WOODHEAD PUBLISHING INDIA IN TEXTILES



Training and Development of Technical Staff in the Textile Industry

B. Purushothama



Contents

Preface		xi
1	Technical staff development	1
1.1	The need for trained technical staff	1
1.2	Quality people – key to excellence	2
1.3	Duration of training	4
1.4	Recognition	4
1.5	Training modules	4
2	Technical staff – the middle management	6
2.1	Introduction	6
2.2	Roles and responsibilities of supervisors	6
2.3	The organization structure	8
2.4	Routine and special activities	8
2.5	Challenges to middle management	11
2.6	Understanding the requirement of a customer	12
2.7	Understanding the company capabilities	14
2.8	Understanding the legal requirements of the process	15
2.9	Designing the product	17
2.10	Designing the process	18
2.11	Deciding the measuring and monitoring of process	20
2.12	Working out the quality plans	22
2.13	Working out the production programme	23
2.14	Planning for the raw materials, spares, consumables, etc	23
2.15	Procuring required material in time	24
2.16	Planning the maintenance activities	24
2.17	Tuning the machines as per the process design	26
2.18	Educating and training the men on shop floor	27
2.19	Allocating the competent workmen for the skilled jobs	27
2.20	Monitoring the process periodically to ensure its performance	29
2.21	Documenting the procedures, actions and the results	30
2.22	Reporting the activities	31
2.23	Analysing the reasons	31

vi	Contents	
2.24 2.25	Managing the activities in time At the end	31 32
3	Policy deployment and middle management	34
3.1 3.2 3.3	Introduction Tasks in policy deployment Steps in deployment of a policy	34 34 36
4	Job description	40
4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10	Introduction Tasks Responsibilities Authorities Minimum competency level Examples of job descriptions General requirements of production supervisors General requirements for maintenance supervisors The control points and the check points for supervisory functions Common problems and quality complaints	$ \begin{array}{r} 40\\ 40\\ 40\\ 41\\ 41\\ 41\\ 45\\ 47\\ 49\\ 51\\ \end{array} $
5	Leadership and self development	53
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	Introduction Who is a leader? Why we need a leader? Emotional intelligence (E.Q) Leadership styles Supervisor as a leader How to become a good leader? Self awareness and development	53 53 54 56 57 59 60 60
6	Individuals and teams	72
6.1 6.2 6.3	Need for building team Formal and informal teams	72 73
6.4 6.5 6.6 6.7	Characteristics of an effective team Process of team building Motivating a team Interpersonal conflicts Quality circles and project teams	75 78 80 81 83
6.5 6.6	Characteristics of an effective team Process of team building Motivating a team Interpersonal conflicts	75 78 80 81

- AL

7.2	What are to be decided?	85
7.3	Types of decision	86
7.4	Factors influencing decisions	87
7.5	Base for decisions	87
7.6	Tools for decision making	88
7.7	Decision-making journey	89
7.8	Work process designing	91
7.9	Loyal friends in decision making	91
8	Communication and supervisor	93
8.1	What is communication?	93
8.2	Methods of communication	93
8.3	Effective communication	97
9	Costing and cost of quality	99
9.1	Definitions	99
9.2	Elements of cost	99
9.3	Methods of costing	101
9.4	Cost of quality	103
9.5	Controlling the costs	109
10	Problem solving and change management	115
10.1	What is a problem?	115
10.2	Roots of a problem	115
10.3	Seven steps for problem solving	117
10.4	Use of QC tools	119
10.5	Diagnosis and remedial journey	132
10.6	Manage the change	135
11	Supervisors and customer orientation	140
11.1	Customer orientation	140
11.2	Customer expectations	140
11.3	Understanding customer perception	144
11.4	Communicating customer needs down the line	145
12	Quality management and assurance	147
12.1	Expectations from supervisory staff	147
12.2	Quality planning	147
12.3	Controls and checks	150
12.4	Quality assurance	151
12.5	Ouality improvement	152

12.6 12.7 12.8	Visual management Six sigma and zero defect concepts Lean management and waste reduction	153 154 155
13	Practical competency and underpinning knowledge	159
13.1 13.2	Defining competency and knowledge Requirements for different supervisors	159 161
14	Control points and check points	187
14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9	Process spinning Process – post spinning Process – doubling Process – weaving preparatory Process – weaving Process – wet processing Process – knitting Process – maintenance Process – garment production	187 197 199 202 205 206 211 212 214
15	Normal problems and nonconformities	218
15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.12 15.13 15.14	Blow room Carding Combing Draw frames Speed frames Ring frames Winding Rotor spinning Ply-winding Doubling and twisting. Warping Sizing Weaving Soft package winding of yarn for wet processing	218 220 222 223 223 225 226 226 226 226 226 227 228 229 233
15.14	Scouring	233
15.16	Yarn dyeing in package form	234
15.17	Fabric dyeing	235
15.18	Finishing	235
15.19	Mercerization	236
15.20	Roller printing	236
15.21	Screen printing	237

VIII

Contents

15.23Embroidery defects in garment manufacturing215.24Seam quality defects2	
15.25Fitting related defects in garments2	251
References 21 Index 21	52 54