

CCE Materials & Corrosion Division – Mission Statement

What do we do? – We help our customers understand their materials and corrosion problems.

How do we do it? – Through communication and openness. We talk to and understand our client's issues with a relaxed and no-fuss approach.

What will we do? – We will immerse ourselves into the problem. Using our industry experience and expertise we will conduct the necessary testing to provide the client with a comprehensive report.

Who does it? - Edgar Mendez, CCE's Group Consultant - Materials & Corrosion will be the primary point of contact. He is one of the many number of Metallurgical and Materials Engineers at CCE.

What will we give to the client? – A report that provides a sound understanding of the situation, in both simple and technical terms, with cost effective solutions and recommendations.

CCE's Materials & Corrosion division is a boutique consulting provider of choice. With reliable analysis and results delivered in a timely fashion, we are able to help our customers with any materials and corrosion related queries they may have.

In conjunction with CCE's leading cathodic protection services and solutions, our Materials & Corrosion division expands on our vast experience to provide failure analyses when something does go wrong.

CCE's Australasian footprint covers all of Australia, New Zealand and the Pacific Islands, so we are able to service our customers in the remotest of places.

With each regional office consisting of a versatile team of experienced engineers and field technicians, CCE aims to provide a professional service to assist in understanding our customers' problems and provide recommendations based on the outcomes of our analyses and investigations.

Our investigations typically involve, but are not limited to:

- Thorough visual examinations
- Chemical analysis and alloy determination
- Scanning Electron Microscopy (SEM)
- Energy Dispersive Analysis of X-rays (EDAX)
- Technical literature review on relevant materials and corrosion issues
- Microstructural examination and analysis as required
- Mechanical testing (e.g. hardness testing, tensile testing etc.) as required

CCE's Materials & Corrosion division is not only limited to corrosion related issues. We have experience in other facets of industry which helps us to provide failure analysis services for:

- Load / overload related failures
- Mechanical drive trains
- Component/part failures
- Legal / Litigation type work

Other services that CCE's Materials & Corrosion division can also provide include:

- Onsite visual inspection and engineering assessment for new and existing assets
- Australian and International standards consultation and interpretation
- Materials consultation
- Failure Analysis and Investigation



**LEARN MORE
ABOUT CCE'S
MATERIALS &
CORROSION
SPECIALIST OVER
THE PAGE.....**

Edgar Mendez

CCE Group Consultant - Materials & Corrosion



Edgar holds a Bachelor of Engineering (Materials) from the University of NSW and has been working in the inspection/testing industry for 13 years, most of which has been in metallurgy. During this time he worked for ALS Industrial / PearlStreet / Metlabs / AMEC (the same entity through various name and ownership changes).

Experience includes:



Failure investigations – including corrosion issues, fractured/over load issues, heat treatment and material issues; for products including pipelines, shafts, drive trains, bolts, loading equipment etc. This also covers a wide range of materials including, stainless steels, copper, tool steels, alloy steels etc.



Visual examinations – for samples brought into the office as well as visual examinations out on site; including fractured shafts, pressure vessels, corroded structures, internal examination of safety fire system pipes and screws/components exposed to hydrogen embrittlement.



Microstructural examination – including decarburization measurements, identification of potential failure locations due to manufacturing defects and compliance of thermal barrier coatings against client specifications.



Standards review – interpretation of various standards and comparison against Australian standards for compliance.



Various onsite testing – ferrite content testing, XRF positive material identification testing, portable hardness testing and coating thickness measurements. Onsite sample removal for chemical analysis and alloy identification.

As CCE's Group Consultant in this specialist field, Edgar's role covers materials & corrosion failure work throughout the Australasia region.

For further information about CCE's Materials & Corrosion Division, please contact Edgar directly:



**Corrosion Control
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ABOUT CCE...

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

CCE commenced operation in 2001 and now has 7 offices: Sydney, Melbourne, Brisbane, Townsville, Perth and Auckland, New Plymouth, New Zealand.

The offices are managed by Principal Engineers, each of whom have between 30-40 years' experience in the corrosion control industry.

The CCE team consists of experienced and highly qualified professional engineers and technicians who have specialised in the field of corrosion mitigation and Cathodic Protection for many years, and who are certified with the Australasian Corrosion Association (ACA) and NACE International.

www.cceng.com.au www.cceng.co.nz

