

**BACKGROUND:**

Denis Pout is a Director of Denis Pout Engineering Pty Limited, established in 1993, and was previously a Principal of GHD. He is an Engineer with over 40 years of wide ranging experience both in Australia and internationally and specialises in bulk materials handling and transportation systems, major industrial power electrical services and control systems, power generation and distribution and industrial utilisation. He has published and presented papers on Automatic Control System Conveying Systems Engineering and Engineering Management.

**QUALIFICATIONS:**

- ▶ Bachelor of Engineering (Electrical Engineering), University of NSW, 1965

**AFFILIATIONS:**

- ▶ Fellow, The Institution of Engineers, Australia, 1982 (M 1970, Grad, 1965)
- ▶ Member, The Institution of Electrical Engineers, London, 1982 (Grad 1965)
- ▶ Senior Member, Institute of Electrical and Electronics Engineers Inc, New York, 1987
- ▶ Registered Professional Engineer (Electrical), Queensland, 1980
- ▶ Chartered Engineer, Council of Engineering Institutions, London, 1982
- ▶ Member, Chartered Institute of Logistics & Transport in Australia, 1995
- ▶ Fellow, Australian Institute of Energy, 1996

Denis Pout was educated at Fort Street Boys' High School and joined CSR Ltd., as an apprentice, in 1959, studying Electrical Engineering at University of NSW, the last two years full time. After completion of his university studies in 1965, he spent two years in Europe with Brown Boveri and Company, Switzerland, and GEC Ltd, London. On his return to Australia in 1967, he was appointed second Engineer and subsequently Chief Engineer at the Tumut Plant of CSR's subsidiary Pyneboard Pty Ltd and was responsible for commissioning, maintenance and capital expansion work.

In 1974 he joined Fox Manufacturing Company as Chief Electrical Engineer where he was responsible for the design, contract management and commissioning of mine winding installations, conveying plants and underground mining machinery. In this position, negotiated the sale of major mine conveying systems to customers in Australia, Mexico, New Zealand and Tunisia and managed the technical and commercial implementation of the plant as well as negotiating purchases of major items of specialised plant and subcontract services in Australia, Europe and North America.

In 1978 he was appointed an Associate of Planner, West and Partners Pty Ltd and in 1980 became a Director of Planner West Pty Ltd, which merged with Gutteridge Haskins and Davey Pty Ltd in 1981. He served with GHD in the firm's Sydney,

Brisbane and Newcastle practices and provided advice nationally on electric power generation, reticulation and control and on bulk materials handling plant. In addition, as a Principal of the practice, he served on regional boards and specialist board sub-committees which formulated and monitored regional and discipline policies and performance.

In 1993, he established his own practice, based in Newcastle, NSW, specialising in strategic studies and provision of high level specialist advice and forensic services for electric power reticulation and control for major industrial, power generation and mining projects, energy conversion, energy and demand management and engineering management.

On behalf of a family private investment trust, he has negotiated the purchase and long term leasing to major corporate tenants of two strata commercial units comprising the whole top floor of the recently restored and heritage classified Earp Gillam Bond Store on the Foreshore at Newcastle East.

#### **CAREER DETAILS:**

**January 1993 - Present      Director, Denis Pout Engineering Pty Limited**

- Direction of dust control management studies for Hay Point Services and for Anglo Coal, Moura.
- Management of studies of dust control for stages 6 & & upgrading of Dalrymple Bay Coal Terminal, Mackay, Queensland and of review of coal dust agglomeration techniques. (Ports Corporation of Queensland, Prime Infrastructure and Babcock & Brown Investment Services, and Dalrymple Bay Coal Terminal)
- Management of feasibility study of receipt of coal delivered by rail to Delta Electricity Western power stations (Wallerawang & Mt Piper) culmination in report reviewing twelve options and recommending further investigation of a preferred short list of four. (Delta Western)
- Management of development of strategic plan for staged development of electrical, water, telecommunications, sewerage and drainage services at Dyke Point. (Newcastle Port Corporation)
- Management of development of contaminated water treatment plant for Wallerawang power station. (Delta Electricity)

- Management of review study of Hunter Valley railed coal capacity and prioritisation of proposed upgrading works. (Rail Infrastructure Corporation)
- Management of feasibility study into railed coal receipt for Wallerawang and Mount Piper power stations (Delta Electricity)
- Management of ash disposal study and follow-up planning work for Wallerawang power station.
- Specialist advice on coal handling and transportation to Port of Newcastle and on project management and contract formation matters for Mount Arthur North Project. (BHP-Billiton)
- Automatic receipt and boiler supply coal sampling plants, Delta Electricity, Wallerawang
- Assessment of impact on Hunter Valley Coal Chain of Mount Arthur North Project for export tonnages ranging from 4 MTPA to 9 MTPA.
- Expansion of product stockpiles at Macquarie Colliery and associated stacking and reclaiming systems and environmental controls.
- Life extension study (PWCT 2040) of PWCS Carrington Coal Terminal. This study was highly commended for Engineering Excellence in 1997 by the Institution of Engineers, Australia, Newcastle Division.
- Management of transportation studies for coal, sugar, grain and other bulk materials
- Management of engineering and construction of Stage 3A (Third shiploading berth) of PWCS –Kooragang Coal Terminal
- Management of strategic planning of Stage 3 upgrade proposed for Kooragang Coal Terminal, Newcastle.

- Conducted design audit and ongoing technical and operational advice on surface coal handling plant at Kenmare underground colliery, South Backwater, Queensland, for SBCL, an operating subsidiary of QCT.
- Prepared indicative capital costs and operating and maintenance costs, manning forecast and preliminary stores inventory for the coal handling plant at proposed Map ta Phut power station, Thailand, for a consortium including CRA.
- Prepared and advised on implementation of strategic plan for long term development of electrical services and controls for Kooragang Coal Terminal.
- Prepared conceptual design of electrical services for berth and stockyard extension of Kooragang Coal Terminal.
- Provides ongoing advice on electrical engineering, control and information systems and engineering management to Port Waratah Coal Services.

1978 - 1992

**Gutteridge Haskins & Davey Pty. Ltd. (formerly Planner West Pty. Ltd.)**

**Principal - Newcastle Practice**

- Managed engineering feasibility studies for extension of berth and extension of stockyard at Kooragang Coal Terminal. Directed engineering studies and prepared consolidated project cost estimates (\$125M) and programme.
- Managed design and construction of small ship receival berth and associated conveying system and bins at Kooragang Coal Terminal for Port Waratah Coal Services.
- Managed study of upgrade options for Mount Thorley Coal Loader.
- Managed study of options to integrate Newdell, Liddell and Hunter Valley Rail Loaders into a common user facility.

- Managed engineering study for Upper Hunter Coal Terminal for Joint Coal Board.
- Managed engineering study for Wallarah unloading system at Kooragang Coal Loader.
- Directed study of infrastructure and coal handling facilities for a feasibility study of Bengalla Mining Lease, for Runge Mining Pty Ltd.
- Directed conceptual and detail design of water management facilities for underground mines at Cooranbong, Newstan and Awaba.
- Directed a study of creek diversion works necessary to permit Longwall Mining at Cooranbong Colliery.
- Directed conceptual design and cost estimates of part of pit top facilities and drift conveyor at Wakefield Colliery and overland conveyor and stockyard upgrading at Macquarie Coal Preparation Plant for FAI Mining Ltd.
- Directed conceptual design and cost estimates of infrastructure including power supply, water supply and wastewater treatment, workshops, bathhouse and administration buildings and fuel handling and storage for redevelopment of Swamp Creek Mine for Hebden Mining Company.
- Performed inspections of electrical, controls and communications installations at Bulk Sugar Terminals at Bundaberg, Mourilyan, Mackay and Lucinda Point and recommended work necessary to upgrade installations.
- Directed Study of Land Requirements for coal stockpiling and future water management at Myuna Colliery.
- Performed concept study for Coal Handling Plant including major regenerative conveyor for Coal Corp, Stockton, New Zealand.
- Developed conceptual design and cost estimates of electrical and control systems for Coal Handling Plant for proposed power station and Bream Bay, New Zealand.

- Directed conceptual and detailed design for 2 MTPA coal unloading project at Trincomalee Power Station, Sri Lanka.
- Conducted Conceptual Outline Design of electrical and control systems for study of 15 MTPA coal import and transshipment facility at Ao Phai power station, Thailand.
- Investigated and reported on accident with 6.6kV switchgear at Goonyella opencut.
- Directed Feasibility Study for 1.7 MW base load power station for gold mine in-pit conveying and crushing, Telfer Gold Mine, Western Australia.
- Directed study of conveyor starting problems and adequacy of underground power supplies at Baal Bone and Clarence Collieries for Coalex Pty Ltd.
- Reported on adequacy of mine monitoring system at Fernbrook Colliery for Coalex Pty Ltd.
- Directed design and construction of electrical control and communications systems for expansion of Charbon Colliery and new washery for Blue Circle Southern Cement Limited.
- Directed design and construction management of CTC signalling of coal loading loop at Baal Bone Colliery for Coalex Pty Ltd.
- Directed design and construction of electrical and control systems for Fisherman Islands Grain Terminal for Bulk Grains Queensland.
- Investigated and reported on failures of gearboxes and other items on 800 TPH drift conveyor at Clarence Colliery. Recommended rectification and modification work necessary on dual 355kW slip ring drive starters to improve overall plant reliability.
- Managed study of underground dewatering systems and water treatment plant at Clarence Colliery for Coalex Pty Ltd.

- Directed several studies to review engineering and operations of Port Kembla coal loader for Maritime Services Board of New South Wales.
- Design and contract administration of major materials handling, mining, and commercial projects including:
- Fifield Magnesite Mine (Harbison A.C.I. Pty Ltd).
- Vales Point Coal Supply by Rail and Overland Conveyor (Electricity Commission of New South Wales).
- Wyee - Mandalong - Eraring Coal Conveyor (Electricity Commission of New South Wales).
- Abbot Point Coal Loader Onshore Facilities, North Queensland (Mount Isa Mines Ltd).
- Bellambi Colliery Rail Loading System (Bellambi Coal Company Ltd).
- Liddell Power Station Coal Handling Plant Upgrading (Electricity Commission of New South Wales).
- Feasibility and conceptual design studies for a number of projects including the above and:
- East Lithgow Colliery (Austen & Butta)
- Channel Island Power Station Coal Handling Plant (NTEC)
- Alcan Kooragang Island Bulk Unloading Facility (Alcan)
- Collie to Bunbury Overland Conveyor (SECWA)
- Eraring Power Station Rail Unloading Facility (ECNSW)
- Mount Piper PS Rail Unloading Facility (ECNSW)

1974 - 1977

**Fox Manufacturing Company, Smithfield, NSW  
Chief Electrical Engineer**

- Design, contract administration, commissioning and approval of slope and shaft winders, both drum and friction (Koepe) type. Specific experience included:
- Directed electrical and mechanical commissioning of the Corrimal production hoist Koepe winder. This was a 600 TPH shaft hoist with dual 1000 hp (1500 kW total), 500 rpm drive motors in a Ward-Leonard drive with 2000 hp synchronous motor and dual 750 kW, 500 V DC generators.
- Negotiated the supply and directed concept design of electrical plant for Tower & Cordeaux winders. These included:
- 1000 hp men and materials winder with thyristor convertor drive.
- Dual 1000 hp (1500kW total) Ward-Leonard drives on production hoists.
- Design and approval of flameproof and intrinsically safe electrical equipment for underground machines for use in coal mines in NSW and Queensland.
- Negotiation and administration of major materials handling contracts including:
- Coal handling plant Huntly Power Station, New Zealand
- Steelworks Conveying System, Sicartsa, Mexico
- Copper Mine Conveying System, La Caridad, Mexico
- Underground Phosphate Conveying System, Sehib, Tunisia.

- Professional Papers Inverters for Starting of Large Conveyors - RA Clack and DA Pout Presented at Townsville Conference June 1978 A.I.M.M.
- Automatic Control of Bulk Material Handling Systems - D A Pout and J R Broadbent Presented at International Conference on Bulk Materials Handling, Storage and Transportation, Wollongong, July 1986 I.E. Aust.
- Power Systems and Underground Conveyor Drives - D A Pout Presented at Mine Electric Power Systems - Reliability and Safety Workshop, Toowoomba, August, 1987 I.E. Australia, I.E.E.E., and Darling Downs Institute of Advanced Education.
- The Importance of Systems Engineering for Conveyors - DA Pout Presented to a joint meeting, Sydney, November 1987 of A.I.M.M. and Coal Preparation Society
- Large Conveyors - Updating Control Technology - D A Pout Article on use of modern Australian developed liquid regulators to control slipping motor drives on high power conveyors published in Australian Bulk Handling, August-September 1996
- Future Developments in Bulk Materials Handling, Storage and Transportation. Keynote address to second day of IIR seminar Maximising Performance in Stockpiling, Reclaiming and Storage, Perth WA February 2002.