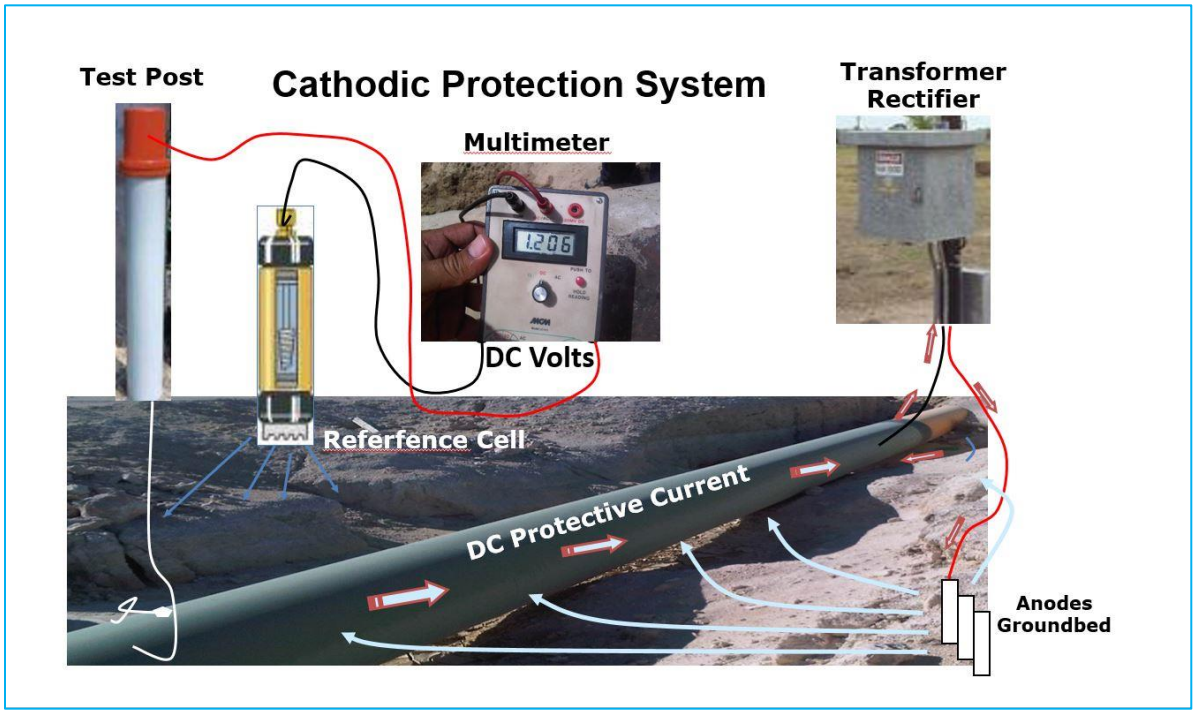


FE164-4D:
Cathodic Protection Design

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Training Description:

This training course is an introduction to the design and application of cathodic protection systems to mitigate corrosion in underground steel structures such as tanks and pipelines. It includes information about the design of both sacrificial anode and impressed current cathodic protection systems. It also introduces you to the on-site testing needed in order to acquire the technical information needed to successfully complete the system design.

This intensive training course will give engineers and others engaged in design of design and maintenance of underground steel structures such as tanks and pipelines an introduction to cathodic protection using sacrificial anode and impressed current systems.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Learn about the site testing requirements needed to design cathodic protection systems
- ✓ Learn how to calculate current requirements based on coating efficiency and current density
- ✓ Learn the nine steps in designing a sacrificial anode system
- ✓ Learn the thirteen steps in designing an impressed current system
- ✓ Learn how to calculate the number of anodes needed in both sacrificial anode and impressed current systems
- ✓ Learn how to calculate system life expectancy for sacrificial anode systems and
- ✓ Learn how to calculate rectifier voltage for impressed current systems

Training Designed for:

This course is intended for engineers and other construction professionals with a current or prospective need to understand the fundamentals of protecting underground structures such as tanks and pipelines from corrosion using sacrificial anode and impressed current cathodic protection systems.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FOUR DAYS:

- ❖ INTRODUCTION
  - Purpose
  - Corrosion
  - Cathodic protection
  - Types of cathodic protection systems
- ❖ CATHODIC PROTECTION DESIGN
  - Required information

- Determining type and design of cathodic protection system
  - Sacrificial anode (galvanic) cathodic protection system design
  - Impressed current cathodic protection system design
- Borrow Areas

❖ CURRENT REQUIREMENT TESTING
- Required current
- Sample test

❖ Course Conclusion

❖ POST-ASSESSMENT and EVALUATION - This course includes a multiple-choice quiz at the end, which is designed to enhance the understanding of the course materials.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location- This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:
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