

# **Certification Guide**

# Australasian Corrosion Association Inc.

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## Introduction

The Australasian Corrosion Association (ACA) is the leading body for the handling and mitigation of corrosion and its impacts across Australia and New Zealand. An internationally recognised association with accredited training courses, annual conferences, and networking opportunities, the ACA provides support across diverse sectors to provide the best knowledge and experience across the corrosion industry.

The corrosion industry encompasses a broad array of roles, expertise, and sectors. Corrosion practitioners often enter the corrosion field through various career paths from vocational to professional thus representing a diverse variety of backgrounds and qualifications levels. Regardless of the career pathway into the field of corrosion practice, it is expected that all certified corrosion practitioners are competent to practice independently.

To assure professionalism in practice, the ACA has established a certification scheme to assess the knowledge and experience of practitioners.

The community and industry have certain expectations of corrosion practitioners which extends to their competency, how they apply their competency, and how they conduct themselves professionally. Certification upholds these expectations and protects the community and industry by ensuring a high standard of practice. It is on this basis that the ACA certification scheme is based on competency.

This guide is for persons seeking certification as a Corrosion Technician or Corrosion Technologist.

## **Certification Requirements**

To be recognised as a certified corrosion practitioner, a person needs to demonstrate an underpinning knowledge of corrosion and competency to practice independently based on practical experience.

There are two categories of corrosion practitioner:

- Corrosion Technician a person who has gained underpinning knowledge of corrosion, has at least three years relevant work experience and can demonstrate the 5 competencies as outlined in Table 1.
- Corrosion Technologist a person who has gained underpinning knowledge of corrosion, has at least five years relevant work experience and can demonstrate the 12 competencies as outlined in Table 1.

### Knowledge

There is a base level of underpinning corrosion knowledge that is required and applies to both categories. An applicant will need to provide evidence of how they have gained underpinning knowledge of corrosion. This knowledge is most easily obtained from completing a relevant course on corrosion such as *ACA Coating Selection and Specification* or *AMPP Cathodic Protection Level 1 Tester* by way of example. Corrosion knowledge may also have been gained through completion of a formal qualification.

You will be required to provide evidence of how you gained your corrosion knowledge. This may be by providing certificates of completed courses or transcripts of formal study showing relevant subjects that address corrosion. These are just two examples and there may be others.



## Competency

Competency is the ability to perform activities to standards expected and recognised by industry, employers, and the community.

There are a total of twelve competencies. The number of competencies that need to be demonstrated differ between Technician and Technologist. Table 1 shows the competencies that are required to be demonstrated for each of the certification levels.

Table 1 – Competency	Demonstration
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Element of competence	Technician	Technologist
Ethical management	~	$\checkmark$
Currency of corrosion knowledge	~	√
Sustainability proficiency	~	√
Risk management	~	~
Performance		✓
Taking action		$\checkmark$
Responsibility for corrosion activities for your work and team		$\checkmark$
Personal development in area of corrosion	~	$\checkmark$
Communication and stakeholder engagement		$\checkmark$
Development of creativity and innovation		$\checkmark$
Problem analysis		$\checkmark$
Judgement		~

The competencies and what they mean are outlined in Appendix 1.

# **Making an Application**

## General

You can be assessed for certification regardless of whether you are an ACA member or not.

Preparing and submitting an application for certification allows competency as a specialist corrosion practitioner to be assessed. You will need to supply your personal details and to upload supporting documentation.

You will need to apply for certification as a Corrosion Technician or Corrosion Technologist.



Summary of process:

- Make an application
- Sit an interview
- Receive an outcome

## **Application submission**

Application for certification is made via email.

- Send an email to <u>certification@corrosion.com.au</u>
- In the title block put the certification level you are applying for together with your name. eg Corrosion Technician – Rusty Nail
- Attach required supporting documentation\* which is:
  - Self assessment
  - Current CV
  - Evidence of corrosion knowledge
  - You will be issued with invoice
- Once payment has been received an interview will be arranged

\*Supporting files to be uploaded should preferably be in PDF format.

#### Interview

An interview will be arranged with two of your peers. Interviewers will be drawn from an interview panel and will be best aligned to your area of corrosion practice. There will also be a facilitator who will ensure the interview is fair and reasonable.

At the start of the interview you will be asked to provide photo ID. Acceptable photo ID is:

- An Australian driver's licence or
- A passport

The interview will explore your career and experience to ascertain whether you demonstrate the required competency for the level of certification you have applied for.

You will be notified of your outcome via email.

### **Postnominals**

Upon a successful outcome, you will be issued with a certificate in the relevant category. You will be entitled to use postnominals according to your category.

- Certified Corrosion Technician
  CCTn
- Certified Corrosion Technologist
  CCTt



## Appeal of Decision

If you believe your assessment outcome is not appropriate, then you may request that your application be reassessed. The request for an appeal will incur a relevant fee which can be found on the ACA website.

The fee will be refunded if the outcome is in your favour, but not if the original decision is upheld.

Your request for appeal should set out the basis on which you believe the outcome is inappropriate and addressed in writing to:

The CEO Australasian Corrosion Association 30A Jessie Street Preston Victoria 3072 Australia

## Fees

Fees associated with the certification application can be found on the ACA website.

There is a different fee for members and non-members.

## **CPD – Continuing Professional Development**

To maintain certification, you will be required to maintain CPD (continuing professional development).

Maintaining CPD is important to ensure currency of practice and that you are keeping up to date with current industry practice and emerging technologies.

The general requirement for CPD is 150 hours rolling average across a three year period. Certified practitioners will undergo audits of their CPD. If CPD requirements are found not to meet the required criteria, certification may be revoked.

Full details on CPD requirements can be found on the ACA web site.

## **Version Control**

Version	Change details	Reviewed by	Date reviewed	Approved by	Approval date
1.0	Establishment			Board	31 July 2024





# **Appendix A – Competency Standards**

Domain of competence	Element of competence	What this competence means in practice
Professional behaviour	Ethical management	Anticipate and manage the consequences of intentional action or inaction of you and your team; and
		Assess ethical issues when they arise and respond appropriately; and
		Plan ethically to influence perceptions and expectations of stakeholders and negotiate acceptable outcomes in the best interest of relevant communities
Professional knowledge	Currency of corrosion knowledge	Appreciate and apply the latest theory and techniques to corrosion activities
Professional practice	Sustainability proficiency	Identify the economic, social and environmental impacts of corrosion activities; and
		Anticipate and manage the short and long-term effects of corrosion activities
	Risk management	Operate within a hazard and risk framework that is specific to the risks associated with the corrosion activities envisaged; and
		Document the risks and hazards associated with proposed corrosion activities and record the assessment methodology and precautions chosen to eliminate hazards or control risks; and
		Manage for the safety of workers and others in accordance with prevailing legislation, codes of practice
	Performance	Execute a standard and duty of care when approaching, arranging and undertaking a new task to ensure delivery of the final agreed outcome, improving the likelihood of a satisfactory outcome for all concerned through consultation before the main corrosion activities start



	Taking action	Initiate, plan, lead or manage corrosion activities; and
		Apply appropriate formal management systems and organisational processes
	Responsibility for corrosion activities for your work and team	Execute personal responsibility for the decisions you make regarding the work that you do, lead or share
Professional attributes	Personal development in area of corrosion	Assess, acquire and apply the competencies and resources appropriate to corrosion activities; and
		Use peer review or other input to describe your area(s) of competence
	Communication and stakeholder engagement	Demonstrate effective communication with diverse stakeholders through use of differing communication techniques whilst taking into account the knowledge, expectations, requirements, interests, terminology and language of the intended audience
	Development of creativity and innovation	Develop creative and innovative corrosion solutions to identified client needs
	Problem analysis	Analyse corrosion problems and opportunities, and record the analytical methodology, the possible solutions, how the problem was resolved and why a particular solution was selected
	Judgement	Use sound judgement to make and record critical decisions through a balanced use of:
		Analytical and deductive processes based on experience, a full understanding of client needs and corrosion functionality, making appropriate use of available data; and
		Pattern recognition that comes from experience, acknowledging intricacy, reconciling alternatives suggested by competing requirements and identifying variances from what is experienced



## **Appendix B – Certified Technician Self Assessment Example**

#### Element 1 – Ethical management

This **means** you anticipate and manage the consequences of intentional action or inaction of you and your team; and **means** you assess ethical issues when they arise and respond appropriately; and **means** you plan ethically to influence perceptions and expectations of stakeholders and negotiate acceptable outcomes in the best interest of relevant communities

#### Example

When I was working on a project away from home carrying out installation works, the client site team were keen to deliver the site works as quickly as possible and encouraged our team to start each day earlier than usual so the job could be completed over fewer days. However, this meant that we might not have the correct environmental conditions (temperatures, dew point readings) at the start of each working day which could then impact the quality and durability of the installation.

I raised this with my line manager who then raised it with the project management team. Discussions between the project management team led the client to direct us to use an alternate coating system that could accommodate the conditions we were likely to encounter over the extended working hours.

#### Element 2 – Currency of corrosion knowledge

This means you appreciate and apply the latest theory and techniques to corrosion activities

#### Example

I work with coatings. To make sure I'm up to date in the latest coatings and application equipment I attend training sessions run by product manufacturers and trade events like the ACA Applicators Day.

#### Element 3 – Sustainability

This **means** you identify the economic, social and environmental impacts of corrosion activities; and **means** you anticipate and manage the short and long-term effects of corrosion activities

#### Example

The client wanted a solution for corrosion in a concrete structure and the sole objective discussed within the project brief was a quick return to service of the asset. The asset was in a coastal environment and there were much better solutions that would extend the life of the asset. To support sustainability, I discussed with the client the use of a high-performance, corrosion-resistant coating system for the asset which would provide enhanced protection against harsh environmental conditions and therefore significantly extend the maintenance-free period and life of the asset.

#### Element 4 – Risk management

This **means** you operate within a hazard and risk framework that is specific to the risks associated with the corrosion activities envisaged; and **means** you document the risks and hazards associated with proposed corrosion activities and record the assessment methodology and precautions chosen to eliminate hazards or control risks; and **means** you manage for the safety of workers and others in accordance with prevailing legislation, codes of practice

#### Example

During a routine inspection, I noticed what appeared to be significant wear on a piece of machinery used for chemical transfer near where our site crew was about to commence works. I raised my concerns immediately using the internal reporting system and notified the client supervisor. Based on the inspection that followed, it was decided to temporarily halt the use of the pressurised machinery whilst we were working in close proximity.



In a subsequent safety meeting, we discussed the incident, highlighting the importance of regular inspections and proactive maintenance.

By actively participating in these activities, I contributed to OHS management.

#### Element 8 – Personal development in area of corrosion

This **means** you assess, acquire and apply the competencies and resources appropriate to corrosion activities; and **means** you use peer review or other input to describe your area(s) of competence

#### Example

To actively participate in personal development, I have set specific career goals focused on advancing my expertise and leadership in the corrosion industry. For instance, my goal for the next three years is to achieve certification in Cathodic Protection to a CP2 level as a minimum. This certification will not only enhance my technical knowledge but also position me for higher responsibility roles with an aim to take on project management roles, leading larger and more complex corrosion mitigation projects, which will contribute to the overall success of my company and the industry.



## Appendix C – Certified Technologist Self Assessment Example

#### Element 1 – Ethical management

This **means** you anticipate and manage the consequences of intentional action or inaction of you and your team; and **means** you assess ethical issues when they arise and respond appropriately; and **means** you plan ethically to influence perceptions and expectations of stakeholders and negotiate acceptable outcomes in the best interest of relevant communities

#### Example

I encountered an ethical dilemma involving a project where we discovered that a new type of coating material, which our client had recently adopted in their specifications, was not performing as expected under certain environmental conditions. This raised serious concerns about the potential for premature failure of critical infrastructure components, which could lead to safety hazards and substantial financial losses.

The dilemma arose when the client, keen to maintain the project timeline, suggested downplaying the findings and proceeding with the implementation as planned. I found this suggestion troubling.

I compiled comprehensive data and analysis to support the findings, demonstrating the coating material's shortcomings in a report proposing further testing and analysis. I sought the advice of my peers and mentors within the industry, discussing the ethical implications and potential consequences of proceeding with the current material or halting the project to find a better solution. Instead of merely highlighting the problem with my team, I proposed a solution that involved conducting a thorough review of alternative coating materials that had proven performance records. I also suggested a phased approach to replace the current coating material, minimizing project delays and additional costs. Despite initial resistance from the team, I stood firm, reinforcing the importance of integrity and safety in our work. I reminded the team that our professional responsibility extended beyond immediate financial gains to ensuring the reliability and safety of the infrastructure we were responsible for protecting.

After several rounds of discussions, senior management agreed to conduct an expedited review of alternative coating materials. The project was temporarily paused to allow for this review, and a more reliable coating material was identified and tested. Although this resulted in a slight delay and additional costs, the decision ultimately proved to be the right one.

#### Element 2 – Currency of corrosion knowledge

This means you appreciate and apply the latest theory and techniques to corrosion activities

#### Example

I work primarily within cathodic protection, and I keep abreast of developments via reviewing scholarly articles, seek regular updates from industry system suppliers and attending seminars and exhibitions and conferences such as Corrosion & Prevention.

#### Element 3 – Sustainability

This **means** you identify the economic, social and environmental impacts of corrosion activities; and **means** you anticipate and manage the short and long-term effects of corrosion activities

#### Example

I managed a project aimed at extending the lifespan of an aging pipeline network. The primary goal was to carryout essential maintenance after a long period of lack of investment in the pipeline.



#### Strategies Implemented:

- We installed advanced cathodic protection systems to mitigate corrosion. These systems were designed to be energy-efficient, utilizing solar power where feasible, thereby reducing the reliance on non-renewable energy sources.
- I introduced a robust monitoring system that used data logger / sensors and data analytics to continuously monitor the condition of the pipeline. This allowed for predictive maintenance, reducing the need for emergency repairs and preventing potential environmental hazards from leaks or failures.
- I organised training sessions for the maintenance team on sustainable practices and the importance of corrosion management in protecting the environment. This ensured that the sustainability principles were understood and implemented at all levels of the operation.

#### Results:

- The use of advanced materials and cathodic protection significantly extended the pipeline's operational life, reducing the need for replacements and minimising material waste.
- By adopting sustainable practices, we achieved a considerable reduction in the pipeline's carbon footprint. The use of solar-powered systems and environmentally friendly coatings contributed to this reduction.
- The predictive maintenance approach led to a 20% reduction in maintenance costs over three years. The initial investment in advanced materials and systems paid off through reduced downtime and lower maintenance expenses.
- The continuous monitoring system improved the overall safety of the pipeline by allowing for early detection of potential issues, thereby preventing leaks and environmental contamination.

This project demonstrated that integrating sustainability principles in corrosion management is not only beneficial for the environment but also enhances the efficiency and cost-effectiveness of operations. By focusing on sustainable practices, I was able to achieve long-term benefits and set a benchmark for future projects.

#### Element 4 – Risk management

This **means** you operate within a hazard and risk framework that is specific to the risks associated with the corrosion activities envisaged; and **means** you document the risks and hazards associated with proposed corrosion activities and record the assessment methodology and precautions chosen to eliminate hazards or control risks; and **means** you manage for the safety of workers and others in accordance with prevailing legislation, codes of practice

#### Example

I managed a project where corrosion posed a significant risk to both safety and operational efficiency.

During initial assessments, I identified several risks including severe metal corrosion due to saltwater exposure, potential equipment failure, and safety hazards for personnel.

I used a risk matrix to prioritize these risks. Metal corrosion was deemed a high-priority risk due to its potential to cause catastrophic failure, environmental damage and injure workers.

Critical sections and components were identified where corrosion was to such an extent that replacement was appropriate. This was the first focus due to the risk it posed to the safety of workers.

Other risks were then progressively worked through such as specifying advanced anti-corrosion coatings to vulnerable areas and designing impressed current cathodic protection (ICCP) systems to control corrosion.

Element 5 – Performance



This **means** you execute a standard and duty of care when approaching, arranging and undertaking a new task to ensure delivery of the final agreed outcome, improving the likelihood of a satisfactory outcome for all concerned through consultation before the main corrosion activities start

#### Example

In one of my recent projects, I was tasked with improving the efficiency of the corrosion management program for a large asset complex. The site had been experiencing significant issues with pipeline failures and increased maintenance costs due to inadequate corrosion control measures. My objective was to reduce the incidence of pipeline failures by 25% within a year and to decrease maintenance costs by 15%.

I began by conducting a thorough assessment of the existing corrosion management processes. This involved analysing past failure reports, reviewing maintenance records, and meeting with key stakeholders to understand the root causes of the problems. I used historical data and failure analysis techniques to identify patterns and areas for improvement. By engaging with maintenance teams, engineers, and plant managers, I gained insights into operational challenges and resistance to change.

I developed a comprehensive strategy to address the identified issues. This plan included implementing a new corrosion monitoring system, enhancing inspection techniques, and introducing preventive maintenance measures. Developing a detailed, data-driven strategy ensured that all actions were aligned with the performance targets.

#### Element 6 – Taking action

This **means** you initiate, plan, lead or manage corrosion activities; and **means** you apply appropriate formal management systems and organisational processes

#### Example

I was tasked with enhancing the corrosion management system for a large-scale industrial facility. The existing system was outdated and lacked integration with modern best practices, which led to inefficiencies in corrosion monitoring, reporting, and maintenance.

I initiated the project by conducting a comprehensive assessment of the current management system and organizational processes. This involved reviewing existing procedures, interviewing staff, and analysing performance metrics.

I performed a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to identify gaps in the current system and areas for improvement. I then mapped out current processes using flowcharts to visualize workflows and pinpoint inefficiencies.

Based on the assessment results, I designed a new corrosion management framework that integrated advanced technologies and best practices. The framework focused on improving data accuracy, streamlining reporting processes, and enhancing preventive maintenance strategies.

I applied principles to streamline processes and eliminate waste. This included using DMAIC (Define, Measure, Analyse, Improve, Control) methodology to enhance corrosion monitoring and reporting systems.

#### Element 7 – Responsibility for corrosion activities for your work and team

This **means** you execute personal responsibility for the decisions you make regarding the work that you do, lead or share

Example

In my role at a large oil refinery, my team faced a critical decision regarding the long-term corrosion prevention strategy for a series of aging pipelines that were essential for the refinery's operations. The pipelines had shown significant signs of deterioration, and our current maintenance approach was proving to be insufficient for managing the increasing rate of corrosion.



The decision at hand was whether to continue with the existing maintenance strategy, which focused on routine inspections and localized repairs, or to adopt a comprehensive, long-term corrosion prevention strategy that included the use of advanced corrosion-resistant coatings and a state-of-theart monitoring system.

I identified that the existing strategy was leading to frequent maintenance shutdowns, high repair costs, and increased risk of pipeline failure.

I gathered data, engaged with key stakeholders, facilitated workshops, researched other refinery practices, produced a cost benefit analysis and conducted a risk assessment,

Based on the all information, I proposed the adoption of a comprehensive corrosion prevention strategy that included the application of advanced corrosion-resistant coatings and the installation of a real-time corrosion monitoring system.

I presented this to the management team outlining the benefits, costs, risks, and expected outcomes of the proposed strategy. The management team thanked me for the prevention strategy which was then adopted and implemented.

#### Element 8 – Personal development in area of corrosion

This **means** you assess, acquire and apply the competencies and resources appropriate to corrosion activities; and **means** you use peer review or other input to describe your area(s) of competence

#### Example

I actively pursue opportunities to stay current with the latest developments in corrosion science and technology as demonstrated by my attainment of The Corrosion Technology Course (CTC) run by the ACA.

I regularly attend industry conferences and workshops on topics like Corrosion Management and Asset Integrity. These events provide opportunities to learn from experts, network with professionals, and explore innovative solutions for corrosion challenges.

To enhance my management skills, I am enrolled in a Leadership Development Program focused on project management, team dynamics, and strategic decision-making.

#### Element 9 – Communication and stakeholder engagement

This **means** you demonstrate effective communication with diverse stakeholders through use of differing communication techniques whilst taking into account the knowledge, expectations, requirements, interests, terminology and language of the intended audience

#### Example

I was tasked with leading a project to develop a comprehensive corrosion management plan for a major facility. The goal was to address ongoing corrosion issues affecting the facility's pipelines and storage tanks, which required coordination with multiple stakeholders including plant engineers, maintenance teams, external contractors, and senior management.

I began by identifying all relevant stakeholders and assessing their interests, concerns, and influence levels. I created a detailed communication plan that outlined objectives, key messages, communication channels, and a schedule for updates. I tailored the communication approach for different stakeholders to address their specific needs and concerns:

*Engineers and Maintenance Teams*: I held regular technical meetings to discuss progress, share technical updates, and solicit feedback. I used visual aids like charts and diagrams to simplify complex information.

*External Contractors:* I established a clear line of communication through scheduled progress review meetings and daily updates via email. I also set up a collaborative platform where all technical documents, schedules, and reports were accessible.



Senior Management: I provided concise, high-level updates focusing on project milestones, budget status, and key risks. I used executive summaries and visual presentations to communicate complex technical information in an understandable format.

*Interactive Workshops:* I organized workshops for engineers and maintenance teams to brainstorm solutions for specific corrosion challenges. These sessions encouraged open dialogue and collaborative problem-solving.

*Feedback Mechanisms:* I implemented feedback forms and suggestion boxes to gather input from all stakeholders. I reviewed this feedback regularly and incorporated valuable suggestions into the project plan.

*Transparent Reporting:* I maintained transparency by sharing regular progress reports with all stakeholders, highlighting both achievements and challenges. This approach helped manage expectations and build trust.

When conflicts arose, I addressed them through one-on-one meetings to understand different perspectives and find mutually acceptable solutions. For instance, when there were disagreements about the scope of work with external contractors, I facilitated discussions to align on project objectives and adjust the scope to meet both parties' expectations.

#### Element – 10 Development of creativity and innovation

This means you develop creative and innovative corrosion solutions to identified client needs

#### Example

In a recent project at a large industrial plant, we faced a significant challenge with the premature corrosion of critical pipeline systems. Traditional maintenance strategies had failed to prevent the rapid deterioration of the pipes, leading to frequent shutdowns and costly repairs.

To address this issue, I initiated a multi-faceted approach combining advanced technologies and creative problem-solving techniques. I proposed the integration of a real-time corrosion monitoring system using wireless sensor networks, which allowed for continuous data collection on corrosion rates and environmental conditions. Additionally, I explored the application of a novel corrosion-resistant coating that was still in the research phase but showed promising results in preliminary tests.

#### Element 11 – Problem analysis

This **means** you analyse corrosion problems and opportunities, and record the analytical methodology, the possible solutions, how the problem was resolved and why a particular solution was selected

#### Example

A client approached our company with a major problem, they were experiencing unexpected corrosion issues in an aging industrial pipeline system. The pipeline was a critical component of the facility's operations and had started showing significant signs of corrosion which could not be explained.

I began by gathering relevant data, including historical maintenance records, inspection reports, and previous corrosion assessments. I reviewed visual inspection reports, corrosion coupons, and data from corrosion monitoring equipment. I then conducted a root cause analysis using various diagnostic techniques. I organized a team of experts and carried out a series of detailed investigations including corrosion rate analysis, chemical analysis, and failure mode effects analysis (FMEA).

Once I had determined what I felt was the cause of the problem, I consulted with internal engineers and external corrosion specialists to review findings and discuss potential solutions. I organized brainstorming sessions to generate ideas and review the latest advancements in corrosion control technologies.

Based on the analysis, we developed a multi-faceted solution to address both the immediate corrosion issues and prevent future occurrences. The proposed solution included immediate repairs and a long term prevention program which included pipeline coating, cathodic protection, and regular monitoring.



I documented the entire process, including the problem analysis, solution strategies, and results. I developed training materials and conducted training sessions for the maintenance team on new procedures and technologies.

The actions taken successfully addressed the immediate corrosion issues and significantly improved the pipeline's condition. The new corrosion management strategies extended the lifespan of the pipeline system and reduced the frequency of future corrosion-related problems.

#### Element 12 – Judgement

This **means** you use sound judgement to make and record critical decisions through a balanced use of:

- Analytical and deductive processes based on experience, a full understanding of client needs and corrosion functionality, making appropriate use of available data;
- Pattern recognition that comes from experience, acknowledging intricacy, reconciling alternatives suggested by competing requirements and identifying variances from what is experienced

#### Example

I was called to site by a client to supervise the application of a coating. The client advised the coating was expected to significantly increase the life of the asset.

When I got to site, my experience with the coating that was to be applied, was that it was suitable as a short-term protective coating but would not meet the client's expectation of significantly extending the life of the asset. I instructed the applicator not to apply the coating until I had liaised with the client.

I appreciated there were conflicting requirements, the applicators wanted to finish the job so they could get paid and move on to the next job, and the client was expecting a product that would extend the life of the asset.

Changing the coating would provide a much better long-term solution and meet client expectations. I brought this to the attention of the client. Whilst they were expecting the job to have been completed on that day, they were thankful that I brought it to their attention and went on the specify an alternative product with the suggestions I presented them based on my experience.