CURRICULUM VITAE

NAME:		Christopher Myles Clunies-Ross
POSITION:		Managing Director & Principal Engineer, Airlabs Pty Ltd
TERTIARY EDUCATION:		PhD in the Department of Chemical Engineering at the University of Queensland, 2001 (Thesis: Minimising Dioxin Emissions from Biomedical Waste Incinerators) Master of Engineering Science (Qual), University of Queensland, 1994 Diploma of Education, University of Melbourne, 1986 Bachelor of Science, LaTrobe University, 1985
CAREER HISTORY:	Since 1993	Managing Director, Airlabs Pty Ltd (formerly trading as UniLabs Environmental). With offices in Brisbane and Gladstone, this company specialises in air/stack gas monitoring, dioxin studies and combustion research.
	1990 - 1992	Partner in Pollution Consulting Services. Consulted to industry on various issues associated with the control of emissions from high temperature incinerators, including dioxin reduction strategies, specification of pollution control equipment and the monitoring of stack gas emissions. Also prepared environmental impact assessments and works approval applications.
	1992	Principal Scientist, National Analytical Laboratories, Sydney. Manager of the Air Monitoring Section, Sydney. NATA signatory of the Air Monitoring Section, Melbourne.
	1990 - 1992	Senior Environmental Chemist, National Analytical Laboratories, Melbourne. Manager and NATA signatory of the Air Monitoring Section.
	1989	Chemist, Air Water Noise (AWN) Consultants, Melbourne. Performed sampling and analysis of air contaminants.
	1987 - 1989	Scientific Officer, Victorian EPA, Operations Division. Involved with the inspection and licensing of industrial premises. Formulated control strategies, including the specification of appropriate pollution

	control equipment. Participated extensively in third party appeal conferences.
1987	Technical/Scientific Officer, Victorian EPA, Air Quality Branch - Technical Services Section. Undertook stack monitoring of emissions from industrial premises.
1986	Technical Assistant, CSIRO, Division of Chemical and Wood Technology, Melbourne. Conducted research into waste water treatment.

MAJOR DIOXIN MONITORING PROGRAMS & STUDIES:

Since 1990 I have participated in numerous dioxin monitoring programs and studies at industrial plants throughout Australia, New Zealand, Malaysia, the Philippines, Vietnam, Saudi Arabia and the United Kingdom, including the following:

Cement and Lime Kilns

- Holcim (Vietnam) Ltd (Hon Chong, Vietnam)
- Union Cement Corporation (La Union, Philippines)
- Union Cement Corporation (Bulacan, Philippines)
- Union Cement Corporation (Davao, Philippines)
- Union Cement Corporation (Lugait, Philippines)
- PT Semen Cibinong Tbk (Narogong, Indonesia)
- PT Semen Cibinong Tbk (Cilacap, Indonesia)
- Holcim (New Zealand) Ltd (Westport, New Zealand)
- Queensland Cement Ltd / Cement Australia (Gladstone, QLD)
- Queensland Cement Ltd – now decommissioned (Darra, QLD)
- Australian Cement Ltd / Cement Australia (Railton, TAS)
- Australian Cement Ltd / Cement Australia (Kandos, NSW)
- Adelaide Brighton Cement (Birkenhead, SA)
- Adelaide Brighton Cement (Angaston, SA)
- Adelaide Brighton Cement / Cockburn Cement (Munster, WA)
- Blue Circle Southern Cement Ltd (Waurn Ponds, VIC)
- Blue Circle Southern Cement Ltd (Marulan, NSW)
- Geelong Cement Ltd – now decommissioned (Geelong, VIC)
- Pacific Lime / Cement Australia (Rockhampton, QLD)

Medical Waste Incineration

- Mayday Hospital Energy Centre (South Croydon, London, England)
- Tongkah-Medivest Sdn Bhd (Melaka, Malaysia)
- Motherwell-Bridge Technology (Malaysia) Sdn Bhd (Petaling Jaya, Malaysia)
- Medical Waste (Wellington) Limited (Wellington, New Zealand)
- Medical Waste Group Canterbury Branch (Christchurch, New Zealand)
- Medical Waste Group Otago Branch (Dunedin, New Zealand)
- Ace Waste Pty Ltd (Willawong, QLD)
- Clinical Waste Australia Ltd (Silverwater, NSW)
- Collex Pty Ltd (Dry Creek, SA)
- Fairfield Infectious Diseases Hospital Incinerator – now decommissioned (Fairfield, VIC)
- Totalcare Industries Ltd / Stericorp (Mitchell, ACT)

- Baxter Healthcare Pty Ltd (Old Toongabbie, NSW)
- Manning Base Hospital (Taree, NSW)
- Concorde Hospital (Sydney, NSW)
- Theiss Environmental Ltd (Unandarra, NSW)
- Medicollect / Stephenson & Ward Incineration Co. (Welshpool, WA)
- Redcliffe Hospital (Redcliffe, QLD)

Municipal and General Waste Incineration

- Energy Developments Limited (Dapto, NSW)
- Waverley Woolarra Process Plant – now decommissioned (Waterloo, NSW)
- GNB Batteries (Lower Hutt, New Zealand)

Sludge Incineration

- ANI Malaysia (Pasir Gudang Shipyards, Johor, Malaysia)
- Melbourne Water (Bangholme, VIC)

Liquid Waste Treatment and Disposal

- Waste Services NSW (Lidcombe, NSW)
- Worth Environmental Ltd (Dandenong, VIC)
- Energy Services International PCB Decontamination Plant (Northgate, QLD)
- BCD Technologies' Transformer Oil Treatment Plant (Narangba, QLD)
- Nufarm Ltd Plasma Arc Furnaces (Laverton Nth, VIC)

Metal Processing

- BHP Steel (Port Kembla, NSW)
- WMC Olympic Dam (Roxby Downs, SA)
- Kaal Australia (Yennora, NSW)

Petrochemical

- Petrokemya Petrochemical Plant (Jubail, Saudia Arabia)
- Southern Pacific Petroleum / Suncor Energy (Gladestone, QLD)
- Orica MIEX Plant (Deer Park, VIC)
- Orica Chlorine Plant (Botany, NSW)

Thermal Soil Remediation

- Australian Defence Industries Ltd (St Mary's, NSW)
- Toxfree Systems (Orange, NSW)

Boilers, Generators and Power Stations

- ECNZ Huntly Power Station (Huntly, New Zealand)
- Liddell Power Station (Muswellbrook, NSW)
- Stanwell Power Station (Rockhampton, QLD)
- NRG Power Station (Gladestone, QLD)
- Liddell Power Station (Muswellbrook, NSW)
- Carter Holt Harvey Timber Mill (Putaruru, New Zealand)
- Firestone (Christchurch, New Zealand)
- Banks Avenue School (Christchurch, New Zealand)

Pulp & Paper

- Visy Pulp & Paper (Tumut, NSW)
- Visy Pulp & Paper (Murarrie, QLD)

PUBLICATIONS:

- Clunies-Ross, C, PhD thesis "Minimising Dioxin Emissions from Biomedical Waste Incinerators", University of Queensland, Brisbane, 2000.
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- Stanmore, B, Clunies-Ross, C, "Towards a Mechanism for the *De Novo* Formation of Dioxins in Waste Incinerators'', Environmental Science and Technology, 2000.

- Clunies-Ross, C, Brash, I, "Report on the Characterisation and Estimation of Dioxin and Furan Emissions from Waste Incineration Facilities", Environment Australia, 1999.

- Clunies-Ross, C, Stanmore, B, & Millar, G, "The Dioxin Formation Potential Of Regenerative Soot Traps Using Copper Doped Diesel Fuel", Nature, 1996.

- Taucher, J, Clunies-Ross, C, et al. "PCDD, PCDF and PCB emissions under various operating conditions from a waste oil furnace", Chemosphere, 1992.