

Name: Neil Walls, Principal, Neil Walls Consulting Pty. Ltd.

Work Areas: Contamination and containment engineering Support

Specialist laboratory and animal facility budget, scope and functional reviews

Design, briefing and budgeting Reviews

Specialist containment facility checks, inspections and reports

Compliance checks of documents; compliance reviews and inspections Animal cage handling scope, capacity, design and logistics checks

Nationality: Australian and British Citizenship, born Geelong, Australia

Languages: English, Spanish

Oualifications: Bachelor of Mechanical Engineering, University of Melbourne 1973

Diploma of Education, Melbourne College 1975

Graduate Diploma of Humanities, Languages, University of La Trobe 1991

Affiliations: Member, Institute of Engineers, (MIE Aust.), Chartered Professional Engineer

NPER-3 Registered No. 249316, EM 1175, Registered Building Practitioner

Registered Practitioner, Queensland, RPEQ 5291

President (2013-2015), founding director to 2015, current member - Association of

Biosafety for Australia and New Zealand (ABSANZ)

Registered Third Party Assessor, Australian Federal Department of Agriculture and

Water Resources (DAWR)

Member, Australian and New Zealand Laboratory Animal Association (ANZLAA)

Member, American Biological Safety Association (ABSA)

Member American Association for Laboratory Animal Science (AALAS)

Member Aquatic Engineering Society (AES) Member European Biosafety Association (EBSA)

Committee Member, Australian Standard AS/NZS 2243 part 3: "Safety in Laboratories, Microbiological safety and containment"

TB Team Roster (WPRO) for infection control, engineering and laboratory

strengthening

Participant, Biocontainment Engineering Working Groups, International Federation

of Biosafety Associations (IFBA)

Regarding the use of this CV to support competitive submissions:

Please use this CV in its entirety, acknowledging that Neil Walls Consulting Pty. Ltd. is an external consultant to a submission/team.

Neil Walls Consulting does not offer exclusive support for individual competitive submissions. However, all support invitations are treated as confidential.

Professional Experience:

April 2002 to Present, Neil Walls Consulting Pty Ltd Director and Sole Practitioner.

MAJOR ONGOING ROLES:

- Inspections and reports for Department of Agriculture to support containment and regulatory compliance at locations with imported quarantine risk organisms.
- Providing biocontainment training courses with Bio2ic Pty. Ltd. These include facility design for microbiology, animals, plants and invertebrates, waste decontamination and gaseous decontamination.
- Preparing submission to AS/NZS 2243.3 for new aquatic organism containment section
- Support Department of Agriculture, compliance audit role.
- Support role for World Health Organization, Western Pacific Region, for the "Stop TB" programme and related advisory and training duties.



NOTE: PC2, PC3 refer to Australian Standard AS/NZS 2243.3: 2010; Safety in Laboratories, microbiological safety and containment, Physical Containment levels 2 and 3, approximately equivalent to BSL2 and BSL3 respectively.

ONGOING AND COMPLETED WORK:

- Support and peer review, compliance advice, bio-resources facility Dunedin, NZ
- Support and review of design and construction for high containment plant facility, Auckland, NZ
- Review and engineering support for University research facility, Wellington, NZ
- Review and engineering support role for Auckland Hospital PC3 TB diagnostic laboratories.
- Review, support and compliance advice for greenhouses and automated plant facilities, Victoria
- Design advice and support for two containment laboratory projects in Hong Kong
- Support, peer reviewing and compliance auditing for CSIRO greenhouses, Urrbrae, SA
- Design support for two tropical medicine research containment facilities, Townsville & Cairns.
- Support role with Federal Department for new post-entry quarantine facility for DAWR, including egg hatching, plant quarantine, animal import and supporting laboratories
- Regulatory and compliance advice, marine and Antarctic laboratories, Hobart, Tasmania
- Review, compliance and inspection service, medical research lab project, Hobart, Tasmania
- Vivarium facility concept and detail support review role, Children's Hospital Research, Perth.
- Inspection, compliance and report role, QBI (Queensland Brain Institute)
- Third party assessor; animal, plant insect and microbiological laboratories, Bundoora, Victoria.
- Full compliance audit of two high containment laboratories in New Zealand, Christchurch TB laboratory, and containerized laboratory in Dunedin
- Review of quarantine facilities throughout Australia to support modernization project.
- · Review of architectural, engineering and liquid waste systems for aquatic animal facility, SA.
- Compliance support role for CSIRO for NCRIS PC4 animal and laboratory facilities.
- Support design team and review documents for containment laboratories and animal facility at PC3 level for University of Auckland, NZ. Compliance inspections, documents at completion.
- Documentation review, advice for regulatory compliance, Swinburne University PC3 laboratory
- Design support for new TB diagnostic laboratory for UPM, Kuala Lumpur, Malaysia.
- Advice on glass house containment compliance aspects, Melbourne, Canberra and Adelaide.
- Review of PC3 animal facility, JCSMR, Canberra.
- Advice on upgrade of tuberculosis laboratory, SA Pathology, Adelaide.
- Compliance inspections, Murdoch University, Perth.
- Facility inspection and OGTR PC2 facility compliance report for internal biosafety committee, Bendigo, Victoria.
- Concept support for an animal facility at Deakin University, Geelong. Work included layout
 optimization, cage handling and wash areas, clean and contained animal holding layout
 recommendations and staff/material/animal/waste entry and exit considerations.
- Report and recommendations for a small xenopus and rodent facility at ANU, Canberra, including support for the design team to achieve regulatory and standards compliance.
- Review, recommendations for Department of Primary Industry, NSW, related to bacteriology and virology laboratories, diagnostic areas and plant, large animal high containment facilities.
- Reviews of design and installation of containment facilities at KBRB and QHSS Laboratories in Dutton Park and Coopers Plains, Queensland. Inspections for regulatory compliance.
- Review and recommendations related to containment and animal housing for a veterinary facility in Adelaide, South Australia.
- Assistance with design advice and upgrading recommendations for PC3 laboratories in Sydney,
 Adelaide and New Guinea, mainly related to TB and general diagnostics, some research, import.
- PC3 upgrade of containment laboratory for VIDRL, Melbourne.
- Animal facility cage handling area design brief preparation for TRI, Brisbane.
- Support the preparation of Consultant Briefing for proposed Peter Doherty facility, Melbourne.
- Concept review of PC4 containment waste treatment system for upgraded facilities at QHSS laboratories, Brisbane.
- Concept design and briefing preparation for a large pathology laboratory complex in Perth, Australia, including TB, bacteriology and virology PC3 laboratories.



- Review and assist design team with Department of Agriculture compliance issues for animal containment and PC3 laboratory containment for Creutzfeldt Jacob Disease research and associated laboratories at a neurological sciences precinct for Melbourne University.
- Department of Agriculture compliance advice and recommendations for a research facility using small and large animals at Royal Children's Hospital, Melbourne, Victoria, Australia.
- Undertake microbiological review for CSIRO Animal Health Laboratories, Geelong, Australia.
- Waste treatment review, report for large animal containment facility, Wagga Wagga, NSW
- Review of layouts, procedures for plant accelerator facility, SA for compliance
- Inspection, report and liaison with authorities for a Risk Group 3 rodent containment animal facility at SA Pathology, South Australia.
- Preparation of briefing and compliance guidelines for a new research facility for DEPI Victoria. This project includes medium and high containment animal, plant and invertebrate areas.
- Assistance with design of PC2 laboratories, animal facilities and PC3 invertebrate facilities for regulatory compliance at WEHI Victoria.
- Review design layouts, services and strategies for a new rodent containment facility at Moss Vale, New South Wales for the Garvan Institute, Sydney, Australia.
- Support, assistance with concept design and review of design team proposals for a new WHO influenza research facility at VIDRL, Melbourne.
- Development of options, planning proposals for multi-purpose PC3 facility for SA Pathology.
- Design and construction support role for Emergency Response Laboratory to PC3 standard for Royal Darwin Hospital.
- Inspection, capability assessment of PC3 laboratory at Queen Mary Hospital, Hong Kong.
- Design and preliminary documentation of an avian flu laboratory project in Thailand for the National Institute of Animal Health. This includes a high containment animal facility.
- Review of Department of Defence laboratories at Fishermans Bend, with assessment of procedures for dealing with containment issues of high risk laboratories.
- Upgrade advice and design of PC-4 plant facility at Floreat Park, Perth, WA for CSIRO. Concept
 design of amendments to facility mechanical services, waste treatment systems, revised
 contained glass house enclosures, and improved safety provisions.
- Concept design and construction support role for a high containment research facility for Westmead Hospital, Parramatta. This included client briefing and liaison, development of layout design, with particular emphasis on waste liquid treatment requirements and options.
- Concept study of services and early budget preparations for two research facilities in New Zealand. The laboratory areas include infectious diseases research, parasitology research, tissue culture preparation, epidemiology laboratories, and special purpose PC-3 laboratories.
- Preliminary design and layouts of a new central rodent facility at Sydney University. This
 included attendance at client meetings, and development of strategies for equipment options
 related to animal cage handling, waste removal, clean materials transfer, and cage filling.
- Audit for Department of Agriculture: PC-2 and PC-4 plant facility at DNRE, Frankston.
- Review and inspection of containment large animal facility for DNRE, Bendigo, the preparation and submission of a report with estimates to upgrade the facility to PC-2 standard for OGTR.
- Tour of primate facilities in the U.S.A. and provision of a report to Monash University to support the development of a new non-human primate facility at the Churchill campus.
- Concept design of primate holding upgrades for an animal facility at Monash University.
- Upgrade of animal holding areas for a production facility at Monash University.
- Inspections, reports and recommendations, forensic analysis laboratory for NSW Police.

October 1998 - March 2002 S2F Ptv. Ltd.

- Combined clean and contained rodent facility at Westmead Hospital, Sydney.
- Vivarium for University of Queensland and CSIRO. Design and documentation of PC-3 areas and central steam sterilizer facilities.
- Concept layouts and animal support facility designs for Phenomics Facility, ANU, Canberra.
- SPF mouse facility at Monash University, Clayton, Victoria, including equipment selections.



- Smithkline Beecham, Tianjin, PRC, Multi-Product Facility, manufacturing, packaging upgrade
- Site services upgrade for Johnson and Johnson, Shanghai, PRC.
- Containment liquids manufacturing facility for CSL, Parkville, Victoria
- Biotech "STRIP" laboratories at Monash University, Clayton.
- Blood analysis laboratory for the University of Hong Kong.
- Pilot manufacturing suite for Elastomeric (experimental elastomer developers).
- Liquids manufacturing facility for Pharmacia and Upjohn, Kalamazoo, USA.
- Nicorette plant in Puerto Rico for Pharmacia and Upjohn.
- Nuclear accelerator facility "Metal Free Laboratory", ANU, ACT.
- Initial concept design of vivarium for small animals at Biopolis, Singapore.
- Site master plan for Arecibo, Puerto Rico for Pharmacia and Upjohn.

February 1997 - October 1998

WBM Pty Ltd - Building Services Group

- Design, documentation, Aged Care-Mental Health facilities, Prince Charles Hospital, Brisbane
- Design of containerized explosives manufacturing facility for Dyno Nobel Asia Pacific Ltd.
- Mechanical engineering design support role, Princess Alexandra Hospital, Brisbane.

1994 - 1997

Cleanroom Technologies (Aust) Pty Ltd

Senior Design Engineer - Mechanical and Process Engineering Services

- Mechanical Services for Upjohn Suzhou Pharmaceutical development in Suzhou, PRC.
- Design and documentation, Freeze Drier Suite at CSL Limited, Parkville, Victoria.
- Construction stage Process Engineering Services, Sterile Adjuvant process at CSL Limited.
- Process Services for a Sterile Liquids filling plant at Delta West, Perth, Western Australia.
- Pharmaceutical Plant to produce Tablets, Liquids, Cremes, Sterile Infusion Products, Vietnam.
- Tablet Packing Facility, Blister Packing, Bottle Packing Lines for Merck Sharp & Dohme, NSW.
- Design and documentation of Quality Control Laboratories and an Enclosed Process Module (tabletting) for Merck, Sharp and Dohme, NSW.
- Design and documentation of pharmaceutical areas at Wyeth, Smithfield Plant, NSW.
- Engineering advice to law firm regarding failures associated with NSW Bowlers Club fire. Submission and presentation to the Coroner's Court of NSW.
- Design and documentation of hopper, granulation and tablet compressing suites, packing lines, HVAC, Vacuum facilities and reticulated piped services Parke Davis, Caringbah NSW.

1985 – 1994 Irwin Johnston & Partners Engineers Pty Ltd, Melbourne

Senior Engineer - Mechanical Services

- Upjohn Suzhou Pharmaceutical Plant (Process Design)
- Parliament and Law Courts, N.T., Museum of Science, Spotswood,
- Spicers Paper manufacturing facility design, Preston
- Red Funnel Fisheries, Ammonia Refrigeration and Piping Systems

1981 – 1985 Australian National Antarctic Research Expeditions (ANARE)

- Senior Construction Officer and work programme manager Davis Base, Antarctica
- 1980 1981 Young Austen Young Pty Ltd Hertfordshire U.K.
 - Worked as Project Mechanical Engineer, various projects
- 1978 1980 Drake & Scull Engineering Pty Ltd London U.K.
 - Worked as Project Mechanical Engineer, various projects

1975 – 1978 Irwin Johnston & Partners Pty Ltd

• Worked as design engineer in multi-discipline consultancy practice.

1973 – 1975 PMG and Telecom Australia

Design mechanical engineer for PMG Department and later Telecom Australia (now Telstra).