

AIRSHED PLANNING PROFESSIONALS (Pty) Ltd

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COMPANY PROFILE

Airshed Planning Professionals is a technical and scientific consultancy providing scientific, engineering and strategic risk assessment and management services and policy support to assist clients in addressing a wide variety of air pollution related risks and air quality management challenges. Airshed personnel also have extensive experience in the provision of formal and informal (on-the-job) skills transfer in the air pollution impact assessment and management planning fields.

The company was formed in 2003 from a merger between Environmental Management Services cc (which started in 1990) and Matrix Environmental Consultants (started in 2000). The company at present has 15 employees, with 13 holding tertiary qualifications.

The personnel at Airshed Planning Professionals have extensive experience in the completion of baseline air quality assessment, emissions inventories and air quality impact assessments for various types of operations including metallurgical, petrochemical, chemical, mining, smelting, refining, energy generation, bulk materials handling (etc.) processes. Airshed also has experience in the development of air quality management plans and capacity building in air pollution control and air quality management. The following services have been and are being provided::

- Emissions inventory - source identification, emission estimation & modelling
- Source & air quality monitoring management and data analysis
- Regulatory analysis and compliance assessments
- Air quality and meteorological monitoring network design
- Meteorological analysis & climatic assessments
- Atmospheric dispersion modelling
- Air quality management system design & implementation
- Ambient air quality baseline assessment
- Air quality impact assessment for EIA, SEA and EMPR purposes
- Health risk assessment
- Buffer zone projection and land-use (town-planning) option evaluation
- Emission abatement and air quality management strategy development
- Air quality management planning
- Air pollution assessment and air quality management skills transfers
- Air quality policy development & implementation support

CVs of the directors who will be mainly involved with the proposed project are attached separately.

Pertinent Project Experience:

Competence Required	Pertinent Experience:
Knowledge of industrial processes and associated emissions, air quality impacts and mitigation and management measures	Emissions inventories, air quality impact assessments and/or air quality management plans developed for a wide range of industrial processes and other source types, including: petrochemical and chemical industries, mining operations (coal, gold, copper, zinc, titanium, etc.), metal recovery (pyrometallurgy and hydrometallurgy; gold, zinc, titanium, platinum, copper, etc.), power generation (gas, coal, HFO, other), landfill facilities , incineration operations, wastewater treatment facilities, manufacturing of herbicides and pesticides, airport companies, (etc.). Specific examples are given in attached client list..
Working relationship with national, provincial and local government	<p>Airshed personnel have good working relationships with local and provincial government personnel tasked with air pollution control in the City of Cape Town, Ethekwini, Joburg, Tshwane, Ekurhuleni, Sedibeng DM, Nelson Mandela municipality, City of uMhlathuze, NW Province and Gauteng. Projects undertaken for such authorities have ranged from baseline air quality characterisation and air quality management planning support (Joburg, Ekurhuleni, City of Cape Town, Tshwane, Northwest Province) to impact assessments for specific activities (e.g. waste disposal operations, CCT) and air quality management skills transfer (Joburg, Ekurhuleni, Metsimaholo).</p> <p>Projects undertaken for national government have included:</p> <p>DEAT</p> <ol style="list-style-type: none"> 1. Regulatory Services Project - via PDG (main contractor) - Development of a National Compliance Monitoring System & Implementation Plan. Airshed provides the air pollution expertise to advise the DEAT Compliance Monitoring Directorate on the development of standard systems for environmental compliance audits and compliance information management. Project initiated in 2005 and completed in September 2007. 2. Development of emission standards for Listed Activities under the Air Quality Act (Feb 2007 to Aug 2008) 3. Member of consortium for APPA permit review project (Dec 2006 to June 2008) <p>DME – Development of Integrated Energy Decision Support Model; Synthesis of Qalabotjha and eMbalenhle studies pertaining to viability of low smoke fuels; Direct source apportionment of particulate pollution within Soweto.</p> <p>-</p>
Software packages	Integrated Energy Decision Support Model (IEDS) for Department of Mineral and Energy Affairs. Statistical and data management database and analytical tool for air pollution parameters for ESKOM (<i>HIPPO</i>)
Skills transfer in the air pollution control and air quality management fields	<p>Skills transfer within the air quality management and air pollution control field is frequently undertaken by Airshed personnel. Courses lectured to date have included:</p> <ul style="list-style-type: none"> o "Physics and Chemistry of Urban Atmospheres", MSc level course presented annually within the Geography and Environmental Department of the University of the Witwatersrand in association with Prof. Harold Annegarn until 2003. o "Air Pollution within the Mining Environment", MSc level course presented within the Mining Engineering Department of Wits University in association with Prof. Rosemary Falcon and Cathy Reichard. o "Air Quality Management and Air Pollution Control in South Africa", 5-day commercial course presented at Wits University's Centre for Continuing Engineering Education (courses run to date: August 2001, April 2002) and at UJ (2006 and 2007) o Air Quality Management B Sc Hons course University of Pretoria (1991-1998 2006, 2007) o Various private courses presented at companies and organisations, e.g.: <ul style="list-style-type: none"> - Open and in-house courses via Potch University Centre for Environmental Management) – Eskom July 2005, City of Johannesburg Health Department 2005, 2006, 2007, Metsimaolo 2006, Ekurhuleni 2005 and 2007 - Lonmin Platinum – March 2005 - Anglo Platinum – 2003, December 2004

	<ul style="list-style-type: none"> - National Nuclear Regulator – October 2004, April 2005 -- IQPC -2004 , 2005, 2006 - MEETI 2004,2005,2006, 2007
Development of air quality and emission limits	<p>SANS - Lucian Burger and Gerrit Kornelius were involved in the development of the proposed South African Air Quality Standards Framework (SANS 69) and the Air Quality Standards for Criteria Pollutants (SANS 1929), in conjunction with the South African Bureau of Standards (now SA National Standards).</p> <p>Gerrit Kornelius is presently involved in a project (jointly with a local firm) to develop ambient air quality standards for a neighbouring country.</p> <p>Emission limits In terms of the AQA (39/2004) are presently being developed for DEAT.</p>
Greenhouse gas emission policy development and reduction strategy	<p>Gerrit Kornelius was involved in drafting a policy statement on greenhouse gas emissions for Sasol Ltd, and in the registration of two Sasol projects for the Clean Development Mechanism (CDM).</p> <p>Gerrit Kornelius and Lucian Burger are technical auditors for South Africa's only local Designated Operational Entity in terms of the CDM</p> <p>Gerrit Kornelius drafted the Non-energy industry section for the national Long-Term Management Strategy drafted for DEAT by UCT.</p>

Client List

Mining and Metal Recovery: Blasting, quarrying, crushing, conveying, tailings dams, smelting, electrowinning

Anglo-Ashanti (SA, Mali), Anglo Coal (SA), Anglo Platinum (SA), Anglo Zinc (Namibia), Lonmin Platinum, Impala Platinum, Xstrata Chromium, Xstrata Coal, BHP Billiton (SA, Mozambique, Zimbabwe, Suriname), Samancor, Kumba, ArcelorMittal South Africa, Rio Tinto (SA, Zimbabwe, Iran), De Beers (SA, Zimbabwe, Botswana) ZCCM (Zambia), Phelps Dodge (DRC), Snowden (Burkina Faso), Highveld Steel and Vanadium Corporation, Exxarro, Southern Mining (Mozambique), Lafarge (SA, Namibia), Holcim, Pretoria Portland Cement, Bluff Mechanical Appliances (Durban Coal Terminal); Portnet (Saldanha), National Ports Authority, Rhovan Xstrata, Tati Nickel (Botswana), TEAL (Zambia), Zimasco, Metalloys

Chemical: Bulk chemical, fertilizer, herbicides, pesticides

AECI, Sasol, Kynoch, Fedmis, Bayer, NCP Chlorchem, Dow AgriSciences, Sanachem, Omnia, Island View Tank Farm, PFG (Glass), Owens Corning, Air Products, Rhone-Poulenc, African Explosives Limited, Karbochem

Petrochemical Industry

Sasol (Sasolburg and Secunda), Total, Engen, Shell and BP, ChevronTexaco, Natref, PetroSA, Sonangol (Angola), Refinery Managers' Environmental Forum

Pulp and Paper, Timber: Pulp and paper production, saw mills, plywood manufacturing

Sappi, Mondi, Global Forest Products, Pulp United

Power Generation: Stack emissions, coal and ash storage

Eskom (Matla, Duvha, Kriel, Tutuka, Majuba, Arnot, Matimba, Hendrina, Kendal, Lethabo, Koeberg), Kelvin, Athlone, NECSA

Waste Disposal: Incineration, landfill, waste water treatment

Enviroserv, City of Cape Town, Ethekwini, Johannesburg, Buffalo City, Nelson Mandela Metro, MICOA (Mozambique)

Transport Emissions: Highways, Filling Stations, Toll Plazas, Railways, Airports

Bakwena Consortium, Gautrans, National Roads Agency, Gautrain, Eskom, Shell, Sasol, ACSA

Regulatory Authorities

DEAT, DME, DWAF, GDACE, City of Cape Town, Ethekwini Municipality, Johannesburg Municipality, Ekurhuleni Municipality, Rustenburg Municipality, Tshwane Municipality, Buffalo City Council, Nelson Mandela Metro, uMhlathuze Municipality, Industrial Development Corp., Coega Development Corp.

Consultancies

SRK, SEF, Golder Associates, ERM, Arcus-Gibb, Ninham Shand, African EPA, Oryx Environmental, Nemia, Mark Wood, Ecoserv, Metago, WSP, JMA & Associates, Rock Environmental Consultancy, Synergistics, SES, CSIR, CCA Environmental, CES, Coex, Enviro Afrik, Bohlweki Environmental, PBA International, Environmental Business Strategies, Lokisa Environmental Consulting, Seaton Thomson, Africon, EIMS, Jones and Wagner, Impacto (Mozambique), Pulles Howard de Lange, Infotex, Babcock, Batemans, Hatch, Foster-Wheeler, Lurgi, Monsanto, Protechnik Laboratories, Ilitha Process Solutions Bently West Management Consultants, Louis Karol Architects, Umhlaba, Interdesign Landscape Architects, EA&MS, Digby Wells, GCS, Felehetsa, Ferret Mining, Epoch Resources

NGO's and Funding Agencies

Directors: L W Burger PhD, MSc Eng (Chem), G Kornelius PrEng PhD (Chem Eng) MBA, H Liebenberg-Enslin MSc

US.AID, DANCED, NILU, LRC, PEER Africa, Durban South Steering Committee, RBCAA, PDG, HINDOC

Directors: L W Burger PhD, MSc Eng (Chem), G Kornelius PrEng PhD (Chem Eng) MBA, H Liebenberg-Enslin MSc