

CHEMICAL MANUFACTURING

Our company

Zephyr Environmental (Zephyr), is a boutique environmental consulting practice specialising in air quality and carbon management. We aim to form enduring and trust-based relationships with our clients to help them solve their most challenging environmental problems.

Our decentralised and agile structure enables us to handle the most complex assignments while remaining small enough to prioritise excellence in delivery while minimising business disruption for our clients. Our value lies in de-risking projects and providing trusted expert advice.

Our core value is 'We are a breath of fresh air, to our clients and our people.' This is more than just a tagline; we strive to ensure that our clients have a significantly different, positive experience when working with us.

A background image of a large industrial chemical manufacturing plant with numerous tall distillation columns, pipes, and storage tanks under a clear sky.

We strive to deliver practical, defensible advice that de-risks operations to ensure good environmental outcomes.

Services we provide:



Meteorological modelling



Air quality monitoring programs



Odour & dust management



Regional airshed management



Environmental & GHG audit / assurance



Air emissions management



Carbon mitigation & management



Data analysis & interpretation



Atmospheric dispersion modelling



Flagship Chemical Manufacturing Projects



Ammonium Nitrate Plant Acid Deposition Impact Assessment, WA

Impact assessment of acid deposition resulting from emissions from a proposed ammonium nitrate plant on the Burrup Peninsula, WA. The study included consideration of atmospheric chemistry within CALPUFF, dry and wet deposition in addition to atmospheric formation of secondary particulate matter.

Emission Estimation of an Ammonium Nitrate Plant, WA

Impact assessment of emissions from a proposed Ammonium Nitrate Emulsion plant near to Port Hedland, WA. Emission estimation was completed using manufacturer guarantees and dispersion modelling completed using CALPUFF.

Cement Manufacturing Plant Impact Assessment, NZ

Impact assessment of emissions from a cement manufacture plant in New Zealand. Local terrain with a bluff adjacent to the stack meant that complex dispersion modelling using the CALPUFF modelling system was required. Local surface and upper air meteorological observations were used with terrain and land use to develop a CALPUFF compatible meteorological file that was able to account for the local geography.



Chemical Emission Inventories

Generation of emissions inventory and completion of dispersion modelling in the assessment of formaldehyde release to atmosphere following the sterilisation of laboratories at two facilities.

If these case studies — or any of the other services we offer — sound like they could add value, please don't hesitate to reach out. Our team is always ready to discuss your goals, answer any questions, and explore how we can best support your success.

Get in touch with our team at: