CATHODIC PROTECTION PERSONNEL CERTIFICATION SCHEME TO ISO15257:2017

APPLICATION FORM: LEVEL 2, CATHODIC PROTECTION TECHNICIAN

APPLICATION SECTOR: REINFORCED CONCRETE

TYPE or PRINT in black ink. This form is available in e-format from <http://www.icorr.org>.

It is strongly advised that you review the guidance notes which accompany this form before and during completion. Failure to do so may result in your submission being returned as incomplete.

# PERSONAL INFORMATION AND APPLICATION DETAILS

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| Title |  | Surname |  | | | Forenames | | | |  | |
| Post-nominals | | |  | | | | | | | | |
| Telephone Mobile | | |  | | | | | | | | |
| Business | | |  | | | | | | | | |
| Home | | |  | | | | | | | | |
| E-mail Business | | |  | | | | | | | | |
| Home | | |  | | | | | | | | |
| Private Address (Including Postcode): | | | | | | | | | | | |
|  | | | | | | | | | | | |
| Business Address (Including Postcode): | | | | | | | | | | | |
|  | | | | | | | | | | | |
| Which address for communications? | | | | | | | Business / Home (delete as required) | | | | |
| Application Type - Please tick one box below:  If this your initial application for certification at level 2, please select initial certification.  If it is 5-years since your initial application or re-certification [10-years post initial certification] please select interim assessment.  If it is a multiple of 10-years since your initial application, please tick recertification. You will require an up-to-date practical examination pass before proceeding. Please contact the CP Scheme Manager at [**cpsm@icorr.org**](mailto:cpsm@icorr.org)**,** to arrange your examination. | | | | | | | | | | | |
| Initial Certification | | | |  | Interim Assessment | | |  | Re-Certification | |  |
| Course, Examination & Certification Details  This information can be found on your, Examination Pass, Certification or Dispensation confirmation e-mail.  If you are applying for initial certification, please provide either your Level 1 Certification number or dispensation reference and your examination pass reference.  If you are applying for an interim assessment, please provide your Level 2 Certification number only and for recertification include your up-to-date practical exam pass reference | | | | | | | | | | | |
| ICorr Level 1, Certification Number or dispensation reference: | | | | | | |  | | | | |
| ICorr Level 2, Examination Pass Reference: | | | | | | |  | | | | |
| ICorr Level 2, Certification No. | | | | | | |  | | | | |

# EMPLOYMENT HISTORY AND CAREER PROFILE

## EMPLOYMENT

You are asked to provide details of your present and previous employment and positions. The period should cover a minimum of one full year for initial applications and 5-years if applying for interim assessment or recertification. ICorr use this information to determine if you are likely to be undertaking the duties of a certificated CP person at the level, and in sector for which, you are seeking certification.

ICorr may contact your employer to verify any of the details you provide in this application.

Please include an organogram indicating your position within the business and in relation to your immediate supervisor, equivalents, and any immediate subordinate staff. Your own position must be clearly identifiable.

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| --- | --- | --- | --- |
| Employer |  | | |
| Employers Address  If different from Part 1. |  | | |
| Telephone number: |  | Date joined |  |
| Job Title |  | Grade (if applicable) |  |
| Responsibilities: | | | |
|  | | | |
| Previous Employer |  | | |
| Previous Employers Address |  | | |
| Telephone number: |  | Date joined |  |
| Job Title |  | Grade (if applicable) |  |
| Responsibilities: | | | |
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# KNOWLEDGE, COMPETANCE AND EXPERIENCE

As an ICorr certificated Cathodic Protection Technician you will have been demonstrated and examined on the knowledge items and tasks laid out in the following tables during your training.

All applicants for certification at Level 2 are expected to have gained a minimum of one year’s industrial experience before applying for certification. During this time and the period following your initial certification you should have practiced the skills learned during your training and should demonstrate this by completing the following sections.

## KNOWLEDGE AND COMPETENCE REQUIRMENTS

It is expected that you will have used the knowledge and undertaken the majority tasks listed in tables 1 through 3 below during this period. Please complete the tables below inserting an R, C, U or N where indicated.

R = Tasks you are deemed competent to carry out and have regularly carried out in your normal job activities.

C = Those tasks you are deemed competent to carry out although your present duties may not require them to be used regularly.

U = Tasks for which you have general understanding of the concepts involved but have limited or no direct experience.

N = Tasks with which you are not familiar and are not deemed competent.

We rely on the Applicant and their Referees to be honest and rigorous in the assessment of whether the Applicant is competent in their understanding and execution of the specific tasks below.

No applicant is expected to be competent in every task but applicants indicating a lack of understanding or competence in many areas may be requested to carry out additional training and assessment prior to being awarding certification.

Table 1 details knowledge which shall be understood by applicants for Level 2 whatever the application sector.

*Table 1: Detailed knowledge required by all levels and all sectors.*

|  |  |  |
| --- | --- | --- |
| Knowledge  number | Description of knowledge | Insert  R, C, U or N |
| 1 | Electricity relevant to CP application and measurements |  |
| 2 | Corrosion, electrochemistry and coatings relevant to CP |  |
| 3 | Theory, principles and criteria of CP |  |
| 4 | Requirements related to application of CP |  |
| 5 | Application methods of CP, galvanic anodes, impressed current |  |
| 6 | CP measurements and test procedures |  |
| 7 | Relevance of voltage gradient errors and influence on structure to electrolyte potential measurement |  |
| 8 | Factors influencing the correct selection of reference electrodes for potential measurements |  |
| 9 | Effects of excessive CP on coatings, high-yield strength steels and corrosion-resistant alloys |  |
| 10 | Diagnostics of CP systems |  |
| 11 | Interference conditions (alternating current and direct current) |  |
| 12 | Standards and codes of practice in the relevant application sector |  |

Table 2 details tasks which shall be fulfilled by Applicants for Level 2 whatever the application sector. Any certification granted shall, however, only cover these tasks where applicable to the sector of the certificated individual.

*Table 2: Tasks to be fulfilled by a level 2 applicants for all application sectors*

| Task  number | Description of task | Insert  R, C, U or N |
| --- | --- | --- |
| 3 | Collect general information for design purposes based on technical instructions for simple CP systems (as in Annex A Definitions) |  |
| 5 | Check calibration validity of CP measuring and testing equipment based on documentation |  |
| 6 | Measure structure to electrolyte potential |  |
| 7 | Perform verification test of working portable reference electrode against master electrode of the same type based on measurement |  |
| 8 | Perform verification test of working portable reference electrode against another type of reference electrode |  |
| 9 | Perform verification test of stationary reference electrode against a portable reference electrode |  |
| 10 | Perform pre-commission testing |  |
| 11 | Check whether the positive output of the rectifier is connected to the anode and the negative output is connected to the structure |  |
| 12 | Identify a wrong polarity of the CP system by structure to electrolyte potential measurement |  |
| 14 | Record and report results of the measurements in a comprehensible format |  |
| 19 | Measure current and voltage in the CP circuit |  |
| 20 | Carry out basic maintenance work on CP systems |  |
| 21 | Inspect and measure of DC power supply output current and voltage |  |
| 22 | Inspect and verify DC power supply overall operations |  |
| 23 | Inspect and maintain DC power supply output terminations if accessible without exposing persons to live AC equipment |  |
| 24 | Inspect and maintain DC power supply components |  |
| 25 | Verify DC power supply voltage and current outputs with portable calibrated meter |  |
| 26 | Routine and expected adjustment of current output to maintain pre-determined performance |  |
| 29 | Ensure compliance with safety requirements related to application of CP in the application sector, task and competence level |  |
| 30 | Perform risk assessment of safety requirements related to application of CP in the application sector, task and competence level |  |
| 33 | Set up measuring and testing equipment and verify equipment settings |  |

Work on the AC mains, side of transformer rectifiers is specifically excluded from the competence requirements of all levels of personnel. Regulations, training and specific certifications apply for work on mains voltage equipment.

APPLICATION SECTOR SPECIFIC TASKS – REINFORCED CONCRETE STRUCTURES

*Table 3: Specific tasks to be fulfilled by Level 2 Cathodic Protection Technician for Reinforced Concrete Structure Application Sector*

| Task  number | Description of task | Insert  R,C,U or N |
| --- | --- | --- |
| 1 | Test electrical continuity of reinforcement to allow accurate potential measurements |  |
| 2 | Measure steel to concrete natural potential in concrete |  |
| 3 | Measure “Half Cell Potential Survey” (close interval survey natural potential) |  |
| 5 | Locate reinforcement with cover meter |  |
| 6 | Measure cover to reinforcement with cover meter |  |
| 7 | Supervise or undertake the collection of concrete drilling dust or core samples for chloride testing |  |
| 9 | Test carbonation to broken or cored concrete |  |
| 15 | Measure reinforcement electrical continuity (resistance and potential techniques) |  |
| 16 | Supervise reinforcement electrical continuity bonding and retest |  |
| 17 | Supervise installation of cable connection to reinforcement or embedded/surface mounted metallic items: mechanical |  |
| 18 | Supervise installation of cable connection to reinforcement or embedded/surface mounted metallic items: exothermic/welded/pin brazed |  |
| 21 | Supervise connections of cables to anodes and (if applicable to anode system) primary anode system installation into secondary anode system |  |
| 24 | Measure anode to reinforcement isolation (resistance and potential techniques) |  |
| 25 | Measure anode circuit continuity or resistance |  |
| 26 | Measure cathode and test circuit continuity or resistance |  |
| 29 | Measure ON and instant OFF potential and current at permanently installed reference electrodes and coupons |  |
| 30 | Measure ON and instant OFF potential and potential decay from instant OFF at permanently installed reference electrodes |  |
| 31 | Survey/measure potential decay from instant OFF over concrete surface using portable reference electrodes |  |

## INDUSTRIAL EXPERIENCE

As a certificated CP Technician, it is required that you spend no less than 20% [approximately 48 days per year] of your professional activities on Cathodic Protection duties at Level 2 or higher.

Please complete the table below providing details of relevant work undertaken and referencing items from tables 2 and 3 from SECTION 3.1. An example entry is provided in the first row.

The period covered should be no less than the 1-year for initial applications or 5-years for interim assessment and recertification. The total time listed should amount to 48-days per year for every year covered by this application.

|  |  |  |  |
| --- | --- | --- | --- |
| Dates | Works undertaken | Duration  [Days] | How verified: Manager, Self or Referee\* |
| *1/1/2020 to 1/6/2020*  *[Example Only – Delete]* | *Installation of impressed current CP system to Highways Bridge.*  *Table 2, Items No.s: 1-4, 13-15, 18, 19, 21-31, 33, 35, 37 & 42.*  *Table 3, Items No.s: 7, 8, 11, 14, 16-26, 28-30.* | *25* | *Manager* |
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|  |  |  |  |
| **Total Time** | |  | |

\*If Referee Please indicate Ref 1 or Ref 2

You may extend and rows, as necessary.

You may provide the information above in your own format provided it covers the information required. If you choose this option, please indicate this by stating “Attachment Included” in the 1st row of the above table. If you are submitting your application electronically then please save your attachment as the date of application in the form yyyy-mm-dd followed by your initials and “Level 2 Experience”.

# ATTESTATION

In signing and completing this form I confirm that the information given above, and attached, is truthful and accurate. I acknowledge that my Certification can be withdrawn by the Institute of Corrosion if any element of the above information is shown to be false and that such withdrawal can be published by the Institute.

I also accept that the Institute of Corrosion will maintain records of my Certification and may disclose them at any time to any enquirer seeking personnel Certificated in Cathodic Protection. The Institute of Corrosion is authorised to make contact with me by the details that I have provided above.

I am also accepting and agreeing to work within the Code of Ethics for the Institute of Corrosion Scheme for Certification of Inspection and Cathodic Protection Personnel as detailed below:

CODE OF ETHICS FOR ICORR CERTIFICATION OF CATHODIC PROTECTION PERSONNEL

This code must be upheld by all personnel Certificated to levels 1- 5 under the Institute of Corrosion’s *ICorr Certification Scheme* for Inspection and Cathodic Protection personnel engaged in painting and coating inspection, cathodic protection, and in inspection of pipe coating, insulation, fire proofing and metallic coatings.

Before ICorr Certification or Re-certification can be issued, participants in the scheme shall sign this Code of Ethics and undertake to comply with the following:

I undertake to uphold the dignity and good standing of my profession and the Institute of Corrosion and its Certification Scheme; I will observe the highest standards of ethical behaviour and obey local laws.

I will exercise due skill, care and diligence in all of my professional activities.

I acknowledge that my activities may impact on the health and safety of individuals, of the public at large, on the safety of plant and facilities on which I work and on the environment; I will be rigorous in the execution of my professional activities.

I shall not use ICorr Certification to mislead any individual, employer or authority by presenting it as testimony that applies to any task outside the scope of the Certification as declared on the ICorr Certificate. I shall not permit my ICorr Certification to be used by any other party nor shall I knowingly permit my Employer or others to misuse the Certification documents issued to me.

I shall always endeavour to become fully familiar with my duties and understand the scope of my authority prior to performing work. I shall not accept duties for which I am not trained and proficient; if I am requested to do so I will request – (in writing) – to receive additional training and mentored experience.

I recognise that it is my duty to perform tasks as I have been contracted to do and I shall not allow deviations from specified requirements unless given permission – (in writing) – to do so by a higher authority.

I will report – (preferably in writing) – to a higher authority if I am aware of any specified requirements which may lead to adverse work or conditions which were not intended.

I will endeavour to perform inspections, tests, measurements and any other work for which I have been contracted to the best of my ability and will inform my superior(s) – (in writing) – if I am unable to do so.

I will not accept gratuities of any kind which may affect my judgement in the work that I am performing as an ICorr Certificated individual.

I will endeavour to be fair, reasonable and objective towards the requirements for which I perform at all times.

I will not allow my work to be influenced by personalities or other individual considerations.

I hereby agree to uphold and abide by this code and I acknowledge that I may be subject to a disciplinary procedure which could result in loss of Certification if it can be proven that I have failed to comply or have provided false information associated with my participation in the scheme.

|  |  |  |
| --- | --- | --- |
| Name (Print) | Signature of Applicant: | Date |

# REFEREES

Two Referees are required, one who has a direct knowledge of the applicant’s employment and day-to-day work and another who is suitably independent such that they would receive no professional or commercial gain from supporting this application.

At least one referee shall be certificated to ISO 15257:2017, Level 3 or higher in the same application sector for which certification is sort and have recent experience with the applicant in a professional capacity. The other referee, if not also a certificated CP professional, should be a Chartered Engineer or Scientist. Both referees should have known the applicant for a minimum of 1-year. The two referees should not be from the same company/organisation. Applicant and referee should not be related in anyway.

REFEREES ATTESTATION

I confirm that I have read the Criteria for Level 2 Certification and confirm that the applicant is competent to carry out the tasks listed above. I recommend that the applicant, to the best of my knowledge and belief, is a fit person to be registered as a Certificated Level 2, Cathodic Protection Technician through the Institute of Corrosion.

**Referee 1**

|  |  |  |  |
| --- | --- | --- | --- |
| Name |  | Qualification |  |
| Address |  | | |
| Tel No |  | | |
| Email |  | | |
| Signature |  | Date |  |

Please also initial at the bottom of each page where indicated to confirm that the information is to the best your knowledge true and correct.

**Referee 2**

|  |  |  |  |
| --- | --- | --- | --- |
| Name |  | Qualification |  |
| Address |  | | |
| Tel No |  | | |
| Email |  | | |
| Signature |  | Date |  |

Please also initial at the bottom of each page where indicated to confirm that the information is to the best your knowledge true and correct.

If a referee is unable to verify significant portions of the content on a given page we ask that they strike-through their verification box and initial only the content they can verify.

# PAYMENT

A non-refundable administration fee of **£15.00 +VAT** should accompany this application form, please note your application will not be forwarded for assessment without this payment and will not be processed.

Payment by cheque

|  |  |
| --- | --- |
| I enclose a cheque crossed and made payable to The Institute of Corrosion for **£15** plus VAT |  |

Payment by credit card

|  |  |
| --- | --- |
| Visa/MasterCard only – Please telephone the ICorr Office on 01604 438222 to make payment |  |

A **£50.00 +VAT** registration fee will become due when the ICorr office has received notification from the assessors that your application has been successful, you will be contacted with a request for this payment before your certificate is sent to you.

**OPTIONAL**

As a Level 2 Certificated Cathodic Protection Technician you may be eligible to apply for the Technician Membership [TICorr] with the Institute of Corrosion.

|  |  |
| --- | --- |
| If you wish to receive information on how to apply for professional membership of ICorr, Please tick the box |  |

DATA PROTECTION

If your application is successful, details will be held on the Institute of Corrosion’s Certification Register database. This publicly available register will include your name, e-mail address and details of the sectors for which you hold accreditation.

|  |  |
| --- | --- |
| If you do not wish your details to be published on the public register, please tick here. |  |

ICorr may wish to use the information you supply in this application to communicate with individuals effectively. You have the right of access your personal data held by ICorr and the right to prevent its use for direct marketing services.

Whilst you remain a registered Cathodic Protection Technician ICorr is unable to delete or remove your data from our records but will do so upon instruction to do so and termination of your certification.

|  |  |
| --- | --- |
| If you wish to receive a copy of the information we hold, please tick the box |  |

# SENDING YOUR APPLICATION

Please send this signed and completed application along with supporting documentation to:

INSTITUTE OF CORROSION

Corrosion House,

5 St Peters Gardens,

Marefair,

Northampton,

NN1 1SX

FAO Professional Assessment Committee, CP Sub-Committee Chair

or by e-mail to [**admin@icorr.org**](mailto:admin@icorr.org). If your submission exceeds 10mb in size please contact ICorr as alternative means of submission may be required.

Please check that you have completed all sections of this application before sending your application.

ICorr endeavour to process applications within 28-days of receipt of a complete and valid application. Under no circumstances shall ICorr be liable for loss of earnings or contracts which may be conditional upon certification.