

INTERNSHIP AT TRAVANCORE TITANIUM PRODUCTS LTD
KOCHUVELI, THIRUVANANTHAPURAM



Internship report submitted to University of Kerala for partial fulfillment for the requirement
of Degree of Master of Commerce

Submitted by

SONIYA SUNIL



ALL SAINTS' COLLEGE
UNIVERSITY OF KERALA
THIRUVANANTHAPURAM

APRIL 2023

CERTIFICATE

This is to certify that the report entitled “INTERNSHIP REPORT ON TRAVANCORE TITANIUM PRODUCTS LTD “ is bonafied record of internship work done by Soniya Sunil in a partial fulfillment for the award of the degree of Master of Commerce , the University of Kerala during the academic year 2023-2024 in the Department of Commerce, All Saints’ College TVM.

Signed by

Head of Department

Dr.Carvalho Faustina Cicila



DECLARATION

I do hereby declare that this report entitles “ INTERNSHIP REPORT ON TRAVANCORE TITANIUM PRODUCTS LTD” is an original work done by me in partial fulfillment of the requirements for the Degree of Master of Commerce under the University of Kerala. Also i declare that this work is not partly or wholly submitted for any other purpose and that the data included in report were collected from various sources, and true to the best of my knowledge.

Place: Kochuveli

Date:5/5/2023



Titanium

TRAVANCORE TITANIUM PRODUCTS LIMITED

(A Government of Kerala Undertaking)
THIRUVANANTHAPURAM
CIN No. U13209KL 1946SGC001214

05- 05-2023

CERTIFICATE

This is to certify that Ms. Soniya Sunil, M.Com student of All Saint's College, Trivandrum has successfully completed her Internship in Travancore Titanium Products Limited for a period of two weeks from 12-04-2023 to 26-04-2023.



[Signature]
Manager (P&A)



REGD. OFFICE : P.B. No. 1, THIRUVANANTHAPURAM - 695 021, KERALA, INDIA
Phone : 0471-2502748, 2508621, 2500221, 2500222, Fax : 0471-2502724, 2501533, 2501127
E-mail : mkting@travancoretitanium.com
Visit us on : www.travancoretitanium.com

Creating wealth from sand

ACKNOWLEDGEMENT

First of all I would like to thank my almighty God , helping me starting from the beginning to the end of my internship period..

I would also like to express my special thanks to Suresh Babu Sir (Finance Manager, TTPL) giving me a chance to spend my practice in company and helping me in my day to day activities during internship time.

I also extend my grateful thanks to other staffs who helped me in moral and material needs as well as sharing their knowledge to improve my theoretical knowledge to the real works.

I express our profound gratitude to the Head of the Department Dr.Carvalho Faustina Cicila, All Saints' College.

I wish to thank our family for the constant encouragement and blessings which value the most. I thank all my friends for their support and help. I am grateful to all the people who had helped me during the internship time

LIST OF CONTENTS

SL NO:	CONTENTS	PAGE NO
1	Introduction	6-7
2	Industry profile	8-9
3	Company profile	10-17
4	Job profile	18-22
5	Conclusion	23

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

As part of the M.com Degree program, 2 weeks internship program was conducted for learning about the practical side of the functioning of a company. The report is based on my experience as intern in TRAVANCORE TITANIUM PRODUCTS LIMITED in Thiruvananthapuram district. I started my 2 weeks internship on April 12 2023 and it ended on April 25 2023.

The TRAVANCORE TITANIUM PRODUCTS LIMITED was incorporated on 18th of December 1946 at Thiruvananthapuram district the capital of Kerala, India and it was the initiative of the then Travancore King, Sree Chithira Thirunal. Travancore Titanium Products became a State Public sector unit in 1960, with the Government of Kerala owning 97.55% of the shares. The company was promoted by His Highness Chithira Tirunal Balaramavarma Maharaja, the then ruler of the State of Travancore (now Kerala State in India) with the technical collaboration of British Titan Products or Tioxide Group Limited. Travancore titanium is one of the largest manufacturers and suppliers of Titanium Dioxide (Anatase Grade) Pigment, a crucial ingredient in the paint, rubber, textiles, plastic, cosmetics and paper industries. TTPL is contributing crore of rupees to the State exchequer by way of Sales Tax. other duties and levies.

This summer internship at Travancore Titanium was highly useful in learning about the features and functioning of the company especially finance department of the company. Finance being the lifeblood of any company is very crucial for the effective and efficient working of all the activities in an organisation.

1.2 OBJECTIVES OF INTERNSHIP

Primary objectives

- To understand various activities of the finance department.
- To study and analyze the accounts and records maintained by finance department and accounting procedures that are followed by Finance department of Travancore Titanium Products Limited.

Secondary objectives

- To know the mission, vision and corporate objectives of the company.
- To have a brief idea about the entire organisation structure and functioning of each department of the company.

1.3 SCOPE OF INTERNSHIP

The internship helped to get to know the organisation structure and understand how an organisation functions. It really helped me to gain a practical knowledge about how a company functions in reality. Through this I learnt theoretical and practical application of accounting procedures of the company. This internship is very helpful in sharpening my existing skills and gaining new skills.

1.4 INTERNSHIP DETAILS

The internship entitled "An internship at Travancore Titanium Products Limited" was for a period of 2 weeks from 12 April 2023 to 25 April 2023. The internship mainly focuses on the working of finance department and functioning of other departments in Travancore Titanium Products.

1.5 DAILY SCHEDULE

The normal working hours of TTPL company is from 9 am to 4 pm from Monday to Friday. Saturday working time is from 9 am to 12 pm. The reporting time for internship trainees was 9.30 am. The interns are relieved from duty by 12.30 pm.

CHAPTER 2

INDUSTRY PROFILE

2.1 INDUSTRY PROFILE

Titanium dioxide is a titanium oxide with the formula TiO_2 . A naturally occurring oxide sources from ilmenite, rutile and Anatase. It is a white solid that is insoluble in water. As a pigment, it has wide range of applications, including paint, sunscreen and food colouring. In its natural state it exists in different bulk crystalline form.

In the pharmaceutical industry, titanium dioxide is used in most sunscreens to block UVA and UVB rays. It is also commonly used as pigment for pharmaceutical products such as gelatin capsules, tablet coatings and syrups. Titanium dioxide is seeing growing demand in photo catalysts. As a photo catalyst, it can improve the efficiency of electrolytically splitting water into hydrogen and oxygen, and it can produce electricity in nanoparticle form. Paints and varnishes manufacturing industry is the leading consumer of titanium dioxide in India. Paint is one of the mostly used building materials in constructions, furniture, automotive and other industries. Strong growth in construction and automotive industries in India is the major factor propeling demand for titanium dioxide pigments in paints and coatings production industry. The global titanium dioxide (TiO_2) market size was valued at USD 13.3 billion in 2015. The global titanium dioxide (TiO_2) market size was valued at USD 13,3 billion in 2015. The market is expected to witness growth over 8.9% from 2016 to 2025, owing to increasing demand from end-user. Usage of the product as pigments in paints & coatings formulation is expected to fuel industry growth over the next few years. The key raw materials used in the production of T2 are ilmenite and rutile. India has reserves of ilmenite and rutile, accounting for 35% and 18% of the total world reserves respectively, largely found in coastal regions of Tamil Nadu, Kerala, Andhra Pradesh and Odissa. In 2013-14, the production stood at around 53,000 tons with a capacity utilization of 70%, Some of the concerns in the Indian TiO_2 industry are the reduced production by manufacturers, strict environmental regulations, less exploration of reserves and the inadequate technology support.

The demand for titanium dioxide is growing at the rate of 8-10 % annually driven by the growth in the key end use segments. Paints segment is the leading end use segment accounting for 78% of the total usage of TiO_2 in India. It is also used in other segments such as plastics, paper, rubber, printing inks, enamels, detergents, pharmaceuticals, electronics and many others. Around 70% of the domestic demand for TiO_2 is met through import deliveries. China is the leading exporter of TiO_2 to India. Exports are minimal, less than 5% of the

ilmenite produced is converted into titanium dioxide while the remaining is exported. The lack of a supportive government policy coupled with other challenges such as lack of infrastructure and high cost of power are impacting the value addition of ilmenite in India.

The 4 key players in the Indian titanium dioxide industry are Kerala Minerals and Metals Limited (KMML), Travancore Titanium Products Limited (TTPL), Cochin Chemicals, Kilburn Chemicals (VVTi Pigments Ltd.) and Kolmak Chemicals Ltd. KMML and TTPL are public sector companies while Kilburn and Kolmak are privately owned. In India, KMML is the sole manufacturer of rutile-grade TiO₂. Anatase grade of TiO₂ is manufactured by Travancore Titanium Products but is way below its installed capacity, thereby forcing paint companies to import even with high import duties

2.2 TRENDS INFLUENCING THE TITANIUM DIOXIDE MARKET SIZE

The automotive industry has contributed to market expansion due to technical developments in the sector, coupled with increasing demand for lightweight vehicles. The growing use of lightweight materials for improved protection and the growing number of residential and non-residential building projects increases the demand for paints & coatings, thus boosting the titanium dioxide market size. Due to growing urbanization and industrialization, there is an increase in demand for energy in developing countries such as China, India, Indonesia and Malaysia. The growing demand for renewable energy sources is projected to significantly affect the titanium dioxide market size.

CHAPTER 3

COMPANY PROFILE

Travancore Titanium Products Limited is a public company under the state public sector, which government of kerala owing 80.94% of the share. Kerala State Industrial Development Corporation [KSIDC] holding 7.91% and the balance held by the public. The total number of employees at present is 621. With a view to improve efficiency, profitability competitiveness and maintain market leadership, TTP has proposed to expand its capacity to 27000 tons per year modernized and diversify in stages to produce both anatase and rutile grades of titanium dioxide pigment. Modernization and revamping would be carried out with minimum interruption and the new plant to this connection will be launched during the current year.

Thiruvananthapuram could find a place in the industrial map of independent India during the early 50's itself, thanks mainly to M/s Travancore Titanium Products Limited [TTP LIMITED], situated at Kochuveli on the outskirts of the city. The unit was promoted by the princely state of Travancore in 18th December 1946 in collaboration with the object of producing pigment grade titanium rich ilmenite available as placer deposit in the beach stands near quilon. It is the matter of pride that the manufacture of the rare chemical like Titanium dioxide, which was confined to highly industrialist nations of the west, was taken up here in Thiruvananthapuram decades ago by his Highness Late Sri. Chithira Thirunal BalaramaVarma Maharaja who visualize the industrialization of the kingdom by unearthing the rich mineral deposits. Till last decade TTP was only unit producing this white pigment not only in India, but also in the whole of south-east Asia.

Titanium dioxide finds use in variety of industrial products such as paints, ceramic products, plastic papers printing etc. Its extreme whiteness, perfect non toxicity and chemical in earthiness make it ideal choices a white pigment. Scattering property of finely divided titanium dioxide is unmatched by any other known material. The chemical is available in two to crystalline forms via, anatase and rutile, which are of much commercial significance. The relatively softer anatase is the right material for delustering artificial fibers. In TTP LTD, the anatase grade is produced by the conventional sulphate technology.

HISTORY OF THE COMPANY

*Travancore Titanium Products Limited [TTPL] is incorporated on 18th December, 1946 in collaboration with British Titan products limited UK for the manufacture of anatase grade titanium dioxide pigment through the sulphate route.

*The installed capacity of the plant was 1800tons per annum [i.e.] 5 tons per day.

*Through commercial operation started in 1950 the full swing production could be maintained from 1.1.1954 consequents on the central government granting tariff protection and also availing a loan.

*The management of the company was vested with the managing agency, viz., Indian titan Products Company Limited as per [this management was taken over by the state government].

*The company started its first expansion programme in 1957 for doubling the annual production capacity from 1800 to 3600 tons [5 to 10 per day-1800 tons rutile and 1800 tons anatase].

*A research development wing was set up on the company 1961.

*Industrial license for 50 tons per day expansion was obtained in July 1961; it was proposed to produce rutile and anatase grade side by side.

*Next expansion from 10 to 18 tons per day completed in October 1963. However the rutile production was temporarily discontinued in 1963.

*Government approved the expansion programme for producing 50 tons per day in 1967.

*The expansion programme to 24500 tons per annum including plant and equipments for the production of coated rutile grade was completed in 1973. The installed capacity after the expansion was as follows:

Old plant : 6500 tons

New plant : 18000 tons

*As the capacity utilization was very low a committee appointed subsequently by the Government viz., Dr.Vazir committee assessed the achieved capacity of the plant as 15000 tons per annum of Anatase grade pigment.

*The resource mobilization policy committee set up in1974 by the state planning board recommended for formation of sole selling agency for the sale of products of government companies. Accordingly the Kerala State Industrial Products Trading Corporation [KSIPTC] was formed in the year 1976.

*KSIPTC was appointed as the sole selling agents with effects from 1st March 1979. Marketing of titanium dioxide is now done by TTPL itself.

*The DCDA project started in 1980 was commissioned in June 1984.

*Installation of 1000 KVA generator was installed and a 66 KV substation commissioned.

*Order for constructing a new 300 tons per day sulphuric to M/S DMCC on 21.10.1993 at a cost of Rs.24.42 crores. The plant was commissioned on 29th March 1996.

VISION OF TTP LTD

To be the largest producer of Titanium Dioxide Products and the most preferred supplier

MISSION OF TTP LTD




“To ensure customer satisfaction through continues improvement of processes, products and human resources and by providing effective service”.

QUALITY OBJECTIVES

- Customer satisfaction
- Continues improvement of process and product
- Human Resource Development
- Better and safe working environment

CORPRATE OBJECTIVES

The objectives of the company established in India to do all or any of the following things:

-  To promote the production and use of titanium, zinc, lead and other metals or their compounds, derivations and alloys and in particular titanium pigments, composite pigments and all other pigments.
-  To carry in all kinds of research work incidental or relating to the production and use titanium, zinc, lead and other metals and their alloys and compounds and prepare for market all such articles and other things generally to carry on all kinds of metallurgical operations.
-  To carry on the business manufacturing chemicals and of manufacturers, producers of and dealers in sulphuric acid and other acids, alkalis and chemicals and substance of every description.

ECO-FRIENDLY

Travancore titanium products are one of the very companies in India to have installed an electrostatic precipitator way back in 1951 itself to control particulate matter emission.

BOARD OF DIRECTORS OF TTP LTD

- ☐ Chairman and Managing Director
- ☐ Executive Director
- ☐ Director – [Additional sector in finance department of Kerala Government]
- ☐ Director – [9 Member of Legislative Assembly]
- ☐ Director – [Special security to Industries Department of Kerala Government]

QUALITY POLICY

To achieve customer satisfaction by effectively managing resources and delivering Titanium related products through continual improvement of quality management system.

QUALITY OBJECTS

- ❖ Customer Satisfaction
- ❖ Effectively managing resources
- ❖ Continual improvement

CORPORATE OBJECTIVES

The objects of the company are established are:

In India to do all or any of the following things:-

- ❖ To promote the production and use of titanium, zinc, lead and other metals or their compounds, derivations and alloys and in particular titanium pigments, composite pigments and all other pigments.
- ❖ To carry in all kinds of research work incidental or relating to the production and use of titanium, zinc, lead and other metals and their alloys and compounds and prepare for market all such articles and other things generally to carry on all kinds of metallurgical operations.

DEPARTMENTS

PRODUCTION DEPARTMENT

For the manufacturing of Titanium dioxide the raw materials used is Ilmenite. This raw material is brought from Chavara, Manavalakurichi and from Orissa. About 54% of ilmenite contains TiO_2 can be produced by conventional methods like Chloride and Sulphate process, the method adopted in TTP is Sulphate process.

FUNCTIONS

- Prepare a plan regarding the effective utilization of raw material.
- Ensure that quality is strictly followed in the production process.
- Determining the production targets.
- Periodic meeting of production managers to review their performance.
- Ensure implementation of safety measures in the equipment's and avoid danger to men and equipment.

ENGINEERING DEPARTMENT

It is responsible for installation of the factory structure which includes plant and machinery, Office equipments and their maintenance and up keep to the optimum production levels of TTP. There are 4 main sections under engineering department .They are:

- Mechanical
- Electrical
- Civil
- Instrumentation.

HUMAN RESOURCE DEPARTMENT

Personal department is responsible for the administration of the human factor in the organisation and aims at putting opportunity for human resource into effective use and provides opportunity for maximum individual. The Human Resource Department deals with management of people within the organization. There are number of responsibilities that come with this title. First of all, the Department is responsible for hiring members to staff; this will involve attracting employees, keeping them in their positions and ensuring that they perform to expectation. Besides, the Human Resource Department also clarifies and sets day to day goals for the organization. It is responsible for organization of people in entire company and plans for future ventures and objectives involving people in the company.

FUNCTIONS

- Recruitment and selection
- Manpower planning
- Personal records of all employees
- Enter into a long term settlements with trade unions
- Analysis of promotion possibility of employees.

LEGAL DEPARTMENT









The main function of the legal department is

- a. Conduct of cases
- b. Service matters
- c. Disciplinary proceedings
- d. Financial matters

SAFETY DEPARTMENT

It came into exist in 1984. The main aim of the department is to maintain an accident free environment.

FUNCTIONS

-  Overall function of safety in the company
-  Supervision of emergency centre
-  Advisory Function
-  Lowering safety Committee meetings
-  Giving work permission
-  Plant safety inspection
-  Accident investigation
-  Report any accident to Managing Director of the company

SECURITY AND VIGILANCE DEPARTMENT

TTP Ltd has a well established security and vigilance department functioning under security superintendent and vigilance officer.

FUNCTIONS

- ❖ Receipt of material
- ❖ Inspection
- ❖ Issue and inventory control

COMMERCIAL DEPARTMENT

Purchasing of goods plays a vital role with an industrial organization. The main aim of department is to provide right material in the right time at right cost.

TRAINING DEPARTMENT

It enhances the skill aptitude and ability of workers successfully. The main function of it is to give training to employees.

1. In house Training
2. External Training

PROJECT DEPARTMENT

It is created for carrying out the project works successfully. At first identify the scope of the project then the chief manager carries out the project of the company. It also includes the plant modification and expansion.

MARKETING DEPARTMENT

The marketing does the marketing activities of the products in TTP Ltd. It conducts market research activities regards to TiO₂. TTP has opened its marketing department in 2003.

FUNCTIONS

- Maintain better customer relationship
- Develop new market and maintaining existing market
- Develop the brand image of the product,
- Conduct market research programme for analyzing needs and wants of the customer

FINANCE DEPARTMENT

Finance is the master key that provides access to all the sources for being employed in manufacturing and merchandising activities. The success of an organization largely depends on efficient management of its finances. Finance department is headed by the finance controller. The finance department is responsible for proper planning and controlling of financial resources. The department is headed by Finance Advisor. Finance controller manages and control assets and liabilities of the company. His duties include providing information to formulate accounting and costing policies, preparation of financial reports. direction of internal auditing, budgeting, taxes etc.

OBJECTIVES

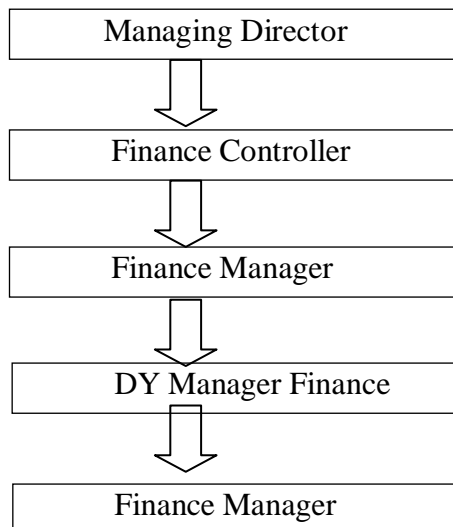
- Financial planning cost control and ensuring uniform and correct observance of financial disciplines of the company.
- Monitoring the progress of budget achievements
- Providing accounting service to all level ensuring updating of systems procedures for the same.
- Advising management on funds utilization and its implementation
- Vetting of all investment proposals, certain of new assets, new posts etc. from the point of financial feasibility.
- Evolve and audit manual. The finance department performs various functions very effectively. The main functions of this department include :
- To collect all sums due to the company in time as per sales, orders etc.
- To make timely payments to creditors, suppliers, contractors, employees, government statutory bodies, service provides etc.
- Timely dispersant of salary/wages/perks to employees as per agreement, MOU etc.
- To assist all types of audit work.
- To prepare MIS as required by management.

- To complete all budget work.
- To manage cash properly to maintain proper liquidity.
- To assist all departments in providing financial administration of all transactions

FUNCTIONS

- Prompt payment to employees as per wage agreement.
- To receive all incomes for the company in time. To ensure prompt payments to suppliers of equipments, machinery, materials, etc as per terms and conditions.
- Statutory payments like sales tax, excise duty, income tax, in time.
- To record all transactions as per statutes..
- To send returns to the government promptly.
- Ensure that there is proper cash planning by depositing surplus ones.
- Preparation of functional budget for achieving the target.
- To ensure proper audits of accounts in time.

HIERARCHY OF FINANCE DEPARTMENT



RESEARCH AND DEVELOPMENT DEPARTMENT

The company's research and development department plays an integral role in the life cycle of a product. While the department usually is separate from sales, production and other divisions, the functions of these areas are related and often require collaboration.

FUNCTIONS

- New Product Research
- Existing Product Updates

CHAPTER 4

JOB PROFILE

Day 1

Learning objectives

To understand company's revenue and expenditure and for making a comparative study out of it.

Activities

Verified company cash book, Receipt and payment account, Income and expenditure account for a financial period. Participated in the preparation of cash book, receipt and payment account, Income and expenditure account using companies past year records. Prepared company's balance sheet to know financial position of the company.

Learning outcomes

- It helped in understanding a general view concerned with profit or loss earned during particular period of time.
- A clear idea generated about the company's surplus or deficit and measures for covering losses were formulated.

Day 2

Learning objectives

Study of purchase approval and payment methods initiated by the company.

Activities

Evaluated the company's Purchase order, a commercial document and first official offer issued by a buyer to a seller, indicating types, quantities, and agreed prices for products or services. Valued Purchase invoice which indicates the goods or services that have been purchased. Detailed study of purchase procedure.

Learning outcomes

All the steps required for purchase approval and purchase procedure of the company etc understood. A purchase approval form is a document that is used by an employee to get approval for a purchase from a supervisor or management. There are mainly four methods of payment

*100% through bank

*Proforma invoice

*After receipt acceptance, 50% advance

Day 3

Learning objectives

Export import procedure of the company studied.

Activities

Export and import are major two transactions performed by a business unit. Import is considered to be main source of income of any business. As a part of it import order and RCIR was studied.

Learning outcomes

- *Learned about export import procedure of the company.
- *Import Orders are orders placed for goods that are meant to be imported.
- *RCIR or Receipt Cum Inspection Report is the proof of goods received usually generated by stores department of the company.

Day 4

Learning objectives

- To study work order of the company.
- To participate in internal audit system of the company.

Activities

Work order is the important document that specifies details of the venture to which service is allocated.

- Understood the content of work order in detail,
- Participated in audit process through the detailed verification of one purchase approval document of the company.

Learning outcomes

- Helped to learn the work order of the company that describes a job between a customer and contractor.
- An opportunity to learn how a company's internal audit system works.

Day 5

Learning objectives

- *Filing of Purchase Journal
- *Recovery of missing voucher

Activities

Purchase journals are special journals used by an organization to keep track of all the credit purchases. It is also known as Purchase book or Purchase daybook. Each file has its own range of numbers. So the main duty will be putting papers, letters, or other documents into correct file. It is required to ensure that each and every PJ should be matched with JV. Missing vouchers can be recovered through manual checking of file. The process can also be done through computerized system for saving time.

Learning outcomes

It helped in gaining knowledge of internal file management system of the company.

Day 6

Activities

Continuation of filing of documents

Day 7

Activities

Continuation of filing of document

Day 8

Learning objectives

Analysis of ledger

Activities

Checked company's Ledger accounts and made an analysis out of it.

Learning outcomes

- Ledger accounts contain all debit and credit transactions affecting firm.
- In addition, they include detailed information about each transaction, such as the date, description, amount, and may also include some descriptive information on what the transaction was.
- Without any transaction record, a company can't notice the transactions that happen in a certain period.
- It helped in understanding how a company's ledger will be analyzed in detail.

Day 9

Activities

Continuation of ledger analysis

Day 10

Activities

Continuation of ledger analysis

Day 11

Learning objectives

To study pricing of the company

Activities

Studied the cost accounts of the company

Learning outcome

- Monthly expenses is about 20,00,00,000
- Pricing is determined by the cost and the marketing condition
- 5% of the titanium dioxide will be exported
- Around 20000 tons titanium dioxide where produced per annum

Day 12

Learning objectives

To visit and understand production plant. Activities With the permission of concerned officials visited the Plant where production of Titanium Dioxide is undertaken.

Learning outcomes

- TiO_2 is produced mainly from ilmenite
- Titanium pigment is extracted by using sulphuric acid (sulphate process)
- Iron particles in ilmenite are removed with machine support.
- The ore, usually an ilmenite, is dissolved in sulphuric acid to form a mixture of sulphates. Any iron is removed from the solution so the colour of the final product is not spoiled. The titanium sulphate is then hydrolyzed in solution to give insoluble, hydrated titanium dioxide.
- The final stage Involves heating the solid in a calcite to evaporate the water and decompose the sulphuric acid in the solid. It also turns the solid into seed crystals which can be milled to the size needed. These crystals can be coated with another substance, such as aluminium oxide, to make the titanium dioxide mix more easily with liquids or extend the life the paint manufactured from them.
- Anatase pigments can only be produced by the sulphate route. The sulphate route is perceived to be less environmentally friendly but acid recycling or neutralization, combined with other by product developments, can make it clean Ilmenite, is dissolved in sulphuric acid to form a mixture of sulphates. Any iron is removed from

the solution so the colour of the final product is not spoiled. The titanium sulphate is then hydrolyzed in solution to give insoluble, hydrated titanium dioxide.

The final stage Involves heating the solid in a calcite to evaporate the water and decompose the sulphuric acid in the solid. It also turns the solid into seed crystals which can be milled to the size needed. These crystals can be coated with another substance, such as aluminium oxide, to make the titanium dioxide mix more easily with liquids or extend the life the paint manufactured from them. Anatase pigments can only be produced by the sulphate route. The sulphate route is perceived to be less environmentally friendly but acid recycling or neutralization, combined with other by product developments, can make it clean .

CHAPTER 5

CONCLUSION

The internship programme has been carried out in finance department of a production industry named Travancore Titanium Products Limited. It is an organizational study encompasses the study of organization from multiple viewpoints and different levels of analysis. It is a leading company in manufacturing sector of Titanium Dioxide. Travancore Titanium Products have long term reputation and also they have a well experienced technical experts and supporting staff for the accomplishment of the goals of the Company. This internship programme in TRAVANCORE TITANIUM Products Limited helped me to understand the various functions in an organization and how it is connected with theories studied. The study has given an insight in to the working of an organization engaged in the production process of Titanium Dioxide.

The Internship report entitled on ‘AN INTERNSHIP AT TRAVANCORE TITANIUM PRODUCTS LIMITED (TTPL) Kochuveli, Thiruvananthapuram’ helped in undertaking in-depth study of the finance department and the accounting procedure adopted by the finance department of the Travancore Titanium Products Limited. Travancore Titanium Products Limited is a well reputed company and has a common and very efficient finance department which maintains the accounts both manually as well as using the software. The finance department is further divided into sections for efficient and effective management of accounts of the organization. The functions of the Finance department are performed properly. Timely entering of all transactions is carried out well by this department and introduction of Computers in accounting procedure made it easy. The well equipped department of this company threw light to the practical aspect of financial management in corporate. An organization’s finance department is critical for running a successful that can attain financial goals.