

DOUGLAS A. GRAY P.E.

EXPERIENCE SUMMARY

Mr. Gray is a self-employed consultant with 40 years' experience in positions of increasing levels of responsibility and complexity, including program and project management, engineering supervision, and independent consulting. Work experience includes the chemical, mining, energy, nuclear, and environmental industries. Mr. Gray's focus over the past 20 years has been providing project management support to the US Department of Energy (DOE), and in particular, performing nearly 80 independent cost estimates (ICEs), independent cost reviews (ICRs), and external independent reviews (EIRs) of major DOE projects and programs ranging in cost from \$5 million to \$60 billion. These reviews include independent assessment of performance baseline costs, life cycle cost estimates, D&D costs, work breakdown structures, risk assessments and contingency analyses. He has also co-authored several DOE training courses, procedures, and guides.

DETAILED EXPERIENCE

Independent Consultant

2001-Current

Independent cost reviews and cost engineering support for the federal sector. Mr. Gray performed cost reviews for several DOE capital line-item projects such as the Remote-Handled Low Level Waste Project at Idaho, and the Saltstone Disposal Unit #6 at the Savannah River Site. Independent cost estimates completed by Mr. Gray include the Highly Enriched Uranium Material Facility (HEUMF) Project at the Y-12 National Security Complex, and the Muon-to-Electron Conversion Experiment Project at FermiLab. Mr. Gray was responsible for the cost review and risk assessment portions of the external independent reviews conducted for the DOE Environmental Management baseline programs at Brookhaven National Laboratory, Lawrence Livermore National Laboratory, Pantex, Nevada Test Site, Lawrence Berkeley National Laboratory, Los Alamos National Laboratory, Hanford Reservation, Waste Isolation Pilot Plant, Idaho National Laboratory, Oak Ridge, and the Portsmouth/Paducah sites. He currently serves as a subject matter expert for DOE's Smart Grid Investment Grant (SGIG) program, where he is responsible for monitoring the scope, schedule, and costs for 15 projects around the U.S. designed to upgrade the nation's electric grid. He also currently supports KPMG as an environmental specialist for its annual audits of the total environmental liability at DOE's Environmental Management sites. In this capacity, Mr. Gray serves as a technical, cost, and risk specialist during the audits of future liability costs. He also co-authored the new Level 2 and Level 3 risk management courses for DOE, as well as the new DOE cost estimating course. In addition, Mr. Gray has supported several independent cost reviews and risk assessments for projects with the National Science Foundation and Federal Highways Administration.

Program Manager – Foster Wheeler Environmental Corporation

1992-2001

Responsible for the management, implementation and performance of the following major contracts:

- \$9 million contract with the U.S. Department of Energy for preparation of independent cost estimates (ICEs), validations, and project assessments for strategic projects and programs within the DOE complex. Representative projects include:

- High Level Waste Removal from Filled Waste Tanks Project at Savannah River,
- Tritium Extraction Facility at Savannah River,
- Accelerator Production of Tritium; and
- Tank Waste Remediation System at the Hanford site.
- Multi-year contract with a private client to perform External Independent Reviews of major DOE projects, including the Distributed Information Systems Laboratory (DISL) and the Terascale Simulation Facility (TSF) at Lawrence Livermore National Laboratory.
- \$5 million contract with the General Services Administration for management, organizational and business improvement services (MOBIS) for all federal agencies.
- \$3 million task order-based contract with Los Alamos National Laboratory for environmental, safety and health technical support services.
- Architect/Engineering, Construction and Construction Management (AECCM) contract with Kaiser-Hill Company, LLC at the Rocky Flats Environmental Technology Site.

Program Manager – Los Alamos Technical Associates, Broomfield, Colorado

1990-1992

Managed the following projects:

- Preparation of Air Pollution Emission Notices for the State of Colorado for more than 30 individual buildings at the Rocky Flats Environmental Technology Site
- Mechanical and electrical as-build services for the Oak Ridge Y-12 plant fire protection system
- R&D project designed to acquire laboratory test data, refine equipment design, and enhance overall marketing of a titanium electrode-based water purification and waste treatment system

General Manager – International Mining Chemicals, Lakewood, Colorado

1989

Responsible for the direction and execution of all activities for a start-up company that marketed activated carbon to the North American gold industry.

Consultant – Broomfield, Colorado

1987-1988

- Project manager for turnkey design, engineering, procurement, and construction management of a belt flaker and support systems for flaked alcohols production at a specialty chemicals plant.
- Plant manager for a heap leach gold mining operation in Arizona. Work required field operations, personnel management, heap leach R&D, and gold recovery unit operations.

Senior Engineer – Rocky Mountain Energy Company, Broomfield, Colorado

1978-1987

Responsible for process engineering and technology development, including:

- Process engineering and detailed design for in situ uranium recovery and synthetic fuels projects,
- Investigation of new and innovative technologies related to coal combustion/utilization,
- Research and pilot testing activities for uranium recovery; and
- Technical representation on special company task forces.

Chemical Process Engineer – Conoco, Inc., Ponca City, Oklahoma

1975-1978

Prepared heat and material balances, process flow diagrams, P&IDs, equipment and instrument specifications, process descriptions, and operating manuals for numerous projects in the specialty chemicals and petrochemical industries.

EDUCATION

Iowa State University of Science and Technology

Bachelor of Science in Chemical Engineering, 1975

REGISTRATIONS AND CERTIFICATIONS

Registered Professional Engineer – Colorado, Ohio