Chase—Jacobs—Aquilano: Operations Management for Competitive Advantage, 11th Edition IV. Planning and Controlling the Supply Chain 16. Material Requirements Planning

© The McGraw-Hill Companies, 2005

660

section 4

PLANNING AND CONTROLLING THE SUPPLY CHAIN

exhibit 16.25

Bills of Materials for Products A, B, and C

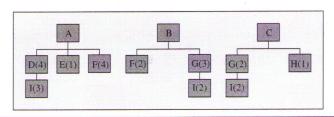


exhibit 16.26

Work Center Routings for Products and Components

Ітем	WORK CENTER NUMBER	STANDARD TIME (HOURS PER UNIT)	Ітем	WORK CENTER NUMBER	STANDARD TIME (HOURS PER UNIT)
Product A	1	0.20	Component E	2	0.15
	4	0.10		4	0.05
Product B	2	0.30	Component F	2	0.15
	4	0.08		3	0.20
Product C	3	0.10	Component G	1	0.30
	4	0.05		2	0.10
Component D	1	0.15	Component H	1	0.05
	4	0.10		3	0.10

exhibit 16.27

Inventory Levels and Lead Times for Each Item on the Bill of Materials at the Beginning of Week I

On HAND (UNITS)	LEAD TIME (WEEKS)	
100	1	
200	1	
175	1	
200	1	
195	1	
120	1	
200	1	
200	1	
300	1	
	100 200 175 200 195 120 200	

development in Queensland, Australia. Under the direction of Williams, NCO has diversified to include a number of other products.

NCO currently has 355 full-time employees directly involved in manufacturing the three primary products: A, B, and C. Final assembly takes place in a converted warehouse adjacent to NCO's main plant.

THE MEETING

Williams called a meeting the next day to get input on the problems facing NCO and to lay the groundwork for some solutions. Attending the meeting, besides himself and Barney Thompson, were Allison Bright of production and inventory control, Trevor Hansen of purchasing, and Margaret Wu of accounting.

The meeting lasted all morning. Participation was vocal and intense.

Bright said, "The forecasts that marketing sends us are always way off. We are constantly having to expedite one product or another to meet current demand. This runs up our overtime."

Thompson said, "Production tries to run too lean. We need a large inventory of finished goods. If I had the merchandise, my salespeople could sell 20 percent more product."

Wu said, "No way! Our inventory is already uncomfortably high. We can't afford the holding costs, not to mention how fast technology changes around here causing even more inventory, much of it obsolete."

Bright said, "The only way I can meet our stringent cost requirement is to buy in volume."