

Lee Clark – Director, AE&D Fire Pty Ltd



Qualifications / Accreditation / Membership / Affiliations:

Master of Fire Safety Engineering	University of Western Sydney
Graduate Exam	Institute of Fire Engineers
Advance Diploma in Electrical Technology	Advanced Diploma of Fire Technology
Accredited Fire Safety Engineer (BPB)	Grade C10 Fire Engineer NSW Building Professionals Board – Accreditation No. BPB2770
Registered Professional Engineer of Queensland (BPEQ)	Board of Professional Engineers of Queensland Registration No. 20229
Member	Society of Fire Safety – Engineers Australia
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Experience Overview

Fire Safety Engineering involving the development of performance-based solutions to address departures from the Building Code of Australia. The performance solutions include the use of fire and smoke modelling using Computational Fluid Dynamics, egress assessments including 3-dimensional pedestrian movement models.

Lee has undertaken fire safety studies across all industry sectors including high-rise, residential, commercial, industrial, transportation, healthcare and hospitality.

Recent projects have included residential buildings constructed using Cross Laminated Timber.

Projects have included a wide variety of buildings such as data centres, defence facilities, hotels, exhibition and convention centres, warehouses, hospitals, airport terminal buildings, train stations, supermarkets, vehicular and pedestrian tunnels, iconic public buildings and structures, government buildings and heritage buildings.

Lee also has extensive experience in the design of active fire protection and detection systems for conventional buildings, industrial occupancies, defence facilities, hangars, data centres, transformers, LPG storage facilities, and petrochemical tank farms.

This includes the design sprinklers, high and medium velocity water spray systems, gaseous fire suppression systems, fire detection system including smoke, flame and thermal detection systems. Emergency warning systems, public address systems and nurses call systems.

Previous Experience/Employment History

Director AE&D Fire Pty Ltd (2008 – present)

Fire Engineering, Building Regulation and Building Surveying functions include:

- Comprehensive Building Code Compliance Strategies
- Assessment of all buildings, unrestricted by class or size
- Assessment of complex alternate building designs under the Performance Requirements of the BCA
- Development Alternative Solutions under the Performance Requirements of the BCA
- Liaison with authorities and consultants on a wide range of projects, including the provision of advice regarding BCA interpretation
- Assessment of Fire Safety Engineered Designs and Analysis with regard to proposed Alternate Solutions under the Performance Requirements of the Building Code of Australia

Connell Wagner Senior Fire Engineer (1999-2008)

Senior Engineer responsible for fire services and fire safety engineering.

Major fire engineering projects include:

- The Special Forces Training Facility (SFTF) at Holsworthy
- Global Switch, Sydney Switch 1
- Pihana, Mascot, web hosting facility
- 383 Kent Street, Sydney
- Sydney International Airport Terminal expansion
- Green Hills Shopping Centre – Newcastle

- Olympic Village Residences and dance halls
- ABC Collocation Project
- 747 Hanger, Mauritius
- The National, Victoria Docks, Melbourne
- Transgrid Substation, Ultimo D&C design.
- Kens Site, Sydney.

Fire safety engineering projects:

- The Special Forces Training Facility (SFTF) at Holsworthy.
- Darwin Exhibition and Convention Centre
- Global Switch, Sydney Switch 1 (data centre)
- Olympic Village Athletes Dining Facility, Homebush
- Northside Storage Tunnel - Scotts Creek and Lane Cove
- Ansett Valet Parking, Ansett Sydney Domestic Terminal, NSW
- Randwick Racecourse Vehicular and Pedestrian Tunnels, Randwick, NSW
- Santos LPG pumping station, Moomba, SA
- Unibar, Student Union Bar at University of Wollongong, NSW
- Gerard Industries Warehouse, Ingleburn, NSW
- Oasis Arena, Basketball Stadium for Canterbury Leagues Club
- Bundamba Facility, British American Tobacco, QLD
- Castle Street Community Centre and Residential Tower for Brewster Hjorth Architects.
- Cross City Tunnel tender design for Baulderstone
- Coles Supermarkets including – Springwood QLD, Sylvania NSW, Baulkham Hills NSW, Wagga Wagga NSW, Cannon Hill QLD, Ashfield NSW, Toormina NSW, Broadway NSW, Belmont NSW, Capalaba QLD, Grafton NSW, Kenmore QLD, Toowong NSW, Doonside, NSW.
- Cross City Tunnel – egress design and fire resistance level of structure
- ANSTO Lucas Heights Replacement Research Reactor

University of Western Sydney Lecturer (2005-2007)

- Lectured in building fire systems at the University of Western Sydney for the fire safety engineering and building surveying courses

Connell Wagner Discipline Leader for Fire Services (1997-1999)

- Seconded to Connell Wagner as Discipline Leader for Fire Services on the Sydney International Airport Terminal 2000 upgrade responsible for design and documentation Preparation of policy matters for Resort Management Division;

Kuttner Collins Senior Engineer (1989 – 1999)

- Major projects included schools, aged care hostels, educational institutions, libraries, office buildings, hospitals, residential buildings, airport terminal buildings, shopping centres and retail outlets.
- Ansett Sydney Terminal Extension, Stage 5
- Ansett Sydney Terminal Extension, Stage 6
- International Terminal B, Sydney International Airport Installation of Automatic Fire Sprinklers, EWIS/PA

- Queen Victoria Building, Sydney – Building Management and Monitoring System

Fire Control Sprinkler Estimator (1988-1989)

- Sprinkler design and estimation

Cundall, Johnston and Partners (London) Sprinkler Designer and General Building Services Coordinator (1987-1999)

Responsible for the design of sprinklers for projects including:

- Daily Mail Printworks, Docklands, London

Benham Building Services (London) Grade 5 Engineer in the Sprinkler Division (1987-1999)

Design and project management of sprinklers to office buildings, warehouses, nightclubs and shopping centres. Projects included:

- Selfridges Store refurbishment, London, UK
- City Airport, Docklands
- Lewis Store, Norwich, UK
- Ealing Shopping Centre, London, UK

Protection Projects (Johannesburg) Design Draftsman (1981-1985)

Design of medium and high velocity water spray systems. CO₂ and Halon suppression systems, foam systems and sprinkler systems for projects including:

- Voortrekkerhoogter South African Defence Force Fighter Base
- Hendrina Power Station upgrade

Mather and Platt (Johannesburg) Design Draftsman – Special Risks Design Office (1981-1985)

Design of medium and high velocity water spray systems, foam systems and sprinkler systems to high risk industrial plant including:

- Uranium Solvent Extraction Plant, South West Africa
- Modderfontein Dynamite Factory, Transvaal
- Secunda and Sasolburg Synthetic Oil Plant Tank Farms, Northern Transvaal and Orange Free State
- Oil Transfer Pipeline Foam Sprinkler Systems to pumping stations – Transvaal to Natal
- LPG Gas Storage Tanks
- St Helena goldmine