

CORROSION CONTROL ENGINEERING

Capability Statement



*SPECIALISTS IN THE DESIGN, SUPPLY,
INSTALLATION & MAINTENANCE OF
CATHODIC PROTECTION SYSTEMS
FOR BURIED OR IMMERSED
METALLIC STRUCTURES*



Our Experience Delivers Solutions



WHAT DO WE DO?

CCE ARE INDUSTRY LEADERS IN THE USE OF CATHODIC PROTECTION AND MATERIAL SELECTION TO PROTECT BURIED OR IMMERSSED METALLIC STRUCTURES FROM CORROSION.

We provide corrosion mitigation solutions, services, materials and equipment for these critical assets and more...

- Oil, gas, water and other metallic pipelines
- Steel reinforced concrete
- Mining infrastructure
- Offshore vessels
- Storage tanks / Reservoirs
- Bridges
- Tunnels
- Wharves
- Jetties
- Ports
- Marine
- Shipping
- Fuel Service Stations



Experience at work for you

CORROSION PREVENTION SERVICES FROM AUSTRALASIA'S LEADING CATHODIC PROTECTION & CORROSION ENGINEERING SPECIALIST.

Corrosion Control Engineering (CCE) is Australasia's largest and most experienced corrosion engineering company specialising in all aspects of Cathodic Protection and related fields.

CCE commenced operations in Sydney in 2001. Additional offices were subsequently opened in Melbourne, Brisbane, Townsville & Perth, followed by three offices in New Zealand: New Plymouth, Auckland & Christchurch.

Each Regional Office has a Principal Engineer with between 30 - 40 years' experience in the corrosion prevention industry and we have more NACE certified Cathodic Protection Technicians, Technologists and Specialists than any other company in Australasia.

At CCE, we take great pride in completing our projects to the highest quality, safely, on time and on budget.

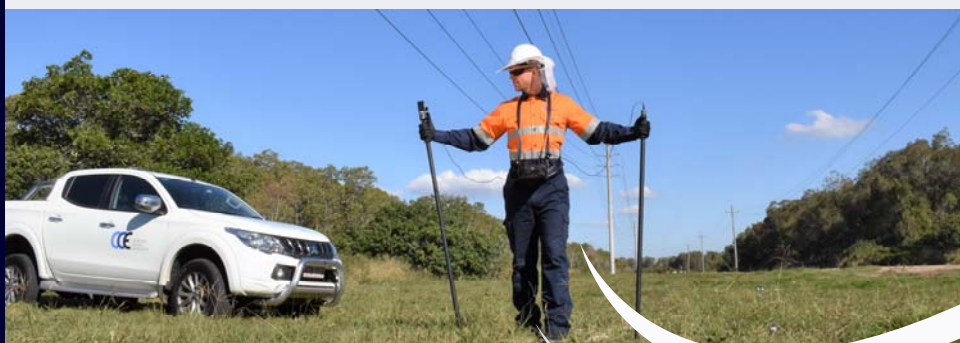
Flexible solutions for your business needs

CCE PROVIDE A CUSTOMISED, TOTAL END-TO-END CORROSION MITIGATION SERVICE.

Our engineers work closely with our customers to provide cost effective, custom-made solutions to industrial corrosion problems. We can supply a wide range of services and products, but our real strength lies in providing our clients with a complete turnkey service that includes Cathodic Protection design, supply of materials, installation, commissioning and ongoing maintenance.



COST EFFECTIVE ENGINEERING SOLUTIONS TO PROTECT YOUR CRITICAL INFRASTRUCTURE FROM CORROSION FOR MANY YEARS TO COME....



Our Experience Delivers Solutions



When you need complete corrosion prevention solutions, from design, engineering and field services to installation and testing of the right cathodic protection systems for your application, you can rely on CCE.

ENGINEERING SERVICES

Cathodic Protection (CP) design, installation, commissioning and maintenance for a variety of onshore, offshore and civil (concrete) based impressed current and sacrificial anode CP systems.

FIELD SERVICES

Corrosion Control Engineering deploy highly experienced, qualified engineers and technicians to perform various field testing activities and onsite surveys for routine maintenance and other special projects.

PRODUCTS, MATERIALS AND TECHNICAL EQUIPMENT

Corrosion Control Engineering stocks and supplies a full range of corrosion control, cathodic protection and pipeline related products, materials and technical equipment.



A WIDE RANGE OF SERVICES....

Experience and services within the company and its associates cover a broad range of corrosion and related areas. These include:

- Cathodic Protection (CP) design, materials selection & supply, installation, commissioning and auditing for a variety of onshore, offshore and steel reinforced concrete CP systems.
- Offshore CP pipeline and structure surveys, retrofit design & installation.
- Independent review / audit of 3rd party CP designs.
- Pipeline CP & coating defect surveys (including DCVG, CIPS, PCM).
- Client representation for offshore pipeline surveys.
- Low Frequency Induction / AC Mitigation surveys and investigations.
- Earthing system investigations.
- Stray current testing / investigation.
- Plant corrosion audits / assessments.
- Corrosion failures and investigations.
- Pipeline Integrity Engineering & Coatings Consultancy.
- Pipeline Pigging—cleaning, gauging and ILL.
- Project management of pipeline pigging, inspection and integrity management contracts.
- Third Party Pipeline Supervision, Surveillance & Patrols.

....FOR A WIDE RANGE OF INDUSTRIAL APPLICATIONS

- Oil, Gas, Water & other Metallic Pipelines
- Above and below ground Gas, Fuel and Water Storage Tanks
- Ports, Wharves, Jetties, Marine & Vessels
- Offshore Structures & Pipelines
- Steel Reinforced Concrete, Bridges & Tunnels
- Mining Infrastructure



Our Experience Delivers Solutions



JASON PATERSON - Group General Manager

Jason has 30 years' worldwide experience in asset integrity, operations and general business management. Projects include the maintenance and rehabilitation of oil, gas, water and sewer pipelines as well as other critical infrastructure assets. Jason is a NACE International and Australasian Corrosion Association (ACA) member who has been directly involved with pipeline integrity and rehabilitation projects throughout Australia, North America, Europe, Asia and the Middle East.

"AT CCE WE USE OUR KNOWLEDGE AND EXPERIENCE TO PROVIDE ASSET OWNERS WITH SOLUTIONS TO PROTECT PEOPLE, INFRASTRUCTURE AND THE ENVIRONMENT FROM THE DESTRUCTIVE EFFECTS OF CORROSION".



MEET SOME OF OUR KEY TEAM MEMBERS:

AUSTRALIA & NEW ZEALAND'S MOST EXPERIENCED CATHODIC PROTECTION , ASSET INTEGRITY AND CORROSION PREVENTION EXPERTS....

JOHN KALIS - Group CEO/CFO

John is a Principal Engineer with a degree in chemical engineering and is also an ACA accredited Corrosion Technologist with over 40 years of experience in cathodic protection and corrosion engineering.



John's role is CEO/CFO for the CCE Group and has been employed by the company since 2003. During this time he has guided the company from a three-person operation to a position where CCE is now the largest specialist corrosion mitigation company in Australasia. John is based in the Sydney office and his previous employment roles were Managing Director of Corpro Australia and Wilson Walton International.

John also provides technical assistance, in a principal engineering capacity, to CCE's regional operations.

PETER KALIS - Regional Director NSW/ACT

Peter is a Metallurgical Engineer with over 20 years of cathodic protection and corrosion engineering experience. He has been involved in, and has managed, all aspects of corrosion science and cathodic protection works including: estimating, design, project management, installation, commissioning, routine testing, reporting, materials selection and failure investigations.

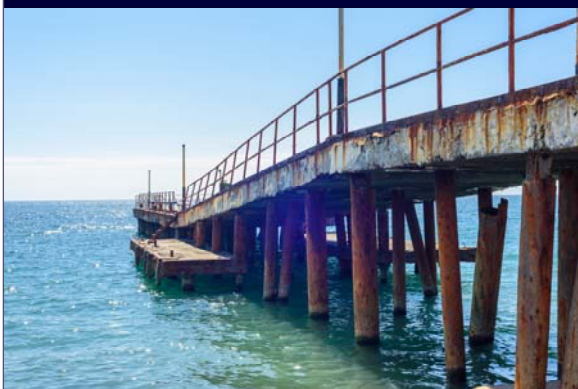


Peter is a member of the Australasian Corrosion Association (ACA) and NACE International. His cathodic protection expertise includes wharves, bridges, shipping, pipelines, water tanks, industrial plants and concrete steel reinforced structures.

Peter is an ACA accredited Corrosion Technician and has been a Director of CCE (NSW) since 2001. Previously, Peter worked with Wilson Walton International and Corpro from 1995-2001.



Our Experience Delivers Solutions





JIM GALANOS - Engineering Manager NSW/ACT

Jim holds a Bachelor of Engineering, Manufacturing Management and has over 20 years of cathodic protection experience. Jim has been involved with all aspects of cathodic protection including design, project management, installation, commissioning, routine testing/troubleshooting and reporting.



Areas of CP expertise include wharves, bridges, shipping, pipelines, above and below ground storage tanks, industrial plants and concrete steel reinforcement. This also includes evaluating and mitigating stray current effects from DC sources.

Jim is an Australasian Corrosion Association (ACA) accredited Corrosion Technologist, has been an active member of the ACA since 1998 and has served as NSW Branch President, Secretary and Councillor. He is an accredited ACA Lecturer in cathodic protection and is an active NSW Branch Committee Member.

Jim holds the highest level of NACE Cathodic Protection Certification: NACE CP-4 (Cathodic Protection Specialist).



JOHN GRAPIGLIA - Regional Director WA

John is a Principal Engineer with almost 40 years of experience in a variety of corrosion control and cathodic protection projects including onshore and offshore pipelines and structures. Work locations include Australia, Hong Kong, Malaysia, Brunei, Indonesia, UK and Pakistan.



John is the Principal Engineer and Director for Corrosion Control Engineering's regional office in Perth, Western Australia. He is an active member and a past President and Chairman of the Australasian Corrosion Association (ACA) and is also a current cathodic protection lecturer for the NACE CP-1 & CP-2 Courses. John holds the highest level of NACE Cathodic Protection Certification, the NACE CP-4 (Cathodic Protection Specialist).

GRAHAME STRONG - Engineering Manager WA

Grahame is a qualified chemist with 27 years' experience specialising in corrosion engineering covering the following:

- Asset Integrity Management including preparation of Corrosion and Integrity Management Plans for offshore and onshore equipment.
- Specifying and reviewing corrosion and chemical monitoring equipment.
- Reviewing corrosion and chemical monitoring data and reporting requirements to meet the needs of engineering codes and Regulators.
- Assessing the fitness for service of equipment damaged by corrosion.
- Independent corrosion inhibitor consultant & subject matter expert for managing microbial influenced, CO₂, H₂S, top of the line, under deposit corrosion, and mothballing equipment.
- Risk Based Inspection – Implementing RBI programs to optimise safety, equipment performance and costs.



Our Experience Delivers Solutions

**DARYL McCORMICK - Principal Engineer
VIC/SA/TAS**

Daryl is a Principal Engineer with a degree in mechanical engineering. He has 40 years' experience in corrosion engineering and the application of cathodic protection to critical infrastructure. Experience includes corrosion mitigation design and remediation solutions for pipelines, storage tanks, electric transmission towers, power plants, offshore platforms, wharves and jetties.



Daryl established the CCE Melbourne office in 2003. He is a Member of the Institution of Engineers Australia, a 32-year member of NACE International and 35-year member of the Australasian Corrosion Association (ACA). Daryl is a NACE Certified Senior Technologist and an ACA Certified Corrosion Technologist.

**STEVEN BRANNIGAN - Engineering Manager
VIC/SA/TAS**

Steve is a NACE certified CP-3 Cathodic Protection Technologist with over 13 years' experience in the corrosion control industry.



He has worked on projects around the world including the Middle East and Northern Africa, Russia, Kazakhstan, Vietnam and the UK in CP operations management, engineering and design, project management and overseas site work.

Steve has vast experience in carrying out analysis of specifications, documents, drawings and site data to then perform the necessary engineering calculations to offer a Cathodic Protection system that will mathematically, environmentally and financially meet the requirements of the client and protect the buried or submerged metallic structures from corrosion. Steve's role also includes the mentoring of field technicians and corrosion engineers.

**WITH APPROXIMATELY 90 STAFF IN EIGHT
OFFICE LOCATIONS AROUND AUSTRALIA AND
NEW ZEALAND, CCE HAS THE RESOURCES AND
EXPERIENCE YOU CAN RELY ON.**



DIMITRI ROSS - Regional Manager VIC/SA/TAS

Dimitri is a Materials Scientist, a NACE CP-3 Cathodic Protection Technologist and a NACE level 2 certified coating inspector with over 10 years' experience in the corrosion control industry. During this time, Dimitri has gained excellent knowledge in all areas of cathodic protection. Dimitri also has expertise in coating inspection, testing, specification, material selection and applicator training.



As Regional Manager for CCE's VIC/SA/TAS operations, Dimitri primarily specialises in regulatory compliance, the application and monitoring of cathodic protection systems for land and sea based assets, coating condition assessments and general asset integrity.

Dimitri is a NACE and ACA member who has presented papers and chaired technical events at industry conferences and can provide consultation and education sessions to clients on corrosion control matters.



RYAN McKAY - Regional Manager QLD/NT/PNG



Ryan is a Materials Engineer with 13 years' experience in corrosion engineering. As a Canadian citizen with a strong North American pipeline background, Ryan has a special interest in Stress Corrosion Cracking (SCC). He also holds the highest level of NACE Cathodic Protection

Certification: NACE CP-4 (Cathodic Protection Specialist).

DEAN PARKER - Engineering Manager QLD/NT/PNG



Dean holds a Bachelor of Applied Science (Materials) and is a Principal Corrosion Engineer with 30 years' experience in corrosion investigations and mitigation with significant project implementation and management experience.

Much of this time has been spent designing, commissioning, and maintaining cathodic protection systems from large oil and gas projects to small infill pipeline projects for the mining, utilities, water and oil and gas industries.

Additionally, Dean has extensive experience in shipping, marine structures (onshore and offshore), pipelines, tank farms, and other industrial plants.

Dean holds the ACA Advanced Cathodic Protection certificate and has been an ACA Accredited Corrosion Technologist since 1993.



JIM STEELE - Principal Engineer QLD/NT/PNG



Jim is a Principal Engineer with a degree in chemical engineering and has over 40 years of experience in corrosion engineering and cathodic protection, having undertaken works in multiple industries.

He has applied his experience to shipping, marine structures, pipelines, oilfields, tank farms and other industrial plants including concrete structures.

Jim undertakes all facets of corrosion engineering including design, installation and commissioning. He also has specialist knowledge of Microbial Induced Corrosion (MIC), earthing, lightning protection and AC interference effects.

BRISBANE, QLD



PRODUCTS, MATERIALS & EQUIPMENT SALES

As part of our total corrosion control service offering, CCE supplies a wide range of CP and pipeline related products, materials and technical equipment including:

- Anodes, Backfill, Test Points, Cabling etc.
- FIK's, MIJ's, Barrel Unions, Surge Diverters etc.
- Reference Electrodes, Corrosion Probes & Inhibitors etc.
- Pipeline pigging equipment, pipeline spacers etc.
- DCVG/CIPS Equipment, Pipeline Locators .
- Transformer Rectifier (TR) Units.
- CP Remote Monitoring.
- Corrosion & CP Remote Monitoring.

For more information on our products, materials and equipment sales, visit our website www.cceng.com.au or email: contact@cceng.com.au

Our Experience Delivers Solutions



Our mission...

Is to provide our customers with quality engineering solutions to ensure the safety, reliability and longevity of their assets.

As Australasia's leading corrosion prevention specialist, we are committed to the ongoing training and development of our staff to ensure the highest level of service is delivered.



ALAN O'CONNOR - New Zealand Manager & Senior Corrosion Engineer, New Plymouth, New Zealand

Alan has a Bachelor of Engineering (Mechanical) from University College, Dublin and has 13 years' experience in Cathodic Protection.



Alan first joined CCE in 2006 and following a five year spell as a Corrosion Engineer for Australia's largest gas transmission pipeline operator, he has re-joined CCE as New Zealand Manager, based in our New Plymouth office.

In addition to Alan's vast amount of pipeline experience, he has applied his CP expertise to many structures including oil & gas processing plants, wharves, jetties, steel reinforced concrete and offshore structures in the marine environment.

GRAHAM MACKINNON - Principal Engineer, New Plymouth, New Zealand

Graham is a Metallurgical Engineer who has over 40 years of experience in materials and corrosion engineering including the design, installation and monitoring of cathodic protection systems for buried pipelines, tanks, mounded pressure vessels and marine structures. Graham has extensive experience in cathodic protection system fault location and diagnostic testing of oil and gas pipelines. Previous experience includes inspection engineering at refineries of major oil companies in New Zealand, Africa, Australia and the Middle East.



Graham is a NACE International and Australasian Corrosion Association (ACA) member and a member of the New Zealand Institute of Gas Engineers.

NEW PLYMOUTH, NEW ZEALAND



Our Experience Delivers Solutions



ENGINEERING AID AUSTRALIA



EngineeringAid Australia
Building futures

As a specialist corrosion engineering company that regularly works within remote Indigenous communities of Australia, Corrosion Control Engineering has partnered with Engineering Aid Australia - a not for profit organisation that inspires and supports Indigenous high school students to become engineers.

We are proud to encourage and celebrate Indigenous success. Working together with Engineering Aid Australia, we are helping to create employment opportunities for the Indigenous engineers of the future.



ALAN BRYSON - Principal Corrosion & Integrity Specialist

Alan is a corrosion, cathodic protection, coatings and pipeline integrity specialist with over 40 years' experience in the oil and gas industry.



Alan is an industry advisor to the APGA Research & Standards Committee and has excellent knowledge and expertise in the following areas:

- Cathodic protection, particularly for pipelines.
- Pipeline coatings for both below and above ground service.
- Pipeline integrity management including pipeline anomaly assessment, specification & review of inline inspection programs.
- Pipeline regulatory requirements including Pipeline Integrity Management Plans & Remaining Life Reviews.
- DC stray current mitigation & electrolysis.
- Electrical hazard assessments for pipelines.
- Cathodic protection regulations and industry standards.
- CP remote monitoring & data logging.



EDGAR MENDEZ - Group Consultant, Corrosion & Materials

Edgar holds a Bachelor of Engineering (Materials) from the University of NSW and has been working in the inspection/testing industry for 16 years, most of which has been in metallurgy. Edgar's corrosion expertise includes condition assessment, failure investigations, visual and microstructural examination, standards review and a wide range of onsite and laboratory testing and reporting.



Our Experience Delivers Solutions

Products, Materials & Technical Equipment

Corrosion Control Engineering (CCE) is Australasia's leading supplier of an extensive range of CP and pipeline related products, materials and technical equipment.



All of our offices have access to CCE's products and equipment sales specialists who have many years' experience in our industry. Our regional warehouses stock a full inventory of Cathodic Protection and pipeline related products, materials and technical equipment.

CCE's regional office locations throughout Australia and New Zealand mean reduced shipping costs for products and materials supplied to our customers. Our local presence means we have the ability to expedite the dispatch of materials all over Australasia at short notice, whenever required.

Products & Materials

Anodes & Backfill: CCE offers a large range of anode types and sizes for use in all industries that require protection of equipment and infrastructure from corrosion. Materials include Aluminium, Magnesium, Zinc, Silicon iron, Mixed Metal Oxide, Platinised Titanium, Lead Silver, and Graphite, either standard or specially designed to suit your needs. We also supply Low Resistivity anode backfill materials for anodes and earthing systems. CCE are approved suppliers of Loresco products.

Zinc & Magnesium Ribbon Anodes: Zinc ribbon anodes can provide a cost effective, maintenance free method of corrosion control for buried or immersed metals such as iron, steel, aluminium, copper, etc. Extruded magnesium anode ribbon is a flexible anode material generally used in high resistivity water or soil.

Transformer Rectifier Units (TRU's): Standard or customised, oil cooled, solar and remote monitoring for impressed current CP systems.

CP Test Points, Stands, Cabling & Thermit Weld Materials: CCE supplies a variety of CP test point boxes, associated cabling and exothermic welding materials to suit your needs. Test points can be configured to suit the individual and/or project requirements, and can be supplied to suit the environment. Test points are available in Aluminium, Plastic and Stainless Steel.

Flange Insulation Kits (FIK's): Flange Insulation Kits are available for all flange sizes, types, pressure ratings and materials. CCE has distributor rights with a number of manufacturers, giving access to a broad range of gaskets, sleeves and washers. FIK's have proven to be one of the most effective and reliable products for controlling and maintaining the integrity of piping and tank systems under demanding conditions.

Monolithic Insulating Joints (MIJ's): Monolithic Insulating Joints are used for the sectioning of main pipelines in the Oil, Gas and Water industries to ensure full efficiency of cathodic protection systems against corrosion. CCE supplies MIJ's manufactured by Zunt Italiana, who have been designing and manufacturing MIJ's for over 20 years. The insulating Joints are designed, manufactured and tested in full compliance with the most stringent international Standards and Client specifications. Fittings are available in flanged, weld/weld and screwed ends.

Surge Protection & Decouplers: CCE supplies a range of surge diverters and solid state decouplers to provide continuous and transient AC high voltage/current conduction to earth whilst maintaining DC isolation of cathodic protection systems to specified levels. These are designed to protect personnel and equipment from electrical disturbances. CCE are approved suppliers of Dairyland Electrical Industries products.

Products & Materials (continued)

Reference Cells/Electrodes: CCE supplies reference electrodes to suit all applications. There are many portable and permanent types available including: Copper/copper sulphate, silver/silver chloride, zinc and special purpose for immersion, burial, or concrete applications. CCE is the Australian distributor for M.C. Miller and Borin, both recognised leaders in the corrosion control industry, offering Reference Electrodes/Half-Cells and other miscellaneous products.

Pipeline Pigging Equipment: CCE offers a full range of pipeline cleaning and gauging pigs manufactured by the world's leading suppliers.

Corrosion & Erosion Monitoring Equipment: CCE works exclusively with Cosasco to provide corrosion monitoring solutions to the industry. Corrosion Probes, Corrosion Coupons, Wireless Corrosion Monitoring, Erosion Monitoring, Retrieval Tools and many more solutions are available.

Pipeline Casing Spacers: Casing insulators are used to support and electrically insulate a pipeline from a casing pipe. Spacers are available in different varieties and pipe diameters.

Other Associated Products:

CCE regional offices stock a wide range of associated equipment and materials. Our worldwide manufacturing and supply capabilities also include:

- Barrel Unions
- Pipeline repair sleeves
- Speciality cables and heat shrink materials.
- Radolid Caps. Manufactured to suit most nut and bolt combinations, these caps are used in a vast number of industries to protect bolted connections against corrosion.
- Ship impressed current CP systems.
- Electronic descaling systems for ships ballast tanks. Sacrificial zinc and aluminium hull and tank anodes.
- Marine Growth Prevention system (MGPS) - Electrolytic anti-fouling systems.
- Corrosion inhibition for all applications, including vapour phase.
- hermit welding moulds and weld material
- Linkseals, warning tape, Flowstop bags etc.

Technical Equipment

Corrosion Control Engineering supply a wide range of cathodic protection and pipeline related technical equipment. Our worldwide manufacturing and supply capabilities include:

- DCVG Pipeline Coating Defect Survey Equipment.
- CIPS - Close Interval Potential Survey Equipment. For close spaced cathodic protection potential surveys on pipelines. Manufactured by MC Miller and distributed by CCE.
- Transformer Rectifiers.
- Data Loggers & GPS Current Interrupters.
- Remote CP Monitoring. CCE supplies a range of Remote Test Point and Rectifier Monitoring systems.
- DC Current Clamp (Swain) Meter.
- Soil Resistivity Testing Equipment. To enable the user to perform the Wenner Four-Pin and Soil Methods.
- Pipeline Locators. CCE supplies the Vivax Metrotech range of locators and current mappers.



CORROSION CONSULTING & ENGINEERING. CATHODIC PROTECTION PRODUCTS & MATERIALS.

With eight offices located around Australia and New Zealand, CCE are well positioned to assist you with your corrosion prevention and cathodic protection needs.

For more information visit our website or contact your nearest office.

AFFILIATIONS

CCE are proud to be Diamond members of The Australasian Corrosion Association (ACA) and Corporate members of the Australian Pipelines & Gas Association (APGA).



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