



## ► Kevin Rolfe

Kevin Rolfe Consulting Limited  
Chemical Engineer and Environmental Management Specialist  
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## Countries of Work Experience

New Zealand, Thailand, Italy, Canada, USA, Viet Nam, Australia, Malaysia, Republic of Korea, Philippines, China, Brunei, Solomon Islands, Singapore, Cambodia, Fiji, India, Pakistan, Papua New Guinea, Hong Kong, Samoa, Vanuatu, Federated States of Micronesia, Palau, Sri Lanka, Indonesia

## Qualifications

1972	Bachelor of Engineering (Chemical), University of Canterbury, New Zealand
1974	Master of Applied Science (Environmental Studies), University of Melbourne
1969-1979	Certificates of Proficiency for Economics, Accounting Analysis, Politics, Human Geography and Regional Planning papers, New Zealand Universities
1991	Certificate in General Management, University of Auckland Graduate School of Business
2000	Certificate in Company Direction, Institute of Directors in New Zealand
2006	Certificate in Resource Management Act Decision-Making (current until 31 December 2019)

## Community Service

Justice of the Peace – New Zealand (ministerial)

## Professional Affiliations

- Member, Institution of Chemical Engineers, United Kingdom
- Chartered Chemical Engineer
- Registered Chemical Engineer, Australia
- Chartered Scientist
- Member, Association of Consulting Engineers New Zealand
- Member, Institute of Directors in New Zealand
- Member, ProGroupNZ (a group of independent international development consultants)
- Member, Resource Management Law Association of New Zealand
- Member, Appita (the technical association serving the Australian and New Zealand pulp and paper industry)

## Fields of Speciality

- Kevin Rolfe is a specialist in the technical, policy, and social aspects of the environmental consequences of industrial and urban development. He has 40 years of environmental management experience in various capacities, both locally and internationally, and especially in air quality management and related fields.
- Kevin is a Chartered Chemical Engineer and a Chartered Scientist with advanced interpretive and analytical skills. Those attributes led in an easy way for him to be closely involved in early advances in environmental science and management in the 1970s. They continue in his current work areas, including Peer Review and Resource Management Act hearings Commissioner appointments.

- Kevin's particular areas of expertise are:
  - process technology (in general)
  - chemical manufacturing industry
  - thermal and geothermal power generation
  - waste management, including animal rendering, and waste to energy conversion
  - oil refining and gas processing
  - pulp & paper manufacture, wood processing, and drying processes (wood, milk, etc.)
  - iron & steel manufacture, metals processing, and mining & minerals processing
  - municipal wastewater treatment and industrial water pollution control
  - motor vehicle emission control strategies (including automotive fuels quality)
  - air quality implications of road building and use
  - air quality management (including interpretation of atmospheric dispersion modelling)
  - industrial and domestic air pollution control (including odour)
  - health effects of air pollutants (including development of air quality guidelines/standards)
  - environmental management & conservation administration
  - climate change science and policy
  - ozone layer depletion science and policy
  - chemical hazards and environmental health risk assessment
  - environmental economics (including market based instruments), and environmental law
- After a successful career in a significant New Zealand Government statutory role, including during the 'think big' industrial development era, Kevin entered the international arena as the Air Quality Management Specialist, World Health Organization, based in Kuala Lumpur, Malaysia. These duties included as an adviser to the Governments of the Asia-Pacific region on various aspects of environmental management. That work has periodically continued, most recently as a consultant to the World Bank, the Asian Development Bank, Swisscontact, etc.
- From 1996 to 1998 Kevin was the foundation General Manager (CEO) of Environmental Services Australia, the commercial arm of the EPA Victoria.
- Kevin Rolfe has a record of achievement and quality product delivery.

### Examples of Specific Assignments

Current areas of work include:

- air quality management and related fields, including mentoring of young professionals;
- independent reviews of the environmental performance of industrial enterprises;
- institutional strengthening and capacity building via international development assistance projects;
- the multi-disciplinary aspects of motor vehicle emission control strategies; and
- independent hearings Commissioner for regional/unitary councils under the Resource Management Act.

Since 1991, Kevin's work can be categorised as the carrying out of specific assignments (i.e., projects and programmes). Examples of these projects and programmes are provided below, with some consolidation of individual assignments.

<b>2015</b>	<b><i>New Zealand</i></b> Engaged by the Ministry for the Environment to peer review sections related to air quality of a State of the Environment report.
<b>2015</b>	<b><i>New Zealand</i></b> Engaged to review a draft Commentary of the Parliamentary Commissioner for the Environment on the 2014 Air Domain Report (a State of the Environment report).
<b>2014</b>	<b><i>New Zealand</i></b> Engaged to produce an air quality assessment to accompany an application for a Discharges into Air Permit for the D1 Drifting Event, Pukekohe.
<b>2014</b>	<b><i>New Zealand</i></b> A Keynote speaker on The Current State of Environmental Management after 22 years of the Resource Management Act 1991, New Zealand Trade & Industrial Waste Forum conference, Hamilton.
<b>2013</b>	<b><i>Australia</i></b> Engaged by the Queensland Department of Environment and Heritage Protection to carry out an independent assessment of the Linc Energy Underground Coal Gasification Plant Flare.
<b>2013-2014</b>	<b><i>New Zealand</i></b> Engaged by Auckland Council to prepare an Air Quality Index for Auckland.
<b>2013</b>	<b><i>New Zealand</i></b> Engaged to carry out an air quality assessment of the Yashili New Zealand Dairy Co Limited Milk Spray Drying Plant in Pokeno, North Waikato.
<b>2013</b>	<b><i>Switzerland</i></b> Attendee at the International Society for Environmental Epidemiology, International Society of Exposure Science and International Society of Indoor Air Quality Environment and Health – Bridging South, North, East and West, conference, in Basel.

<b>2012-2018</b>	<b>Australia</b> Member of a team to carry out Industrial Facilities audits for the Environment Protection Authority of Victoria, Melbourne.
<b>2011-2014</b>	<b>New Zealand</b> Engaged by Genesis Energy in an overarching independent peer review role of the air quality aspects of the re-consenting of Huntly Thermal Power Station, including consultation processes. and follow-up peer review work.
<b>2010-2012</b>	<b>New Zealand</b> Team member/internal peer reviewer of the Health Research Council update of Health and Air Pollution in New Zealand (HAPiNZ).
<b>2010</b>	<b>New Zealand</b> Engaged by Contact Energy Limited to review and evaluate the tenders for a project to reduce hydrogen sulphide discharges in cooling water from the Wairakei Geothermal Power Station.
<b>2010-2012</b>	<b>New Zealand</b> Engaged by the National Institute of Water and Atmospheric Research (NIWA) to independently peer review their scientific studies related to motor vehicle emissions and air quality effects.
<b>2009 &amp; 2013</b>	<b>New Zealand</b> Engaged by the Greater Wellington Regional Council as a hearings Commissioner for a sludge dewatering facility and a steel & aluminum can manufacturing and painting plant.
<b>2009</b>	<b>New Zealand</b> Member of the Ministerial Technical Advisory Group to review the National Air Quality Standards.
<b>2009</b>	<b>New Zealand</b> Engaged by the Nelson City Council (a unitary council) as the sole hearings Commissioner for hearings related to the Nelson Air Quality Plan.
<b>2008-2014</b>	<b>New Zealand</b> Engaged by the Auckland Regional Council in a mediation role regarding PVL Proteins Limited, and as a Member/Team Leader of the (two-person) Peer Review Panel for PVL Proteins.
<b>2007</b>	<b>New Zealand</b> Engaged by Winstone Limited to review the ambient air monitoring programme at Three Kings Quarry, Auckland.
<b>2006 &amp; 2011</b>	<b>New Zealand</b> Engaged by Living Earth Limited to advise on odours from greenwaste composting, and by the Thames-Coromandel District Council on odour control associated with the co-composting of greenwaste and biosolids.
<b>2005-2008</b>	<b>New Zealand</b> Engaged by the Waitakere City Council to advise on the air quality issues of reverse sensitivity related to proposed land use plan changes, and by the Matamata Piako District Council to review the Development Concept Plan of Evonik Degussa Peroxide, Morrinsville.

- 2005-2014**      **New Zealand**  
Engaged by the Otago Regional Council as a hearings Commissioner for sulphuric acid and phosphatic fertiliser, Portland cement manufacture, animal rendering, and sewage sludge drying processes.
- 2003-2004**      **Viet Nam**  
Team member to address the environmental aspects of a World Bank loan preparation regarding road safety improvement.
- 2003-2005**      **Indonesia**  
Engaged by the Asian Development Bank to prepare air quality policy, and to address the environmental aspects of a loan preparation regarding natural gas for vehicles.
- 2002-2014**      **Pan Asia**  
Regular attendee at the Better Air Quality (BAQ) conferences, Hong Kong, Philippines, Indonesia, Thailand, and Sri Lanka.
- 2001-2013**      **New Zealand**  
Member/Team Leader of the (two-person) North Shore City Council/WaterCare Services Peer Review Panel for the Rosedale Wastewater Treatment Plant.
- 2001-2006**      **New Zealand**  
Engaged by the Waikato Regional Council as a hearings Commissioner, and to process applications for resource consents for geothermal power stations and Kraft pulp mills.
- 2001-2002**      **New Zealand**  
Part author of the Ministry of Transport report on the Health Effects due to Motor Vehicle Air Pollution in New Zealand.
- 2001**            **New Zealand**  
Engaged by the Bay of Plenty Regional Council as a hearings Commissioner for sulphuric acid manufacture.
- 2001-2010**      **New Zealand**  
Engaged by Transit/New Zealand Transport Agency to provide expert evidence to hearings on road building projects and use, and policy on air quality assessments for state highway projects.
- 2000-2005**      **Philippines**  
International Consultant on inputs to the ADB-funded Metro Manila Air Quality Program; engaged by the World Bank to prepare the Philippines Environment Monitor 2002 (Air Quality); engaged by Swisscontact to evaluate their Manila air quality project.
- 2000-2009**      **New Zealand**  
Engaged by the New Zealand Refining Co Ltd to independently review their environmental performance for consultation with Maori Iwi (Patuharakeke).

- 2000-2014**      ***New Zealand***  
Engaged by Newmont Waihi Gold as an independent consultant to prepare technical reports and give evidence at resource consent hearings, to review the results of air quality monitoring and to facilitate scientific assessments of impacts.
- 2000-2003**      ***New Zealand***  
Engaged by Fletcher Challenge Ltd to provide an independent assessment of dioxin and PCB emissions from steel-making at Pacific Steel, and by Waste Management NZ Ltd to provide an independent assessment of emissions of PCBs at Redvale landfill.
- 1999-2003**      ***Asia/Pacific***  
A Period Contract: Environment Sector under the New Zealand Official Development Assistance Programme, including a member of the team to review the Pacific Initiative for the Environment.
- 1998-2013**      ***New Zealand***  
Engaged by the Auckland Regional Council/Auckland Council to advise on policy issues, most especially fuel quality matters; to carry out, manage or peer review various air quality studies, including reviews of the ambient air quality monitoring programme; and peer review work.
- 1998-2001**      ***New Zealand***  
Engaged by the Canterbury Regional Council to prepare peer reviews of the work of staff, carry out assessments of air quality management activities, and to give expert evidence at hearings (specifically, air pollution from coal combustion).
- 1998-2014**      ***New Zealand***  
Regular attendee at Resource Management Law Association and Environmental Defence Society annual conferences.
- 1998-2013**      ***New Zealand***  
Engaged by the Auckland Regional Council/Auckland Council to process applications for resource consents (especially chemical manufacturing), to visit industries to assess compliance with resource consents, and to train/mentor staff.
- 1998-2001**      ***New Zealand***  
Engaged by the Ministry for the Environment to review the New Zealand Ambient Air Quality Guidelines and to prepare papers for a motor vehicle emission control strategy.
- 1998-2014**      ***New Zealand***  
Engaged by the Auckland Regional Council/Auckland Council as a hearings Commissioner regarding a wide range of industrial processes, in the energy, waste and manufacturing sectors.
- 1998**            ***Australia***  
Engaged by the Project Chair of the National Environment Protection Measure for Ambient Air Quality to give independent advice on the development of national air quality standards.

- 1997**      ***Samoa, Vanuatu, Federated States of Micronesia, Palau***  
AusAID Consultant on a Formulation Mission for an Environmental Management Project: Capacity Building for Environmental Management in the Pacific.
- 1996**      ***Pakistan***  
ESA Project Director responsible for organizing and supervising Environmental Services Australia inputs to the AusAID Punjab Environmental Institutional Strengthening project.
- 1996-1999**      ***Papua New Guinea***  
Project Director of the multidisciplinary AusAID Department of Environment and Conservation Institutional Strengthening project.
- 1996-1997**      ***India***  
Member of the two-person Project Management Group/ESA Project Director for Environmental Services Australia inputs to the AusAID Hyderabad Waste Management Project.
- 1994-1995**      ***Viet Nam***  
WHO Staff Member on various Air Quality Management/Environmental Health Activities, Ho Chi Minh City, Vung Tau, Haiphong and Hanoi, including the Integration of Health and Environment Concerns in Sustainable Development.
- 1994**      ***Solomon Islands, Singapore, Philippines***  
Accompanying WHO Staff Member on the Review & Analysis of WHO's Collaboration in Environmental Health and Sustainable Development.
- 1993-1994**      ***Malaysia, Philippines, China***  
WHO Representative at various meetings, including the ESCAP/UNDP High-level Meeting on Environmentally Sound and Sustainable Development in Asia and the Pacific, Kuala Lumpur, the World Bank Urban Air Quality Management Workshop, Manila, and the High-level Round Table Conference on China's Agenda 21, Beijing.
- 1992-1995**      ***Philippines, Brunei Darussalam, Cambodia, Fiji***  
WHO Staff Member on various assignments related to Air Quality Management, including preparation of an Air Quality Management Master Plan for the Philippines.
- 1992-1995**      ***China***  
WHO Staff Member on various assignments on Air Quality Management Activities (including Health Effects studies), Beijing, Shanghai, Shenyang, Benxi and Haikou.
- 1992-1994**      ***Thailand***  
WHO Representative at various meetings in Bangkok, including the WHO/UNEP Interregional Meeting on Education and Promotion for Supportive Environments for Health, the WHO/UNEP Global Environmental Monitoring System Human Exposure Assessment Location Coordinators Meeting, and the UNDP/UNEP International Symposium on Core Data Needs for Environmental Assessment and Sustainable Development Strategies.



**1992**

***Republic of Korea***

WHO Staff Member on the Reduction of Particulate Matter Emissions from Diesel Vehicles, Seoul and Ulsan, and Keynote Speaker at the World Environment Day International Seminar on Urban Air Pollution and Strategies, Seoul.

**1991-1995**

***Malaysia***

WHO Staff Member on various air quality management and environmental health assignments in Kuala Lumpur, including the response to brown haze from Indonesian forest fires, many technical training activities, such as the Regional Workshop on Motor Vehicle Emission Control, and Member of the Supervising Panel for an Air Quality Management Study for Kuala Lumpur.

## Professional Experience

### **KEVIN ROLFE & ASSOCIATES LIMITED/KEVIN ROLFE CONSULTING LIMITED**

**1991; 1998 to present**

*Director*

Consultant Chemical Engineer and Environmental Management Specialist. Areas of the consultancy are air quality management, integrated pollution control, and best practice environmental management, in New Zealand and overseas. Activities include environmental policy advice to regional and national Governments; institutional strengthening and capacity building via international development assistance projects; independent reviews of the environmental performance of industrial enterprises; membership of Peer Review Panels for selected industry; the carrying out of projects on the multi-disciplinary aspects of motor vehicle emission control strategies; appointments as an independent Resource Management Act hearings Commissioner for regional/unitary councils; and mentoring the next generation of environmental practitioners.

### **OVERSEAS PROJECTS CORPORATION OF VICTORIA LIMITED (OPCV)**

#### **ENVIRONMENTAL SERVICES AUSTRALIA (ESA)**

**1996 to 1998**

*Project Director - Environment, OPCV*

*General Manager/Chief Executive, ESA*

Responsible for the directorship of overseas projects in the environment sector for the Overseas Projects Corporation of Victoria Limited (OPCV). The work was carried out via Environmental Services Australia (ESA), a joint venture between the Environment Protection Authority of Victoria and the OPCV. Responsible to a Board of four for the overall management and development of the entity. Provided an overview of the technical implementation of projects, as the Project Director. Participated on formulation missions, etc, and made many business development trips to East, South East, and South Asia.

### **WORLD HEALTH ORGANIZATION**

**1991 to 1995**

*Air Quality Management Specialist, Environmental Health Centre, Kuala Lumpur, Malaysia*

Responsible for the promotion, development and implementation of national and international programmes and projects in the fields of environmental health and air quality management, in the Asia-Pacific region. These included assessments of the air quality in the countries of the region, and the provision of advisory services to governments on request. Carried out many field assignments throughout the region, either personally or through the engagement of consultants. Duties also involved exchanges of data and information, development and promotion of appropriate technologies, and education and training.

#### **DEPARTMENT OF HEALTH, AIR POLLUTION CONTROL**

**1976 to 1991**

*District Air Pollution Control Officer, Auckland (1976-78)*

*Regional Air Pollution Control Officer, Auckland (1978-91)*

Responsible for the administration of the Clean Air Act and air pollution matters in general in the northern region of New Zealand. This region contains almost all of the major industrial sources of air pollution, and the period of work encompassed a time of sustained economic development ("think big"). Particular expertise was acquired in the pulp and paper industry, oil refining processes, iron and steel manufacture, thermal (including geothermal) power generation, and the chemical manufacturing industry. Responsibilities included detailed evaluations of the air pollution significance of major industrial operations, the licensing of such premises, and responsibility for air quality monitoring. The approach to air pollution control allowed for an involvement in land use planning, reviews of air quality management at certain types of industry, studies of the air quality of an area, etc. There was regular overseas travel (to Italy, Canada, USA, etc), to assess the likely impacts of proposed industrial development projects. Also, as a Senior Scientist, it was a period of active involvement in the assessment of scientists in the New Zealand public service.

#### **UNIVERSITY OF KHON KAEN, THAILAND**

**1975 to 1976**

*Lecturer in Chemical Engineering*

Responsible for lecturing final year engineering students in Chemical Engineering Design and Environmental Studies. The notes for the latter course were translated into Thai and published as a book. Another publication was a monograph on Conversion Tables for Engineering Students. Two groups of final year students were supervised for their research projects - one investigated the feasibility of establishing a chemical industry based on rock salt in North East Thailand (since developed on a commercial scale), the other experimented with the use of indigenous materials (shredded coconut fibre burnt rice husks) for water pollution control.

#### **MINISTRY OF WORKS AND DEVELOPMENT**

**1971 to 1975**

*Chemical Engineer, Head Office, Wellington (1971; 1974-75)*

*Site Engineer, Kapuni LPG Project, Wanganui (1972-73)*

As the only Chemical Engineer, much of the work involved various "trouble shooting" projects. Also carried out the in-office design evaluation and the on-site supervision of New Zealand's first LPG plant at Kapuni, investigations into some industrial development projects, and work for the Clean Air Council.

### EXAMPLES OF APPOINTMENTS AS AN INDEPENDENT COMMISSIONER FOR RESOURCE MANAGEMENT ACT CONSENT HEARINGS (for Regional/Unitary Councils)

APPLICANT	COUNCIL	SUBJECT	PERIOD OF INVOLVEMENT
Dominion Oil Limited	Auckland	Waste oil recovery	Apr 1998
Hayes Metals Refineries Limited	Auckland	Metals processing	Dec 1999
Winstone Quarries Limited	Auckland	Three Kings scoria quarry	Feb & Mar 2000
United Environmental Limited	Auckland	Wastes processing facility	Feb & Mar 2001
Contact Energy Limited	Auckland	Otahuhu C gas fired power station	Mar to May 2001
Genesis Energy Limited	Waikato	Huntly eP3 gas fired power station	May to Jul 2001
Fulton Hogan Limited	Waikato	Asphalt manufacture	Jun & Jul 2001
Ballance Fertiliser Limited	Bay of Plenty	Sulphuric acid manufacture	Sep & Oct 2001
Ravensdown Fertiliser Limited	Otago	Integrated phosphatic fertiliser manufacture, etc	May to Aug 2005
Tegel Foods Limited	Auckland	Food processing (chickens)	Aug & Sep 2005
Higgins Contractors Limited	Waikato	Asphalt manufacture	Feb to Apr 2006
Nufarm Limited	Auckland	Agriculture chemicals manufacture	May 2006
Atlas Concrete Limited	Auckland	Concrete batching plant	Nov & Dec 2006
ACI O-I Glass Limited	Auckland	Glass manufacture/ARC policy regarding NES Air Quality	Mar to Aug 2007
Chemwaste Industries Limited	Auckland	Wastes processing	May; Aug to Oct 2007
Holcim Cement Limited	Otago	Integrated cement manufacture, coal mining, mineral quarrying	May 2007 to Feb 2008
Pak 'N Save Limited	Auckland	Contaminated site	Nov 2007 to Jan 2008
Genesis Energy Limited	Auckland	Rodney gas fired power station	Jul to Dec 2008
Waimea Sawmillers Limited – <b>sole Commissioner</b>	Nelson	Wood combustion/NCC policy regarding NES Air Quality	Dec 2008 to Jun 2009
South Pine Limited – <b>sole Commissioner</b>	Nelson	Wood combustion/NCC policy regarding NES Air Quality	Dec 2008 to Jun 2009
Transpacific Technical Services Limited	Auckland	Wastes processing facility	May & Jun 2009

WCC/UWI Carey's Gully Landfill complex	Wellington	Sludge dewatering plant	Aug to Oct 2009
CSR Monier Limited	Auckland	Brick manufacture	Nov & Dec 2009
Atlas Concrete Limited	Auckland	Concrete crushing and screening	Jan to Mar 2010
Huhtamaki New Zealand Limited	Auckland	Food packaging manufacture	Feb & Mar 2010
Masport Limited	Auckland	Metal casting and related activities	Mar & Apr 2010
Sims Pacific Metals Limited	Auckland	Scrap metal processing	Mar & Apr 2010
Sanitarium Health Food Company	Auckland	Cereal manufacture	Apr & May 2010
Pacific Steel Limited	Auckland	Steel manufacture	Apr & May 2010
Ross Roofing/CSR Monier Bricks and Roofing Limited	Auckland	Concrete tiles manufacture and coating	Sep & Oct 2010
CSP Galvanising Limited	Auckland	Metal processing	Nov & Dec 2010
Tasman Insulation Limited	Auckland	Fibreglass manufacture	Nov 2010 to Jan 2011
Alliance Group Ltd, Oamaru – <b>Chair</b>	Otago	Animal rendering and related processes	May to Oct 2011
Stoney Ridge Quarry, Waiheke Island	Auckland	Quarry	Nov & Dec 2011
Industrial Services Limited (Interclean), Wiri	Auckland	Liquid wastes processing	Dec 2012 to Mar 2013
Industrial Services Limited (Interclean), East Tamaki	Auckland	Liquid and solid wastes processing	Apr & May 2013
NCI Packaging, Lower Hutt	Wellington	Steel & aluminium can manufacturing and painting plant	Jun to Aug 2013
Fulton Hogan, Luggate - <b>Chair</b>	Otago	Sewage sludge drying facility	Aug to Oct 2014