

Cathodic Protection Program (CP) Training & Certification

Learn the skills
essential to CP
system supervision

CP 1 - Cathodic Protection Tester
CP 2 - Cathodic Protection Technician
CP 3 - Cathodic Protection Technologist

Organised by

NACE CP Programs have provided the pipeline industry with corrosion solutions since 1943. It is the most established certification program, from the largest corrosion association in the world.

Description

The CP 1-Cathodic Protection Tester course is an intensive 6-day course presenting CP technology, which prepares students for the NACE Cathodic Protection Tester Certification examination. This course provides theoretical knowledge and practical fundamentals for testing on both galvanic and impressed current CP systems. Classroom instruction is comprised of lectures and hands-on training at an outdoor facility, using equipment and instruments for CP testing. The course concludes with a 2.5-hour written and a 2-hour practical exam.

Who Should Attend?

- CP field personnel and technicians
- CP system supervisors
- CP system data recorders
- CP system inspectors

Why Attend?

- Ensure job security with training on one of the most widely used methods for corrosion prevention
- Receive hands-on training to develop CP testing skills used to detect corrosion in pipelines and other steel structures
- Learn CP system components, code requirements, and measuring CP system effectiveness

What You Need to Know to Succeed in This Course

Students with little CP experience may be successful in this course if they can grasp scientific concepts, can perform math calculations, and possess an understanding of electrical measurements. Ideally, students should have six months of solid work experience in handling CP instruments under the supervision of an experienced CP Tester or Technician. They should also be comfortable with math concepts that include subtraction, division, fractions, algebra, balancing equations, conversions of units, percentages, and graphs. An understanding of Ohm's Law applied to series and parallel circuits is also an advantage.

Course Highlights: (Including but not limited)

- Basic electricity
- Basic chemistry and corrosion fundamentals
- CP fundamentals
- Field measurements
- Stray current identification
- Installing CP components
- Monitoring CP systems
- Record keeping
- Safety specific to CP
- Troubleshooting

Prerequisites:

- The following prerequisites are highly recommended, but not required:
 - »» High school diploma or GED
 - »» months of CP work experience
 - »» Ability to perform basic math calculations (simple algebra, fractions, and conversions)

Certification:

- Cathodic Protection Tester

Duration of Course:

- 6 Days
- 8.00 am to 6.00 pm, Class hours

CP2 - Cathodic Protection Technician

Description

The CP 2-Cathodic Protection Technician course is an intensive 6-day course presenting CP technology, which prepares students for the NACE Cathodic Protection Technician Certification examination. Course topics include intermediate-level discussions of corrosion theory and CP concepts, types of CP systems, AC and DC stray current interference, and advanced field measurement techniques. This course provides both theoretical knowledge and practical techniques for testing and evaluating data to determine the effectiveness of both galvanic and impressed current CP systems and to gather design data. Classroom instruction is comprised of lectures and hands-on training at an outdoor facility, using equipment and instruments for CP testing. The course concludes with a 2.5-hour written and a 2-hour practical exam.

Who Should Attend?

- CP field personnel and technicians
- CP system supervisors
- CP system data recorders
- CP system inspectors
- Individuals that can diagnose system failures and recommend corrective action
- Corrosion professionals and pipeline engineers
- CP tester with a career path for site supervision

Why Attend?

- Learn how to diagnose stray current in CP systems
- Receive hands-on training at an outdoor facility, using equipment and instruments for CP testing
- Ensure job security with training on one of the most widely used methods for corrosion prevention

Course Highlights: (Including but not limited)

- Corrosion theory
- CP fundamentals
- DC power sources
- Field measurements and instrumentation
- Safety specific to CP
- CP record keeping

Prerequisites:

Path 1

1 year CP work experience

PLUS

4-year physical science or engineering degree

PLUS

CP Tester Certification or equivalent training

Path 2

2 years CP work experience

PLUS

2-year post high school training from an approved math or science technical/trade school including algebra and logarithms training

PLUS

CP Tester Certification or equivalent training

Path 3

3 years CP work experience

PLUS

High school diploma or GED including algebra and logarithms training

PLUS

CP Tester Certification or equivalent training

Certification:

- Cathodic Protection Technician

Duration of Course:

- 6 Days
- 8.00 am to 6.00 pm Class hours

The CP3-Cathodic Protection Technologist course builds on the technology presented in the CP2-Cathodic Protection Technician course.

Course Highlights:^(Including but not limited)

- Theoretical concepts and practical application of cathodic protection with a strong focus on interpretation of CP data
- CP troubleshooting and mitigation of problems that might arise in both galvanic and impressed current systems

Skill Assessment:

The exams will include various levels of assessment of the following skill and knowledge factors:

- Understand activation, concentration and resistance polarization and the mathematical expressions of these concepts
- Factors that affect polarization (area, temperature, relative movement, ion concentration, oxygen concentration)
- Understand the concept of current distribution and be able to determine ideal current distribution for a CP system taking into account the factors affecting current distribution (anode-to-cathode separation distance, electrolyte and structure resistivity variation, current attenuation)
- Perform advanced cathodic protection testing using correct measurement techniques to monitor CP system performance and accurately interpret the data collected to ensure optimum CP system performance.
- Identify errors in data collection/CP measurements including contact resistance errors, voltage drop errors and, reference electrode errors
- Conduct and document interference tests where stray currents are suspected to determine if interference exists and identify the source of the interference
- Upon determination of interference, identify and implement a method of control that will mitigate the effects of the stray current
- Design and install simplistic forms of galvanic and impressed current cathodic protection facilities and perform the necessary mathematical calculations

Who Should Attend?

Persons who have extensive CP field experience and a strong technical background in cathodic protection.

Application Procedure

An application must be submitted prior to taking the examination-only option to allow time for NACE to verify work experience requirements. If seeking certification through the parallel path option, an application may be submitted upon successful completion of the required NACE course, for verification of work experience requirements.

Option 1

- Application - CP Technologist and one of the following:
- Course - CP3 - Cathodic Protection Technologist
- Exam Course - CP Technologist and
- Req - High School Diploma and
- Certification - CP Technician and
- Work Experience - 8 Years

Option 2

- Application - CP Technologist and one of the following:
- Course - CP3 - Cathodic Protection Technologist
- Exam Course - CP Technologist and
- Req - Post Highschool Math/Science and
- Certification - CP Technician and
- Work Experience - 6 years

Option 3

- Application - CP Technologist and one of the following:
- Course - CP3 - Cathodic Protection Technologist
- Exam Course - CP Technologist and
- Req - Bachelor's Degree in Physical Sciences or Engineering and
- Certification - CP Technician and
- Work Experience - 3 years

Correspondence / Registration / Details

NACE International Gateway India Section

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E-mail: nace@mtnl.net.in / technical@corcon.org

Website: www.naceindia.org

Organised by

REGISTRATION FORM
NACE International
 (EDUCATION TRAINING PROGRAM)
Cathodic Protection

Name: _____

Nace International Membership No. _____ Valid upto _____

Company & Designation : _____

Address: _____

City: _____ State: _____ Pin: _____ Country: _____

Mobile: _____ Tel: (O) _____ (Home) _____ Fax: _____

E-mail : _____

Please register myself for Course Dt. at Mumbai

Registration Fees :

Course	Date	Member		Non - Member	
		Registration Fee	+ GST	Registration Fee	+ GST
CP Tester (CP-1)	13 Feb – 17 Feb 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%
CP Technician (CP-2)	19 Feb – 23 Feb 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%
CP Technician (CP-2)	29 May – 2 June 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%
CP Technologist (CP-3)	04 June – 09 June 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%
CP Tester (CP-1)	13 Nov – 17 Nov 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%
CP Technician (CP-2)	19 Nov – 23 Nov 2018	₹. 1,40,000/-	+ 18%	₹. 1,50,000/-	+ 18%

* Registration Fee + GST 18% Extra : * (Member Fee: ₹165,200/-) (Non-member Fee: ₹ 1,77,000/-)

Enclosed Cheque No..... dt For ₹ /- in favour or

“CORCON INSTITUTE OF CORROSION”

Place: _____ Date: _____ Signature : _____

For all CP1 – Tester, CP2 –Technician and CP3 – Technologist, the final written examination (currently being converted to computer-based testing – CBT) will no longer be proctored on the last day of class and will need to be scheduled separately from the course. You will receive an examination authorization e-mail with details on how to schedule your CBT examination. The final practical examination will still be given in class, at the end of the week.

Bank Information

Beneficiary Account Name:
CORCON INSTITUTE OF CORROSION
 Bank Name : **HDFC BANK**
 Beneficiary Bank Account NO.: **50200007525208**
 Account Branch : **0321, JUHU-JVPD SCHEME**
 Address : **30, NAVYUG SOCIETY, KRISHNA KUNJ,
 V.L. MEHTA ROAD, OPP. SUNFLOWER
 HOSPITAL, JVPD SCHEME,
 MUMBAI – 400056**
 RTGS/NEFT IFSC : **HDFC0000321**
 MICR : **400240044**

Registration

Registration fees and form must be received before 30 days prior to start of the course. Once Payment has been received, confirmation or registration will be sent to you. Enrolment is provided on a first come first served basis as seats are limited.

Participants are responsible for making their own accommodation arrangements directly with the hotel. NACE regrets that it cannot be responsible for any loss or damages incurred as a result of cancellation of a course by NACE for any reason.

NOTE : Please bring your Government issued photo ID during the course, as the photo ID will be checked by instructors of NACE International at the beginning of the course and prior to exam

CORRESPONDENCE

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