
**Assessment of the effectiveness of
cathodic protection based on coupon
measurements**

*Evaluation de l'efficacité de la protection cathodique par mesurages
sur coupon*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Assessment of CP effectiveness	3
5 Application principles	4
5.1 IR-free potential measurements.....	4
5.2 DC and AC currents and current densities.....	4
5.3 Spread resistance.....	5
5.4 Corrosion rate measurements.....	5
6 Design considerations	5
6.1 General.....	5
6.2 Geometry of the defect.....	5
6.3 Dimension of the coupon base plate.....	6
6.4 Surface area of the coupon.....	7
6.5 Other types of coupon geometries.....	7
7 Monitoring purpose — Selection of installation sites	7
7.1 General.....	7
7.2 Detailed and comprehensive assessment of CP effectiveness.....	7
7.3 Assessment of CP effectiveness under DC interference conditions.....	8
7.4 Assessment of CP effectiveness under AC interference conditions.....	9
8 Installation procedures	9
9 Commissioning of coupons	10
9.1 Preliminary checking.....	10
9.2 Start up.....	10
9.3 Measurement of the settled parameters.....	11
9.4 Installation and commissioning documents.....	11
9.5 Frequency of coupon measurement.....	11
Annex A (informative) Special types and procedures of coupons and probes	12
Annex B (informative) Assessment of the effectiveness of CP under any conditions including DC and/or AC interferences	15
Annex C (informative) Examples of instant-off and current density measurements on coupons — Remote monitoring and remote control	17
Bibliography	22