

ISO 19283:2020-04 (E)

Condition monitoring and diagnostics of machines - Hydroelectric generating units

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	2
5 Initial preparations for condition monitoring	3
6 Failure modes of hydro unit components	4
6.1 General	4
6.2 Hydro unit components	4
6.3 Potential failure mode identification and prioritization	4
7 Monitoring and diagnostic techniques	5
7.1 General	5
7.2 Condition monitoring techniques overview	5
7.3 Primary descriptors and plots	7
7.4 Correlation measurements	7
7.5 Adaptive monitoring strategy	8
7.6 Monitoring and diagnostic technique selection and evaluation	8
8 Implementing, operating and maintaining a monitoring solution	9
8.1 General	9
8.2 Sensor selection and installation	9
8.3 Condition monitoring system evaluation and selection	10
8.4 Daily operation of the monitoring system	10
Annex A (informative) Machine components and failure modes	12
Annex B (informative) Monitoring techniques for hydro unit components and failure modes	19
Annex C (informative) Primary monitoring and diagnostic techniques	26
Annex D (informative) Evaluation of monitoring techniques	59
Bibliography	61