HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

TOTAL QUALITY MANAGEMENT IN A FOOD INDUSTRY

M/631

BY: CHARALAMBOUS ANTONAKIS

JUNE 1993

700 21.72

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Dr. L. Lazaris lecturer in Mechanical Engineering, at H.T.I. for his assistance and guidance offered to me in carrying out the presented diploma project.

I wish also to thank Mr I. I. Angeli, laboratory assistant of 1st grade in H.T.I., for his helpful offered to me by providing me useful books and information, about this project.

I also thank Mr Melis Charalambides, Mr Antonis Aristodemou and Mrs Theognosia Georgiou, for their helpful offered to me by providing me useful books and information, about this project.

ABSTRACT

The objectives of this project are to examine the manufacturing processes, identify the existing quality system used and make recommendations for the improvement of the existing quality system aiming for Total Quality. All recommendations are done in accordance to CYS.

The case study was carried out in Charalambides Dairies. This company is producing pasteurized milk.

In the first chapter reference is made on quality, quality management and total quality management.

In the second chapter reference is made on the processes involved throughout the manufacturing operation in Charalambides Dairies and also reference is made on the model UP-S120 filler machine.

In the third chapter reference is made on quality systems which are used to improve the quality of the milk.

In the fourth Chapter reference is made on troubleshooting and preventive maintenance.

CONTENTS

			<u>Page</u>
ACKNOWL	ED	GEMENTS	1
ABSTRAC'	r		2
CHAPTER	1	INTRODUCTION	
		What is Quality	3
		What is Quality Management	3
		What is Total Quality Management	4-8
CHAPTER	2	PROCESSES INVOLVED THROUGHOUT THE	
		MANUFACTURING OPERATION IN	
		CHARALAMBIDES DAIRIES	9
		Processes involved throughout the	
		manufacturing operation	16
		Model Up-S120 filler Machine:	16
		- Carton-Feeding Section	16
		- Bottom-Sealing Section	16-17
		- Top-Sealing Section	17
		- Product-Filling Section	17
		- Top-Sealing Section	18
		Interlocking system by sequence control	20-26
CHAPTER	3	QUALITY SYSTEMS	
		Quality Characteristics	
		- General Requirements	27-31
		Inspection - Tests:	31
		- Chemical Inspection	31
		- Microbiological Inspection	31
		- Tests for Pasteurised and Raw Milk	31
		Standard Tables	32-37
		Water Softener	37-42
CHAPTER	4	TROUBLESHOOTING - PREVENTIVE MAINTENANCE	Σ
		Problems, Possible Causes and Solutions	
CUADEE	E	CONCLUSIONS	
CHALTER	J	Conclusions	E 7
REFERENC	TE C		57 58
REFERENCES			J 0