

PAUL K. ENGEL, MS, JD, REA, CPP
Senior Consultant

CAPABILITIES

Permitting Including Title V Operating Permits
Environmental Planning/Policy Development
Regulatory Support
Health Risk Assessments

Regulatory/Legislative Analyses
Expert Witness/Litigation Support
Compliance Audits/Reviews
Emission Inventories

EXPERIENCE SUMMARY

Mr. Engel has over thirty years of professional experience which has involved legal, research and environmental engineering. He has managed programs and conducted studies on environmental issues: including regulatory interface, air and water permitting, and environmental compliance, testing and reporting. He has secured air permits from SCAQMD (over **1,000 permits** since 1992), Ventura County APCD, Santa Barbara APCD, San Bernardino County APCD, and San Joaquin Valley Unified APCD. The range of projects included air emissions testing, underground tanks, property transfer assessments, thermal efficiency improvements, water treatment, and abandoned oil gasification site assessment and remediation. He has managed multi-disciplinary staffs of engineers, hydrogeologists, chemists and biologists in projects from concept through completion, on time and within budget. Mr. Engel has been involved with SCAQMD RECLAIM program issues and also has completed permit applications pursuant to Title V of the Clean Air Act. He obtained NPDES and Waste Discharge Requirements from LA and Santa Ana Regions, California RWQCB. He has negotiated project characterization and remediation plans with the California DOTSC (formerly DOHS). Mr. Engel has successfully completed the SCAQMD Certified Permitting Professionals accreditation to expedite processing requirements and was recognized as a Qualified Environmental Professional by the Institute of Professional Environmental Practice.

EDUCATION

JD, Western States University College of Law, Fullerton, California, With Scholastic Merit
MS, Chemical Engineering, University of Toronto, Toronto, Ontario, Canada
BS, Chemical Engineering, University of Toronto, Toronto, Ontario, Canada

REGISTRATIONS

Certified Permitting Professional
Registered Environmental Assessor, California
Qualified Environmental Professional
ISO 14000 EMS Provisional Auditor Certification

SELECT PROFESSIONAL EXPERIENCE

Key project responsibilities for Mr. Engel have included:

Multimedia Environmental Compliance

- Conducted compliance audits for utility facilities in Northern and Southern California (over 25 plants - San Diego Los Angeles, Sonoma, Lake, Santa Cruz, and Monterey Counties). Assessed compliance with permit conditions for Title V facilities. Assessed also Proposition 65 and Ozone Depleting Compounds (40CFR82) compliance. Provided written findings and root cause analyses.
- Reviewed status of public nuisance issue for a composite fabricator. Performed analyses of emissions and surrounding impacts. Supported regulatory negotiations. Prepared applications for permit modifications. Participated in Hearing Board strategy preparation. Secured order to allow continued operation. Avoided major violation by verifying past agency actions.
- Provided regulatory impact assessment of Regulation XIII, New Source Review (NSR) study for the facility relocation and Consolidation of Bulk Petroleum Distribution Facilities. Developed emission offset requirements after BACT evaluation. Permit applications required District NSR balance review and air dispersion modeling. Assessment included draft position paper to define SCAQMD regulations and available exemptions.
- Prepared application and supporting documentation to secure an Emission Reduction Credit (ERC) Certificate for heat treating facility in Anaheim for solvent degreaser taken out of service. Calculations of allowable quantity, NSR balance, BACT analysis were considered. Negotiation with District staff to resolve closure was required.
- Directed the preparation of annual fees submissions at four bulk terminals within SCAQMD jurisdiction. The format required calculation of tank losses, loading losses, fugitive emissions, and computation of the quantity of toxic air contaminants.
- Directed site assessment, site characterization, permitting and remedial operations. Managed staff with over 50 engineers, geologists, hydrogeologists and technicians. Prime contracts with major oil companies with over 70 active sites. Secured over 20 soil venting permits and over 10 water discharge permits. Obtained closure on 3 major remediation sites. Sales increased from \$4.5 million to over \$7 million in two years.

- Conducted all phases of a large diesel emissions study to evaluate heat recovery design parameters. Assessed coal ash sulfur retention parameters and managed air emissions testing and analyses. Evaluated various process exhaust streams for energy recovery potential. Conducted NO_x measurement continuous emission instrumentation certification.
- As Senior Project Engineer, managed air emissions testing and analyses. Conducted all phases of large diesel emissions study to evaluate heat recovery design parameters. Assessed coal ash sulfur retention parameters. Evaluated various process exhaust streams for energy recovery potential. Conducted NO_x measurement continuous emission instrumentation certification.

Multimedia Environmental Permitting

- Prepared and secured over 1,000 applications for Permits to Construct within Air Quality Management Districts and Air Pollution Control Districts in California. The applications addressed packages for utilities, printers, brick and pipe manufacturing, manufactured homes, gasoline bulk terminals, semiconductor/aerospace, reinforced composites manufacturers and other industry sectors including initial Title V applications; and the assessments of carcinogenic and toxic air contaminants for new and modified sources, particularly SCAQMD Rule 1401. The applications were processed under New Source Review (NSR) regulations. NSR requires Best Available Control Technology (BACT) assessments, air dispersion modeling, and emission offset determinations. Work included grass roots plants and major relocations.
- Obtained information on all processes and materials consumed in home manufacturing. Responded to a Notice of Violation. Acted quickly to mitigate potential fines and penalties by preparing application packages including Title V revision and securing of emission reduction credits. Expedited permit processing during numerous meetings with SCAMD management. Negotiated permit conditions. Secured permits after coordinating the distribution of public notices.
- Obtained information on all processes and materials consumed in spa manufacturing plant design. Prepared application package including Title V application for grass-roots plant. Expedited permit processing with numerous meetings with SCAMD management, and negotiated permit conditions. Secured permits for major plant without the purchase of emission reduction credits (ERCs) and without requiring the distribution of public notices.

- Managed the SCAQMD Permit to Construct application for an SCR DeNO_x System for Utility Boiler to comply with Rule 1135 compliance requirements. Expedited permit processing by responding to District information requests. Supported regulatory activity to speed modification of ammonia delivery system after catalyst poisoning discovered. Negotiated modification without submission of application to eliminate fees and application approval delays.
- Performed a RECLAIM review for a Long Beach Gasoline Refiner, analyzing the status of SCAQMD's RECLAIM Program. The impact of various elements was outlined, and the potential issues highlighted. Further actions were recommended.
- Directed efforts to secure South Coast Air Quality Management District (SCAQMD) Permits to Construct a major expansion of a bulk terminal. Major issues being addressed include Regulation XIII New Source Review and Rule 1401, Carcinogenic Air Contaminants. Current operations and permits are being evaluated to determine capacity limitations. Proposed operations will be analyzed for changed conditions.
- Permitted a large scale Los Angeles printer with a significant projected VOC emissions increase as a result of the addition of new press, and with the projected the need to purchase Emission Reduction Credits (ERC's) with value in excess of \$1,000,000. Identified emission reduction opportunity from previous permitting activities at the facility, and interfaced between client and SCAQMD to prioritize permitting, and eliminated any requirement to purchase ERC's.

PROFESSIONAL HISTORY

Winefield & Associates, Inc, Principal Consultant, Present

Engel & Associates, Inc., Managing Principal, 1992 - 2008

Environmental, Science and Engineering, Inc., Director of Air Quality 1991 - 1997

W.W. Irwin, Inc., Regulatory Affairs Manager 1988 - 1990

Southern California Edison, Supervisor of Environmental Engineering 1979 - 1988

Southern California Edison, Corporate Attorney 1985 - 1986

Southern California Edison, Supervising Research Engineer 1979 - 1985

KVB Incorporated, Senior Project Engineer 1977 - 1979

Canadian Federal Government 1971 - 1977

AFFILIATIONS

Air and Waste Management Association

California State Bar Association