start-up budget was \$600,000 for three months.
- Facilitator for Process Hazard Analysis (PHA) Studies for more than 40 capital and expense projects related to refineries, bulk terminals, and pipelines. Examples of facilities analyzed were a proposed \$1.2 million inter-terminal pipeline network expansion and an unrelated 30-mile pipeline network.
- Facilitator for PHA studies of various magnitudes within the following refinery and petrochemical systems:
 - Crude Unit
 - Butane Isomerization Unit
 - Fluidized Catalytic Cracking Unit
 - Hydrofluoric Alkylation Unit
 - Platforming/Reforming Unit
 - Polyethylene Plant
 - Product Storage and Blending Systems
 - Sulfuric Acid Regeneration Unit (Conducted in Ulsan, Korea)
 - Vacuum Unit
 - Vapor Recovery Systems
 - Waste Water Treatment Units

Compliance with General Industrial Safety Orders

- Completed chemical safety and industrial hygiene audits of two battery manufacturing plants composed of 325 employees. Recommendations were made for spill containment of sulfuric acid, lead monitoring, ventilation controls, and heat stress management.
- Wrote safety training and compliance programs for a manufacturer of compact discs and film consisting of 120 employees. Topics included hazard communication, injury and illness prevention, and hazardous materials emergency response.
- Wrote and implemented safety and compliance programs for a petroleum refinery consisting of 400 employees. Topics included asbestos safety, safety permitting systems, hot work, and incident investigations.
- Generated compliance programs for an industrial construction company consisting of 15 employees. The programs included respiratory protection and substance abuse prevention.

Emergency Release Response Programs

- Managed a comprehensive spill response program for a petroleum refinery, terminal, and 70 miles of pipelines. The program entailed writing spill response plans pursuant to federal and state regulations and conducting training and field oil spill response drills.
- Wrote numerous Spill Prevention Control and Countermeasure (SPCC) plans for a myriad of industries.
- Successfully updated and revised an incident response program in conjunction with a local fire department in response to a release of sulfur dioxide that affected an elementary school.
- Modified a voluminous Pipeline Contingency Plan pursuant to requirements of the California State Fire Marshall.

Contaminated Real Property Assessments

- Project manager for subsurface monitoring program at a 90-acre petroleum refinery. The program included the installation of 27 wells on and off site. Groundwater contaminants included phase-separated hydrocarbons, volatile organic compounds, and chlorinated hydrocarbons. Groundwater treatment was averted upon submittal of a natural attenuation study to the Los Angeles Regional Water Quality Control Board.

- Project manager for 50 of Chevron's service stations and bulk terminals, which were in various phases of investigation and remediation. Approximately twenty percent of the sites received agency clean closure in less than one year. Remedial technologies employed included natural attenuation, soil vapor extraction, biopiles, soil incineration, and pump and treat with stripping/carbon adsorption of dissolved phase contaminants.
- Project manager for investigation and remediation of a 14-acre petroleum bulk storage facility, which was being divested. The project entailed removing all above ground tanks, underground tanks, loading racks, and subsurface piping. 5000 cubic yards of hydrocarbon impacted soil were removed pursuant to a fate/transport model and health risk assessment that was conducted for the site. A closure certification was received from the Los Angeles Regional Water Quality Control Board four months after investigation activities first began.
- Project engineer for remedial investigation/feasibility study (RI/FS) of a large marine terminal in the Port of Los Angeles, which was being divested. The RI/FS addressed the remediation of light non-aqueous phase liquids and dense non-aqueous phase liquids. Technologies which were examined included skimmer pumping, total fluids pumping, dual pumping systems, recovery trenching, and multi-phase fluid extraction. The RI/FS was an instrumental document for the prospective purchaser of the facility.
- Project engineer for one petroleum terminalling company among a consortium of operators within a 10-acre bulk terminal. The consortium initially demanded a 50 percent contribution for an estimated \$4 million remediation project. After Mr. Winefield reviewed and reported on data pertaining to analytical chromatograms, release records, and transmissivity calculations, the consortium's demands were reduced to 12 percent, saving \$1.5 million.
- Project manager for more than 50 Phase I Environmental Site Assessments conducted from 1998 through 2002. Facilities included petroleum terminals, resin manufacturers, gasoline service stations, industrial office buildings, and lubrication facilities.

Legal Support

- Expert witness for mediation and arbitration proceedings involving a waste management dispute between a treatment, storage and disposal facility (plaintiff) and its waste transporter (defendant). Due in large part to Mr. Winefield's testimony, the plaintiff recovered over 90 percent of its demand.
- Used knowledge of environmental regulations and innovative cost estimating techniques to support legal action against a general liability insurer, thereby obtaining a \$4 million policy buy-back.

- Conducted technical research in support of legal action against several potentially responsible parties (PRPs) for a 40-acre Orange County landfill. Activities included: technical review of contaminant data; advising on petroleum waste disposal practices; agency file reviews; agency interviews; and interviews with annuitants from various potentially responsible parties. The PRP investigation reports are being used by the California Department of Toxic Substances Control to support Imminent and Substantial Endangerment Orders.
- Drafted critical sections of purchase agreements for the transfer of contaminated properties. The impacted sites ranged in size from one acre to 15 acres.
- Played a key role in obtaining a Prospective Purchaser Agreement and Covenant Not to Sue from the Los Angeles Regional Water Quality Control Board. These documents provided sufficient protection to the purchaser of 14-acre site contaminated with petroleum hydrocarbons, chlorinated hydrocarbons, and lead.
- Represented clients at variance proceedings before the Hearing and Governing Boards of the South Coast Air Quality Management District.

Environmental and Safety Training

Mr. Winefield conducts at least six environmental and safety training sessions per year for both management and field personnel.

PROFESSIONAL HISTORY

Winefield & Associates, Inc., Long Beach, CA, Principal Consultant, 1996 - Present

Powerine Oil Company, Santa Fe Springs, CA, Senior Environmental and Safety Engineer, 1991- 1997

Chevron USA, Inc., La Habra, CA, Project Engineer, 1989 - 1991

United States Gypsum, Chicago, IL, Design Engineer, 1988 - 1989

Soils and Materials Consultants, Inc., Chicago, IL, Engineering Inspector, 1985 - 1987

AFFILIATIONS

Air and Waste Management Association

American Society of Civil Engineers

Society for Risk Analysis