ISO 13381-1:2004-11 (E)

Condition monitoring and diagnostics of machines - Prognostics - Part 1: General guidelines

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Pre-requisite data required 2

5 Prognosis concepts 3
5.1 Basic concepts 3
5.2 Influence factors 5
5.3 Setting alert, alarm and trip (shut-down) limits 6
5.4 Multiple parameter analysis 8
5.5 Initiation criteria 10
5.6 Prognosis of failure mode initiation 11

6 Failure and deterioration models used for prognostics 12
6.1 Modelling concepts for failure mode behaviour 12
6.2 Modelling types 13

7 Generic prognosis process 13
7.1 Prognosis confidence levels 13
7.2 Prognosis process 13

8 Prognosis report 15

Annex A (normative) Condition monitoring flowchart 16

Annex B (normative) Example of the determination of the confidence level of a prognosis 17

Annex C (informative) Failure modelling techniques 18

Bibliography 20