

**COMMITTEE ON PUBLIC UNDERTAKINGS**

**(2001-2002)**

**(THIRTEENTH LOK SABHA)**

**STUDY TOUR REPORT**

**ON**

**KOCHI FEFINERIES LIMITED**

STUDY TOUR REPORT NO. 25

Laid in the Lok Sabha on 19.12.2001

Laid in the Rajya Sabha on 19.12.2001

**LOK SABHA SECRETARIAT**

**NEW DELHI**

**December, 2001 / Agrahayana 1923(S)**

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**COMPOSITION OF COMMITTEE ON PUBLIC UNDERTAKINGS**  
**(2001-2002)**

**CHAIRMAN**

Prof. Vijay Kumar Malhotra

**MEMBERS**

***LOK SABHA***

2. Shri Prasanna Acharya
3. Shri Mani Shankar Aiyar
4. Prof. S.P.Singh Baghel
5. Shri Sudip Bandyopadhyay
6. Shri Ram Tahal Chaudhary
7. Shri Ajay Singh Chautala
8. Shri Shiv Raj Singh Chauhan
9. Shrimati Sangeeta Kumari Singh Deo
10. Shri C.K. Jaffer Sharief
11. Shri K E Krishnamurthy
12. Shri Vilas Muttemwar
- \* 13. Shri C.P. Radhakrishnan
14. Shri Tarit Baran Topdar
15. Shri Dinesh Chandra Yadav

***RAJYA SABHA***

16. Shri Suresh Kalmadi
17. Shri K. Kalavenkata Rao
18. Shri Jibon Roy
19. Shri B.P.Singhal
20. Smt. Ambika Soni
21. Shri C.P.Thirunavukkarasu
22. Shri Ranjan Prasad Yadav

**SECRETARIAT**

- |    |                          |                      |
|----|--------------------------|----------------------|
| 1. | Shri John Joseph,        | Additional Secretary |
| 2. | Shri S. Bal Shekar,      | Director             |
| 3. | Shri Raj Kumar           | Under Secretary      |
| 4. | Shri Prabal Chakraborty, | Committee Officer    |

\* Elected w.e.f. 29<sup>th</sup> November, 2001 vice Shri Rajiv Pratap Rudy ceased to be Member of the Committee consequent upon his appointment as Minister w.e.f. 1.9.2001.

## **INTRODUCTION**

In pursuance of the procedure adopted under Rule 281 of the Rules of Procedure and Conduct of Business for laying the Study Tour Reports on the Tables of both the Houses of Parliament, I, Chairman, Committee on Public Undertakings have been authorised by the Committee to lay the Study Tour Report on their behalf, lay the Study Tour Report of the Committee on their discussions with the officials of Kochi Refineries Ltd.

2. The Committee held discussions with the officials at Kochi on 28.10.2001. A copy of the tour programme is annexed (Annexure-I).

3. The Committee considered and approved the Report at their sitting held on 19<sup>th</sup> March, 2002.

4. The Committee wish to express their thanks to Kochi Refineries Limited for providing facilities during the visit of the Committee and for supplying necessary material and information required in connection with the Study Tour.

5. They would also like to place on record their sense of appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

New Delhi  
18 December , 2001  
27 Agrahayana,1923(S)

**PROF. VIJAY KUMAR MALHOTRA**  
**CHAIRMAN**  
**COMMITTEE ON PUBLIC UNDERTAKINGS**

## **STUDY TOUR NOTES OF THE COMMITTEE ON PUBLIC UNDERTAKINGS**

### **DISCUSSION WITH REPRESENTATIVES OF KOCHI REFINERIES LIMITED AT KOCHI ON 28.10.01**

At the outset, the Chairman, Committee on Public Undertakings made opening remarks and requested the Chairman and Managing Director, Kochi Refineries Limited (KRL) to introduce himself and his colleagues to the Committee and also requested to give a brief account of the working of the Company.

2. After the introduction of officers of KRL, CMD informed the Committee that Cochin Refineries Limited was incorporated as a Public Limited Company in September, 1963 with technical collaboration and financial participation from Phillips Petroleum Company of USA. The name of the Company was changed to Kochi Refineries Limited (KRL) in May, 2000.

Kochi Refineries Limited commenced operation in 1966 as a 2.5 Million Tonnes Per Annum (MMTPA) refinery. The capacity was augmented in 1973 to 3.3 MMTPA and thereafter in 1984 to 4.5 MMTPA. A secondary processing facility consisting of a 1 MMTPA Fluid Catalytic Cracking Unit (FCCU) was added along with the capacity expansion carried out in 1984. KRL commenced production of aromatics in 1989 with a capacity of 87,000 Tonnes Per Annum of Benzene and 12,000 Tonnes Per Annum of Toluene. A Captive Power Plant of 21 MW capacity was installed in 1991. In 1993, the company entered into Poly Isobutenes and in 1994 commenced production of

Petroleum Hydrocarbon Solvent. The refinery was further expanded in 1994 to 7.5 MMTPA with the addition of a new 3 MMTPA Crude Distillation Unit with associated facilities. Crude Oil is brought to Cochin Port by ships. The ships' pumps pump the oil into KRL's tankages at Ambalamugal (16 Km away) through pipelines. No lorries / trucks are used.

FCCU was also revamped from 1 MMTPA to 1.4 MMTPA. A Steam Turbine Generator of 17.8 MW capacity was installed in 1998 and in the year 2000, a 2 MMTPA Diesel Hydro Desulphurisation plant was added for reduction of sulphur content in diesel from 1 wt % to 0.25 wt %.

3. When enquired about the plans for expansion of capacity of the Refinery, the Committee have been informed that KRL attained the present capacity of 7.5 MMTPA in stages. This had been done by retrofitting additional facilities into existing ones. This cannot go on indefinitely, and is not necessarily the best way to increase capacity. Once optimum position is attained, the retrofitting, in fact, should not be done. Retrofitting also results in relatively increased energy consumption. Yields are also not optimised in this mode. Taking into consideration all aspects, presently a study for ascertaining the best configuration for capacity enhancement is on. Based on the results of the study, decisions would be taken for capacity increase.

4. The Committee have been informed that the authorised capital of the company is Rs.150 crore and the paid-up capital is Rs.138.47 crore. The Bharat Petroleum Corporation Limited (BPCL) acquired Government of India's (GoI) equity holding in KRL in March, 2001. Therefore, as on-date the

Government of India does not have any stake in KRL. About 14.30 % of the equity is with the general public (around 75,000 shareholders). A large number of employees are also the owners of the company's shares

The Shareholding Pattern of the Company as on 24.10.2001 showing the major Shareholders is given below:

Shareholders (s)	Total shares	% to Total
Bharat Petroleum Corpn. Ltd.	75889660	54.81
The Governor of Kerala	7000000	5.06
L.I.C	18539712	13.39
U.T.I	7583131	5.47
Other Insurance Companies	5733478	4.14
Nationalised & other Banks	743784	0.54
Mutual Funds	166835	0.12
KSIDC	666660	0.48
Balmer Lawrie & Co. Ltd.	200000	0.14
Employees	114700	0.08
Non-Resident Indians	132574	0.09
Foreign Institutional Investors	429824	0.31
Non Domestic Company	22100	0.02
Bodies Corporate	1270947	0.92
Indian Public	19976375	14.43
<b>Total</b>	<b>138469780</b>	<b>100.00</b>

5. It has also been informed to the Committee that the 55.04% shares held by Government of India in KRL were disinvested in favour of BPCL. These shares were transferred in the name of BPCL on 26 March 2001. With the transfer of shares, KRL has become a subsidiary of BPCL. Following this,

BPCL has nominated 5 Directors, out of the total of 10 Directors as on date, on KRL's Board. Since KRL has become a subsidiary of BPCL, and with BPCL's representation at Board level, decision making particularly in marketing of KRL's products has become more timely and conducive.

6. To a query about alignment of KRL with BPCL and its impact on the working of KRL, the Committee have been informed as under :-

"KRL has been, and is, a Stand Alone Refinery (SAR), i.e., it has only refining (manufacturing) facilities and does not have a marketing arm. With the dismantling of the Administered Pricing Mechanism (APM), and total free market scenario from April, 2002 in the country's oil sector looming large, the Government of India had constituted a Committee for restructuring the SARs. Based on the recommendations of the Committee, Gol decided to align the SARs with the Refinery and Marketing Companies. Thus KRL has become a subsidiary company of BPCL, which has a good marketing presence in the South. BPCL has a vast storage installation near to KRL refinery. Meantime, Petronet CCK Ltd., designed to transport KRL products through pipeline, and with shareholding by BPCL, KRL and others, was also set up. Thus KRL's concern in marketing, post APM, has been addressed fully. Following the transfer of the 55.04% shares held by Gol in KRL to BPCL in March, 2001, BPCL nominated 5 Directors, out of the total of 10 Directors. This is the only change in the working of KRL after it became the subsidiary of BPCL. KRL has total operational freedom. All policy and major decisions are taken by KRL Board. As far as approval of major projects (the investment of which is beyond the powers of Board), approvals can be accorded by BPCL under its Navratna status. Earlier, investment approvals for such projects had to go through a Stage I & II process applicable to PSUs. This necessarily involved considerable delay. While decision making process has become faster as stated above, there is no need for apprehension that KRL would be wound up or merged into BPCL. Therefore, the State of Kerala would not loose KRL, as apprehended by the Committee."



7. As per information furnished to the Committee, the production performance of the Company from 1996-97 to 2000-01 is given below :-

Year	Crude Oil Thruput, MMTPA		LPG Production '000TPA		Total Distillates Wt%		Fuel & Loss Wt%	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
1996-97	7.10	7.30	251	260.87	77.30	78.38	6.10	5.69
1997-98	7.50	7.73	244	279.68	77.50	77.81	6.00	5.69
1998-99	7.45	7.77	263	279.89	77.80	79.48	5.75	5.69
1999-00	7.40	7.83	270	277.73	78.30	79.44	6.20	5.62
2000-01	7.40	7.52	260	344.43	71.90	73.69	5.75	5.47

When asked how the production targets in the Company are fixed, the Committee have been informed that the production targets in the refinery are fixed on the basis of maximization of Gross Refinery Margin. The yearly targets are specified in the Oil Economy Budget and in the Memorandum of Understanding signed with the Ministry of Petroleum & Natural Gas. These annual targets are further revised and fine-tuned on a monthly basis.

The Committee also been informed that the Company has consistently performed well above the installed capacity. This is evidenced by the fact that for the last 13 years and ever since the MOU system of performance monitoring was introduced in 1991-92, the Company has consistently exceeded the production targets specified in the MOU. However, for the present year, the refinery operations, which are based on maximization of Gross Refinery Margin may not necessarily support maximization of production. The production can be increased to exceed the installed capacity

depending upon economics. The Company has also initiated action for carrying out a configuration study for enhancing the crude oil refining capacity commensurate with product demand projections.

8. About the cost of production, it has been informed to the Committee that the Company compares well with even international refineries, except in areas like manpower / administration. Since the Company's assets are 'depreciated & updated', and with reduced crude freight after the crude receipt facilities referred above, the Company's products should be competitively priced, to face the competition in the post – Administered Pricing Mechanism era.

9. About the marketing activities, the Committee have been informed that consequent to Bharat Petroleum Corporation Ltd. (BPCL) acquiring Government of India's stake in KRL, the controlled and decontrolled products are marketed by BPCL. The free trade products are directly marketed by Kochi Refineries Ltd. Also, a part of the decontrolled products such as FO, LSHS, Naphtha and Bitumen, which are sold to designated customers, are jointly marketed by BPCL and KRL.

The free trade products directly marketed by the Company are Benzene, Toluene, Mineral Turpentine Oil (MTO), Special Boiling Point Spirit (SBPS), Sulphur, Poly Isobutenes and Petroleum Sludge.

10. The financial performance of the Company during the last five years is as follows :-

(Rupees in Crore)

<b>Year</b>	<b>Turnover</b>	<b>Profit After Tax (PAT)</b>
1996-97	3918	93
1997-98	4374	220
1998-99	4171	338
1999-00	5768	235
2000-01	7136	109

11. It was pointed that there has been increase in turnover during 1999-2000 and 2000-01 in comparison to 1998-99 but there is decline in profits during 1999-2000 and 2000-01 as compared to 1998-99. When asked about the reasons for decline in profits during 1999-2000 and 2000-01 the Committee have been informed that profits during any financial year will depend on crude oil prices and the relative realisation in terms of product prices. While average realisation per metric tonne of product sold increased by about 40% in 1999-2000, as compared to the previous year, the average cost of crude consumed went up by about 51% leading to a situation where although turnover increased, there was no actual increase in profits. Additionally the profits for the financial year 1998-99 incorporated an income of Rs.74 crore relating to the earlier period.

With reference to the financial year 2000-2001, while average realisation per metric tonne of products had increased, the Company had to bear entire operating expenses, financing cost and depreciation on its DHDS unit (which was commissioned in March 2000) to the tune of about Rs.200 crore which, however, did not contribute any additional revenue.

The Committee have further been informed that the following steps have been taken by the Company to enhance the profitability (a) selection of crude oil based on netback; (b) optimum inventory holding; (c) cost control measures including freight saving on crude transportation; (d) technology upgradation; and (e) reduction of plant fuel and loss.

12. It was pointed out that there was a steep rise in crude oil prices in September – November last year in the international market. When enquired whether there was any effect of it on the physical and financial performances of the Company, it has been informed to the Committee as follows :-

“Around 80% of the crude is purchased under term contracts with National Oil Companies. Hence sporadic increase in price did not affect the Company since the monthly average price is considered for lifting crude against national oil company contracts. Further, the refinery had a turnaround during October, 2000, which resulted in lower thrupt during the time when price was higher.”

13. As per the information furnished to the Committee, the following projects have been installed / commissioned by the Company during the last decade :

Project	Installed/ Commissioned	Cost (Rs. in Crore)
Light Ends Feed Preparation Unit for Polybutenes	Mar 1993	14
3 MMTPA Capacity Expansion Project	Dec 1994	473
Visbreaker Modernisation	Mar 1997	39.30
Stand Alone Water Supply Project	Apr 2001	52
Diesel Hydro Desulphurisation Project (DHDS)	Mar 2000	852
Enhancement of LPG Recovery	May 2001	58.50

About funding of projects, the Committee have been informed that the funding for the above projects are met from Internal Resources and Loans from Oil Industry Development Board (OIDB). The OIDB loans taken for these projects are Rs.901.21 crore. The balance of Rs.584.44 crore is out of Internal Resources.

14. The Committee have further been informed that the following major projects are under implementation :

### **Additional Reactor For DHDS**

An additional reactor with associated facilities is being put up in the DHDS unit for reducing the sulphur content in 2.3 MMTPA of High Speed Diesel to 0.05 wt %. The project cost is Rs. 28.36 Crore with completion scheduled for May 2002. Heavy investment in plant and facilities for de-sulphurising diesel increased operating cost with no significant increase in revenue. This has eroded Company's profitability.

### **Cochin-Karur Products Pipeline Project**

Presently bulk of the products are moved by tank trucks and tank wagons and the balance by ocean tankers and pipeline transfers. In order to ensure safer and more economic transportation of products, the Company is participating in the equity of the Joint Venture Company, Petronet CCK Limited, promoted by Petronet India Limited, for implementing a cross-country product pipeline connecting Kochi, Coimbatore and Karur. The multi-product pipeline will have an ultimate capacity of 4 MMTPA and is expected to be completed during the year 2001-02. The pipeline is being set up in Kochi fed area and therefore products transported would be predominantly sourced from the company. The estimated capital cost of the project is Rs. 535 crore. KRL's share of the equity is 23 percent amounting to Rs. 31 crore.

15. The Committee have also been informed that the Company is developing a detailed proposal for setting up crude oil receipt facilities. This proposal when implemented, would enable receipt of larger crude oil parcels thus reducing the cost incurred on crude oil transportation /receipt. Detailed Feasibility Report (DFR) is under preparation with the assistance of Engineers India Ltd. as consultant. The DFR is expected to be completed in March 2002. Funds for the project are proposed to be mobilised in the ratio of debts (65%) and Internal Resources (35%). It is estimated that there will be savings to the tune of about Rs.200 crore for the existing refinery of 7.5 MMT. The savings is expected in the form of lower freight and wharfage.

16. About the **Auto Fuel Quality Upgradation project**, the Committee have been informed that there are reports that Government of India is going to upgrade quality of auto fuels to Euro-III standards. The Company's investment for this is expected to be approximately Rs.1000 crore. This investment is totally non-remunerative as product prices would be at import parity levels. Along with the announcement regarding quality, unless Government of India announces any cash incentives for environmental schemes such as tax subsidy, interest free loans, etc. as is the practice even in developed countries, this investment would be a heavy burden.

17. Regarding the **Stand Alone Water Supply Project (SWSS)**, the Committee have been informed that in May 1998, Government of Kerala had permitted KRL to set up a Stand-alone Water Supply Scheme for withdrawing 16.3 MGD of water from the Periyar River effective the year 2001. Based on the aforesaid, work on the SWSS was started in December 1998, and the SWSS was commissioned in April 2001. In May 2000, Government of Kerala issued an amendment order to the earlier order, restricting the Company to abstract only 2.2 MGD of water from Periyar River against the earlier approval for 16.3 MGD. The Company appealed to Government of Kerala to reinstate the allocation of 16.3 MGD of water. Government of Kerala has appointed an Expert Committee to study the availability of water in Periyar River. The Expert Committee is scheduled to submit its preliminary report by December 2001 and the final report by September, 2002, based on which the quantity of

water that could be drawn by the Company from Periyar River would be decided.

18. The expenditure incurred on R&D activities by the Company during the last 5 years from 1996-97 to 2000-01 is given below :-

Year	Expenditure for R&D activities (Rs.in Crore)	Percentage of Total Expenditure *
1996-97	2.11	1.18
1997-98	1.73	0.73
1998-99	1.08	0.41
1999-00	2.10	0.67
2000-01	1.69	0.41

\* Excludes cost of crude oil

19. About the R&D activities, the Committee have been informed that R&D is an integral part of the Refinery and the major activities being carried out and the distinctions achieved are given below :-

- R&D carries out crude oil assays, which are beneficial for crude oil selection and optimizing the plant yields ;
- FCCU Pilot Plant in the R&D helps for catalyst evaluation and selection. KRL procure catalyst for the FCCU operation, costing around Rs.10 crore per year ;
- FCCU Pilot Plant also helps to optimize FCCU Plant operations and the yields ; and
- R&D Centre which was set up in May, 1998 had developed value added products viz. Special Boiling Point Spirit and Rubber Spray Oil.

The Committee have further been informed that the latest addition to the chain of value added products is the development of rubberised bitumen. Rubberised bitumen has far superior qualities compared to the ordinary



bitumen in terms of elastic recovery, skid resistance and resistance to temperature variations. Roads surfaced with rubberised bitumen provide atleast 50% more service life than the ordinary bitumen and the cost is only around 13% more (Rs.1000/tonne) than the ordinary bitumen.

It has also been informed to the Committee that the Company had developed a catalyst for De-sulphurisation of fuel gas in collaboration with Indian Institute of Petroleum, Dehradun. Patent application is pending with the Government. Besides, the R&D activities in the oil sector are being carried out by national entity like Indian Institute of Petroleum (IIP), Dehradun.

20. Against the sanctioned strength of 2156 employees, the actual strength of the Company as on 1<sup>st</sup> October, 2001 was 2021 (Supervisory Staff – 592 and Workmen - 1429). In 1993, as part of the capacity expansion of the Refinery from 4.5 MMTPA to 7.5 MMTPA, a manpower study was conducted by engaging National Institute of Industrial Engineering (NITIE), Bombay. The optimum manpower requirements suggested by NITIE was taken into consideration for arriving manpower for the enhanced capacity of the plant. The Company had commissioned the Diesel Hydro De-Sulphurization (DHDS) Plant in March 2000.

Taking into consideration the fast changing business scenario due to liberalization and to enhance productivity, the Company has now awarded a manpower study to NITIE, Bombay, to ascertain the optimum manpower required to handle the existing operations/business of the Refinery and the study is expected to be completed by 31.12.2001.

21. On the question of introduction of VRS in the Company, the Committee have been informed that based on the outcome of the proposed manpower study, which is scheduled to be completed by 31.12.2001, the Company is planning to introduce a VRS to remove the excess manpower, if any, and the surplus manpower which may arise on implementation of Integration Refinery Information System (IRIS) and commissioning of Kochi-Karur product pipe line.

22. On the question of cost control on administrative expenditure, the Committee have been informed that 92% of the cost is accounted by crude oil. Taxes, interest and depreciation add another 6%. Thus 98% of the cost is practically non-controllable. The remaining 2% is towards utilities (catalyst, steam, etc.), Manpower, Administration, etc. Room for substantial improvement by way of cost reduction therefore is limited. However, once the crude receipt facilities referred above are implemented, the saving even on the present 7.5 MMTPA basis, is expected to be of the order of Rs.200 crore per annum. All out efforts are on hand to control the costs on administrative expenditure on a continuous basis.

23. The number of mandays lost due to strikes during the last 3 years is given below :-

<b>Year</b>	<b>Total Mandays Available</b>	<b>Man days Lost</b>	<b>Percentage of Mandays lost</b>	<b>Reason for the strike</b>
1998-1999	4,69,792	271	0.057	Strike by Cochin Refineries Workers' Association (CRWA) in response to call by Central Petroleum Sector Trade Union (CPSTU) to protest against the policies of Central Govt.
1999-2000	4,84,176	302	0.062	Strike by Cochin Refineries Officers' Association (CROA)*
2000-2001	5,07,428	400	0.079	Strike by Cochin Refineries Workers' Association (CRWA) in response to call by LDF to protest against the policies of Central Government.

\*(in line with the strike call given by Oil Sector Officers Association on All India basis)

24. When asked what efforts have been made by the Committee to maintain harmonious relations with the employees, the Committee have been informed that the Company is maintaining a very cordial relationship with the two recognized trade unions functioning in the company. The Company also conduct fortnightly meetings with the trade union representatives to discuss matters of mutual interest and settle the issues amicably. The Company enter into periodical long-term settlements with the trade unions to revise the wages and related benefits of workmen. The last wage settlement expired on 31.07.1998 and discussions on the revision of next wage settlement are in the

advanced stage. It is proposed to sign a new wage settlement of 10 years duration from 1.8.1998 to 31.07.2008.

25. Asked about the steps taken to provide industrial safety environment for the workers, it has been informed that the Company has state-of-art technology for plant operation. Process unit operations are computerised. Safety shut down systems are provided to ensure safe shut down of the unit in case of an emergency. Automatic tank gauging system is provided for monitoring storage tanks. Hydrocarbon sensors are installed at critical locations to detect leaks as and when they occur. The Company has installed 338 gas monitors, 800 smoke and heat detectors and 186 fire call points at various locations to warn off any untoward situations. Besides, operating manuals exploring methods of safe and efficient operation of plants are prepared and distributed to operating personnel. These manuals are updated every year. Detailed manuals are kept in the control rooms and abridged versions are prepared as pocket books and distributed to operating personnel for ready reference.

It has also been informed that Safety Audits are conducted every year by a multidisciplinary team constituted internally. Apart from internal safety audits, external safety audits are conducted and recommendations are implemented. Regular Oil Industry Safety Directorate (OISD) external audits are conducted every two years and surprise audits are conducted every year.

To propagate safety among all levels and to utilise the observation of all personnel, safety committees are functioning at three levels. Departmental

Safety Committee, Joint Safety Committee and Central Safety Committee are the three committees that functions. To ensure all the recommendations regarding the safety are implemented on schedule, periodic reviews are done at departmental, joint and central safety committees and also at Director's level. Approval from the Board is required for non-implementation of any OISD recommendation.

26. About the disinvestment / privatisation of the public sector companies, it has been informed to the Committee that privatisation of public sector companies will facilitate greater operational flexibility. This will enable these companies to take faster decisions and exploit market opportunities. This will also facilitate a better deal for the stake-holders.

Elucidating further about disinvestment / privatisation, the Committee have been informed that faster decision making is possible in Private Sector, essentially on account of the fact that that Sector need not go through the procedural requirements applicable to PSUs (e.g. Stage I – II modes for major investment approvals, etc.). It was explained to the Committee that the procedure in brief for PSUs to obtain investment approval for major project is:

The proposal is divided into two parts, Stage-I and Stage-II. Stage-I involves approval of the PSU's Board for the proposal in general followed by:

- Board approval for incurring expenditure for preparation of a detailed Feasibility Report (DFR),
- Seek Administrative Ministry's approval for the above, and
- Seek approval of the Committee of Secretaries (CoS).

Almost one and a half years would be needed for the above. Once the approval of CoS is obtained, further procedure in brief, for obtaining investment approval is as follows:

- Get ready the DFR,
- Board approval for DFR, the amount needed for the project, and for seeking approvals of Competent Authority ;
- Seek Administrative Ministry's approval for above ;
- Seek clearance of PIB for above ; and
- Seek approval of the Cabinet Committee.

The Stage-II would also take nearly one and a half years.

27. When enquired about the steps taken to ensure pollution free environment in and around the project sites, the Committee have been informed that the Company has well equipped facilities to ensure that the treated effluent water and the stack emissions meet environmental norms. Stacks of all heaters and boilers in the refinery are provided with online analysers. All new heaters and boilers installed as part of new projects in the Company are provided with low emission burners. Class A & B products are stored in floating roof tanks to reduce product emission. Also, the seals are being progressively replaced with double seals to further reduce the emission. Three automatic continuous ambient air quality monitoring stations are installed at three peripheral locations of the refinery and the ambient air quality is continuously monitored.

Due attention is paid to develop greenery around the refinery and a number of tree plantation drives have been conducted. As per the tree census carried out in March, 2001, there are 39,538 numbers of full-grown trees in the Company's premises.

The Company's emission and effluents meet the MINAS standards. It is to be noted that the Company was the first industry in Kerala, who was permitted by the State Pollution Control Board to discharge treated water into inland rivers.

28. About the sports activities, the Committee have been informed that the Company imparts frequently coaching in Cricket, Tennis, Volley Ball, Shuttle Badminton, etc. It helps in conducting tournaments in these sports as well as athletics. It has a Volley Ball Team, which is a premier one in the State. In fact, the Company's Team is the present State Champions. The Company's Volleyball Team's four players are State level players also.

## **RECOMMENDATIONS / OBSERVATIONS OF THE COMMITTEE**

### **RECOMMENDATION NO. 1**

#### **NEED TO PLAN FOR CAPACITY EXPANSION**

The Committee note that Kochi Refineries Limited (KRL) has attained present installed capacity of 7.5 MMTPA in stages. The increase has been attained by retrofitting additional facilities into the existing ones. The Committee understand that retrofitting is not the economical method to be used for increasing the installed capacity in the refineries, as retrofitting also results in relatively increased energy consumption. Besides this, the final yields cannot be fully optimised by using the retrofitting technique. Therefore, it is high time that the Government took up the matter of ascertaining the best configuration for capacity enhancement which would be commercially prudent. The Committee in this regard recommend that necessary studies for a proper capacity enhancement should be urgently taken up and based on the results of the studies, appropriate decisions should be taken for implementation of the capacity expansion programme. The Committee desire that this matter should be accorded the highest priority to be executed within a short and definite time frame.



## **RECOMMENDATION NO. 2**

### **ECONOMIC SINGLE BUOY MOORING SYSTEM FOR CRUDE RECEIPTS**

The Committee note that the cost of production in KRL can be significantly brought down, if a Single Buoy Mooring (SBM) System with associated facilities for crude receipts is established. At present, the cost incurred per tonne for crude oil transport from the oil tanker ships to the Refineries is very high. Right now, vessels carrying crude oil beyond 60,000 tonnes cannot come into the Cochin Port Trust in view of the limitations of depth of water in the Cochin Channel in the Cochin Port. Therefore, crude oil can be imported for KRL only by engaging vessels of smaller capacity and it results in higher freight charges. The Committee note that refineries in other parts of the country get their crude imports in larger vessels of 1.5 lakh to 2 lakh tonnes at a time which gives them greater cost advantage. The Committee understand that if about Rs. 700 crore are invested in setting up a Single Buoy Mooring (SBM) System with associated facilities, crude oil can be imported by using larger vessels from which SBM System can transport the crude straight from the ship to the shore. By adopting this system, the Company will be able to save Rs. 200 crore per annum for transport of the crude oil from the ship to the shore and then on to the Refinery. The Committee, therefore, recommend that this Project for setting up the SBM System with associated facilities should be undertaken according the highest priority to the matter.

### **RECOMMENDATION NO. 3**

#### **TAX INCENTIVES FOR AUTO FUEL QUALITY UPGRADATION PROJECT.**

The Committee note that KRL would need funds to the extent of Rs. 1000 crore to implement the Auto Fuel Quality Upgradation Project so that the quality of its products conform to the Euro II/III Standards, which are expected to come into force by 2004-05. The Committee understand that this investment will not lead to corresponding increase in the sale prices of the upgraded fuels and may thus be not remunerative and the product prices would be at import parity levels only in the future. The Committee, therefore, recommend that the Government of India should provide suitable cash/tax incentives for introduction of this kind of environmental friendly schemes through appropriate tax subsidy and interest-free loans and such other measures as are made available in many of the developed countries, so that the heavy burden on the company through this investment is lightened.

#### **RECOMMENDATION NO. 4**

##### **NEED FOR AMICABLE SOLUTION ON STAND ALONE WATER SUPPLY SCHEME FOR KOCHI REFINERIES LTD. FROM PERIYAR RIVER, KERALA**

The Committee note that Government of Kerala (GoK) permitted KRL to set up a Stand Alone Water Supply Scheme (SWSS) for withdrawing 16.3 MGD of water from Periyar River effective from the year 2001 to meet the Company's water requirement. Based on the aforesaid offer, work on the SWSS was started in December, 1998 and the SWSS was commissioned in April, 2001. The capital cost of this project was Rs.52 crore. In May, 2000, the Government of Kerala issued an amendment order to the earlier order, restricting KRL to abstract only 2.2 MGD of water from Periyar River against the earlier approval for 16.3 MGD of water. KRL appealed to the State Government to re-instate the allocation to the earlier level of 16.3 MGD of water. The Committee note that the State Government has appointed an Expert Committee to study the availability of water in Periyar River. The Expert Committee is scheduled to submit its preliminary report by December, 2001 and the final report is expected by September, 2002, based on which the quantity of water that could be drawn by KRL from Periyar River would be decided. The Committee recommend that the Government of India should take up this matter with the State Government at the highest level to ensure that the original commitment on the part of the State Government is honoured as a special case in view of the fact that

**already the scheme has been completed and commissioned and huge funds have already been spent.**

**ANNEXURE - I**

**TOUR PROGRAMME OF THE COMMITTEE ON  
PUBLIC UNDERTAKINGS TO KOCHI AND THIRUVANANTHAPURAM  
FROM 27<sup>TH</sup> TO 30<sup>TH</sup> OCTOBER, 2001 AS ACTUALLY PERFORMED**

( MEMBERS ASSEMBLED AT KOCHI )

DATE & DAY	TIME	VISIT & DISCUSSION
27.10.2001 (Saturday)	1630 hrs	Discussion with the Officers of Cochin Shipyard Ltd.
		( NIGHT HALT AT KOCHI )
28.10.2001 (Sunday)	0900 hrs	Discussion with the Officers of Fertilizers and Chemicals (Travancore) Ltd.
	1100 hrs	Discussion with the Officers of Kochi Refineries Ltd.
		( NIGHT HALT AT KOCHI )
29.10.2001 (Monday)	1000 hrs	Departure for Thiruvananthapuram by IC-803 (1135 hrs)
	1205 hrs	Arrival Thiruvananthapuram
		( NIGHT HALT AT THIRUVANANTHAPURAM )
30.10.2001 (Tuesday)	0930 hrs	Discussion with the Officers of Hindustan Latex Ltd.
	1130 hrs	Discussion with the Officers of Hindustan Newsprint Ltd.

**DISPERSAL**

## ANNEXURE – II

### COMPOSITION OF THE COMMITTEE ON PUBLIC UNDERTAKINGS WHICH VISITED KOCHI AND THIRUVANANTHAPURAM

<b>S. NO.</b>	<b>NAME</b>	<b>DATE OF JOINING</b>	<b>DATE OF LEAVING</b>
1.	Prof Vijay Kumar Malhotra, Chairman	27.10.2001 Kochi	29.10.2001 Kochi
2.	Shri Prasanna Acharya	26.10.2001 Kochi	31.10.2001 Thiruvananthapuram
3.	Prof. S. P. Singh Baghel	30.10.2001 Thiruvananthapuram	30.10.2001 Thiruvananthapuram
4.	Shri Ram Tahal Chaudhary	27.10.2001 Kochi	30.10.2001 Thiruvananthapuram
5.	Smt Sangeeta Kumari Singh Deo	28.10.2001 Kochi	31.10.2001 Thiruvananthapuram
6.	Shri Tarit Baran Topdar	27.10.2001 Kochi	30.10.2001 Thiruvananthapuram
7.	Shri Jibon Roy	27.10.2001 Kochi	29.10.2001 Kochi
8.	Smt Ambika Soni	27.10.2001 Kochi	29.10.2001 Kochi
9.	Shri Suresh Kalmadi	28.10.2001 Kochi	31.10.2001 Thiruvananthapuram
10.	Shri Ranjan Prasad Yadav	27.10.2001 Kochi	30.10.2001 Thiruvananthapuram
11.	Shri B P Singhal	27.10.2001 Kochi	30.10.2001 Thiruvananthapuram
12.	Shri C. P. Thirunavukkarasu	26.10.2001 Kochi	28.10.2001 Kochi
	<b>SECRETARIAT</b>		
1.	Shri S Bal Shekar, Director		
2.	Shri Raj Kumar Under Secretary		
3.	Shri Prabal Chakraborty Committee Officer		

**ANNEXURE-III**

**LIST OF OFFICIALS OF KOCHI REFINERIES LIMITED WHO WERE PRESENT DURING DISCUSSION WITH THE COMMITTEE ON PUBLIC UNDERTAKINGS AT KOCHI ON 26.10.2001**

1. **Shri K.L.Kumar, Chairman and Managing Director**
2. **Shri Koshy Varghese, Director (Refineries)**
3. **Shri B K Menon, Director (Finance)**
4. **Shri M.A.Mohammed Ali, ED (P)**
5. **Shri N.Sivakumar, ED(HF)**
6. **Shri N. Nandakumaran, General Manager (O)**
7. **Dr. M.A. Siddiqui, General Manager (T&D)**
8. **Shri Cherian N Punnoose, General Manager (F&A)**
9. **Shri N.Viswakumar, Company Secretary**