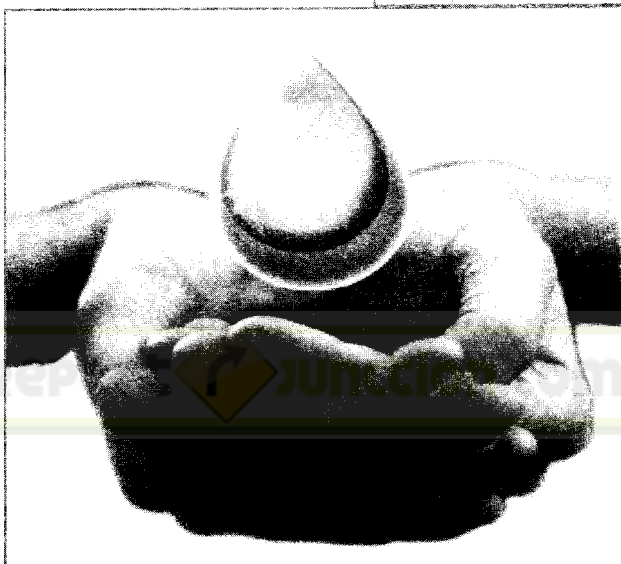
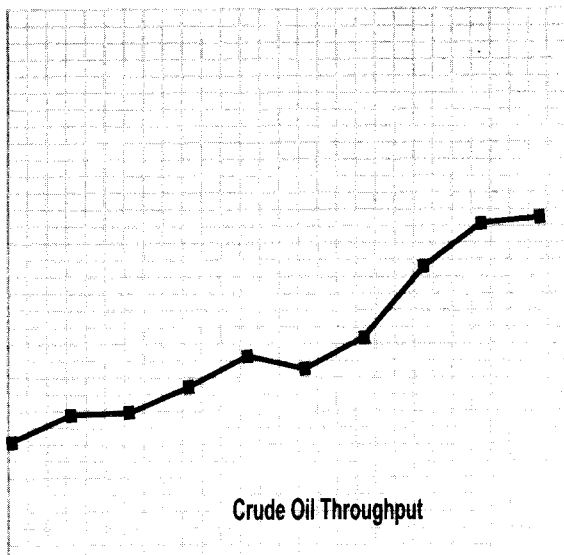




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*A Decade of Excellence*



**alore Refinery and  
ochemicals Ltd.**  
(of Oil and Natural Gas Corporation Limited)

**18<sup>th</sup> Annual Report 2005-2006**



# Mangalore Refinery and Petrochemicals Limited

## 18th Annual Report

### BOARD OF DIRECTORS

Shri Subir Raha	Chairman (Up to 24 <sup>th</sup> May, 2006)
Shri R. S. Sharma	Chairman (From 30 <sup>th</sup> May, 2006)
Dr. A. K. Balyan	
Shri N. K. Mitra	
Shri Sunjoy Joshi	Government Director (Up to 31 <sup>st</sup> July, 2006)
Shri Prabh Das	Government Director (From 2 <sup>nd</sup> June, 2006)
Shri V. P. Joy	Government Director (Up to 17 <sup>th</sup> February, 2006)
Shri Arun Balakrishnan	(Up to 13 <sup>th</sup> July, 2006)
Shri C. N. Rao	(Up to 1 <sup>st</sup> September, 2005)
Shri S. Roy Choudhury	(From 1 <sup>st</sup> September, 2005)
Shri M. P. Modi	Nominee of ICICI Bank Ltd. (Up to 17 <sup>th</sup> July, 2006)
Shri G. M. Ramamurthy	Nominee of IDBI Bank Ltd.
Shri Girish M. Dave	(Up to 26 <sup>th</sup> July, 2006)
Shri R. Rajamani	Managing Director (From 27 <sup>th</sup> April, 2006)
Shri L. K. Gupta	Director (Finance) (From 12 <sup>th</sup> May, 2006)

### VICE PRESIDENT (FINANCE) & COMPANY SECRETARY

Shri L. K. Gupta (Up to 12<sup>th</sup> May, 2006)  
 Shri Dinesh Mishra, (Company Secretary - Officiating, from 5<sup>th</sup> June, 2006)

### REGISTERED OFFICE AND REFINERY SITE

Mudapadav, Kuthethoor P.O. Via Katipalla,  
 Mangalore - 575 030, Karnataka  
 Tel. No.: 0824-2270400  
 Website: www.mrpl.co.in

### AUDITORS

M/s. Varma & Varma, Chartered Accountants

### SOLICITORS

M/s. Mulla & Mulla & Craigie Blunt & Caroe

### INVESTOR RELATIONS CELL

Maker Tower, 'F' wing, 16<sup>th</sup> Floor,  
 Cuffe Parade, Mumbai - 400 005.  
 E-mail : investor@mrplindia.com  
 Tel : 022-2217 3000, Fax : 022-22173233

### BANKERS

State Bank of India,  
 Canara Bank,  
 Punjab National Bank,  
 Bank of Baroda,  
 Corporation Bank,  
 United Bank of India,  
 Citibank N.A.

### REGISTRAR AND TRANSFER AGENTS

MCS Limited,  
 Harmony, 1<sup>st</sup> Floor, Sector - 1, Khanda Colony,  
 New Panvel (West), Dist : Raigad,  
 Maharashtra, Pin - 410 206  
 Tel. No.: 2749 2003 - 10  
 E-mail: mcsmum@bom2.vsnl.net.in

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# Mangalore Refinery and Petrochemicals Limited

## DIRECTORS' REPORT FOR THE FINANCIAL YEAR 2005 - 2006

Dear Members,

1. Your Directors are pleased to present the 18<sup>th</sup> Annual Report of the Company, together with the audited accounts for the financial year ended 31<sup>st</sup> March, 2006.

It is a matter of great satisfaction that operational performance of your Company has reached new heights of excellence during the year under review:

- Highest-ever capacity utilisation of 125% - which is also the highest among all refineries in India
- Lowest-energy consumption among all refineries with similar complexity in India
- Highest-ever turnover of Rs. 28,243 crore and the highest-ever export earnings of Rs. 11,917 crore
- Lowest-ever Interest & Finance cost of Rs. 188 crore; the long term debt-equity ratio further improved to 0.87:1
- Safety record: 843 days of reportable accident-free days as on 31<sup>st</sup> March, 2006 (972 days as on 8<sup>th</sup> August, 2006)

### 1.1 FINANCIAL PERFORMANCE

	(Rs in crore)	
	Year ended 31 <sup>st</sup> March, 2006	Year ended 31 <sup>st</sup> March, 2005
Turnover	28,242.86	20,692.55
Profit before Depreciation Interest and Tax	1,190.89	2,099.16
Interest and Finance Charges	187.77	229.62
Gross Profit/(Loss) after interest but before Depreciation and Tax	1,003.12	1,869.54
Depreciation and Amortisations	380.54	408.67
Provision for wealth Tax	0.09	0.04
Current Tax	35.77	71.45
Previous Year's Tax adjustment	-	(2.85)
Deferred Tax	215.11	512.47
<b>Profit after Tax</b>	<b>371.61</b>	<b>879.76</b>
Balance of Profit/(Loss) brought forward from previous year	52.78	(627.14)
<b>Surplus available for appropriation</b>	<b>424.39</b>	<b>252.62</b>
<b>Appropriations:</b>		
Proposed dividend on Preference Shares (Rs. 9,186)	0.00	0.00
Proposed Dividend on Equity Shares	122.70	175.26
Tax on Dividend	17.21	24.58
Balance carried to Balance Sheet	284.48	52.78
<b>Total</b>	<b>424.39</b>	<b>252.62</b>

- 1.1.1 Your Company has achieved a turnover of Rs. 28,243 crore, earning a net profit of Rs. 372 crore (down from Rs. 880 crore). The reduction in the net profit can be attributed to

- (i) Discounts on products [MS, HSD, Kerosene (PDS) and LPG (Domestic)] fixed by PSU OMCs (IOC/ BPC/ HPC). The company is in active discussions with the Ministry of Petroleum & Natural Gas (MOP&NG) to seek a more equitable approach on such discounts taking into consideration that MRPL exports more than half of its production.

- (ii) Reduced product offtake (43% against 55%) by the OMCs in the domestic market, which has higher margins than exports.

### 1.2 DIVIDEND

In spite of the oil refining industry passing through very difficult times with an adverse impact on profitability and formidable market challenges, MRPL has been able to earn a net profit after tax of Rs. 371.61 crore without any extraordinary income. Taking an overall prudent view, the Board has decided to recommend a reduced dividend of 7% as against 10% in 2004-2005, on the equity shares. This is in the long term interest of the Company and of its shareholders. The dividend will absorb Rs. 122.7 crore, excluding Rs. 17.21 crore as tax on dividend.

### 1.3 OPERATIONAL PERFORMANCE

During the financial year 2005-06, the refinery processed a record throughput of 12.12 million metric tonne (MMT) crude oil achieving 125% capacity utilisation (up 2.28% from 11.85 MMT). It produced 11.34 MMT of finished products (up 2.44% from 11.07 MMT) and despatched 11.50 MMT of finished products (up 3.99% from 11.059 MMT).

### 1.4 EXPORTS

Your Company exported products (motor spirit, naphtha, reformate, HSD, ATF, VGO & FO) amounting to Rs. 11,917 crore during the year (up 92.49% from Rs. 6,191 crore). In terms of volume, exports amount to 51% of total despatches (5.86 MMT out of total despatches of 11.50 MMT).

### 1.5 MARKETING

Various initiatives taken in the area of direct marketing have started yielding results and the company has secured entry into the HSD business of some very large consumers. The direct marketing sales at Rs. 1,411 crore (Rs. 460 crore) achieved almost 207% growth during the year.

(Figures in brackets appearing in above paragraphs pertain to the previous year).

## 2. AWARDS AND RECOGNITIONS

Your Company has received the following awards and recognitions:

- (a) The Jawaharlal Nehru Centenary Award for Lowest Energy Consumption amongst PSU Refineries for the year 2004-05. This is for the second year in a row. The award is based on the annual performance of the refineries in the area of energy consumption, measured in terms of Specific Energy Consumption (MBtu/Bbl/NRGF).
- (b) Gold Award by Greentech Foundation, New Delhi for outstanding achievement in Safety Management for the year 2004-05. Your Company has already been accredited with the 5-Star Safety Rating by the British Safety Council.
- (c) Environment Excellence Award from Greentech Foundation, for the Year 2004-05.
- (d) Golden Peacock Environment Management Award for the Year 2004-05 from World Environment Foundation, New Delhi.
- (e) National Safety Award for the year 2004 from the Ministry of Labour, Government of India.
- (f) Gold Award by the Department of Industries and Commerce, Government of Karnataka for registering highest revenue earnings through exports during 2004-05. This is for the third year in a row.

## 3. IMPROVED CREDIT PROFILE

MRPL is ranked 34<sup>th</sup> on composite basis and at 8<sup>th</sup> on net sales basis amongst all Indian Companies, as per the ET 500 ranking



## 18th Annual Report

[source: ET 500 – February 2006]. It continues to enjoy "A1+" rating from ICRA, indicating highest safety for its short term borrowing programme.

### 4. INVESTMENTS / GROWTH PLANS

#### 4.1 MRPL – MANGALORE

4.1.1 Implementation of the ISOM Project for upgradation of facilities to produce motor spirit (petrol) of Euro III / IV quality and the mixed xylene project for producing value-added mixed xylene, are progressing on schedule and are expected to be commissioned in the third quarter of the current financial year, 2006-07.

4.1.2 The implementation of the Refinery Upgradation and Expansion Project will enhance refining capacity to 15 MMTPA (presently the rated capacity is 9.69 MMTPA) and enable production of new value-added products. This will also improve the refining margins, due to improved distillate yield in lieu of low-value black oil pool. Engineers India Ltd. (EIL) has been appointed as Project Management Consultant (PMC) for implementation of this project. The project is expected to be completed in 48 months time, (by June 2010).

#### 4.2 KAKINADA REFINERY AND SEZ

Detailed feasibility studies for setting up a 7.5 MMTPA export-oriented Refinery at Kakinada Special Economic Zone, where MRPL is one of the promoters and also likely to be an Anchor industry, are under progress.

#### 4.3 RAJASTHAN REFINERY

MRPL, being the Government nominated buyer for the crude to be produced by Cairn-ONGC Unincorporated Joint Venture (UJV) in Rajasthan, is considering setting up a 150,000 bpd well-head refinery. This would be preceded by a trunk pipeline to evacuate the crude to the coast, for shipping out. EIL has prepared the Detailed Feasibility Report (DFR) and the same is under appraisal by an independent Financial Consultant. The setting up of this refinery will largely depend on the availability of crude oil from Rajasthan at an economically viable price, as well as attractive fiscal incentives from the State Government to make the project economically viable.

#### 4.4 MANGALORE MEGA-PROJECTS

ONGC-MRPL have received in-principle clearance from MOP&NG to proceed with the mega-projects, covering the Aromatics and Olefin complex, new 15 MMTPA refinery, LNG imports C2 C3 extraction & regasification, power generation and participation in Mangalore Special Economic Zone. MRPL will be the implementing agency for the projects, with decision and funding support from the parent, ONGC. In line with the MoU signed by ONGC, Govt. of Karnataka through Karnataka Industrial Areas Development Board (KIADB) and Kanara Chamber of Commerce & Industry (KCCI) and Infrastructure Leasing and Financial Services Limited (IL&FS), a Special Purpose Vehicle (SPV) Company, in the name of Mangalore SEZ Ltd, has been incorporated. The MRPL and ONGC Boards have already approved the setting up of Aromatic Complex at a cost of Rs. 4,852 crore, through a separate SPV Company in the Mangalore SEZ. DFR for the Olefin Complex has been completed by EIL and the same is under independent financial appraisal. The proposal to build a new export-oriented refinery of 15 MMTPA capacity at Mangalore SEZ, is also under consideration.

### 5. DIRECTORS

5.1 Consequent upon the completion of the tenure of service of Shri Subir Raha, as C&MD of ONGC on 24<sup>th</sup> May, 2006, ONGC has nominated Shri R. S. Sharma, as Non-Executive Chairman of your company. The Board places on record its highest appreciation for the valuable contributions made by Shri Subir Raha, during his tenure as Chairman, in turning around your Company from a virtually sick company to a strong, profitable and dividend paying company.

5.2 The President of India, has appointed Shri R. Rajamani as Managing Director of your Company w.e.f. 27<sup>th</sup> April, 2006, and Shri Lalit Kumar Gupta as Director (Finance) of your Company w.e.f. 12<sup>th</sup> May, 2006.

5.3 The President of India has nominated Shri Prabh Das, Joint Secretary (Refinery), Ministry of Petroleum & Natural Gas, Government of India as a Government Director on the Board of MRPL in place of Shri V. P. Joy. Shri Sunjoy Joshi, Government Director on the Board of MRPL has resigned vide his letter dated 31<sup>st</sup> July, 2006 on completion of his Central tenure at the MOP&NG. The Board places on record its deep appreciation for the valuable contributions and guidance provided by Shri Sunjoy Joshi and Shri V. P. Joy during their tenure as Directors of the Company.

5.4 ICICI Bank has withdrawn the nomination of Shri M. P. Modi w.e.f. 17<sup>th</sup> July, 2006 from the Board of the Company. The Board places on record its deep appreciation for the valuable contribution and guidance provided by Shri M. P. Modi during his tenure as the Chairman of the Audit Committee and Director of the Company.

5.5 HPCL has withdrawn the nomination of Shri C. N. Rao from the Board of the Company w.e.f. 1<sup>st</sup> September, 2005 and has nominated Shri S. Roy Choudhury (Director - Marketing of HPCL) in his place. HPCL has also withdrawn the nomination of Shri Arun Balakrishnan from the Board of the Company w.e.f. 13<sup>th</sup> July, 2006. Shri Girish Dave has resigned from the Board of the Company w.e.f. 26<sup>th</sup> July, 2006. The Board places on record its deep appreciation for the valuable contribution and guidance provided by Shri C. N. Rao, Shri Arun Balakrishnan and Shri Girish Dave during their tenure as Directors of the Company.

5.6 In accordance with the provisions of the Companies Act, 1956 and Articles of Association of the Company, Shri R. S. Sharma and Shri S. Roy Choudhury will retire by rotation at the 18<sup>th</sup> Annual General Meeting of the Company. Shri R. S. Sharma and Shri S. Roy Choudhury, being eligible, offer themselves for re-appointment.

5.7 Brief resumes of the Directors seeking re-appointment, together with the nature of their expertise in specific functional areas, the names of the companies in which they hold the directorship and the membership/ chairmanship of committees of the Board, and shareholding in the Company as stipulated under Clause 49 of the Listing Agreement with the Stock Exchanges are given in the Annexure to the AGM notice.

5.8 The Company has approached the Government of India (Ministry of Petroleum & Natural Gas) for advising the names of four Independent Directors to be appointed on the Board of the Company

# Mangalore Refinery and Petrochemicals Limited

## 6. DIRECTORS' RESPONSIBILITY STATEMENT

In accordance with the provisions of section 217 (2AA) of the Companies Act, 1956 your Directors state that:

- (a) The Annual Accounts have been prepared in compliance of the applicable Accounting Standards together with proper explanations relating to material departures;
- (b) The Directors have selected such accounting policies and applied them consistently and made reasonable and prudent judgments and estimates, so as to give a true and fair view of the state of affairs of the Company at the end of the financial year, and of the Profit & Loss of the Company for that period;
- (c) The Directors took proper and sufficient care for the maintenance of proper and adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- (d) The Annual Accounts are prepared on a "Going Concern" basis.

## 7. FIXED DEPOSIT

The Company has not accepted any fixed deposit during the year, from the public.

## 8. AUDITORS

- 8.1 The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India (C&AG). M/s. Varma & Varma, Chartered Accountants were appointed as Statutory Auditors of the Company for the Financial Year 2005 - 06 by C&AG.
- 8.2 The review and comments of the C&AG at Annexure II form part of this Report.

## 9. CORPORATE GOVERNANCE

- 9.1 The Company has complied with all the mandatory provisions of Clause 49 of the Listing Agreement relating to the Corporate Governance requirements. The Annual Report contains a separate section on the same.
- 9.2 As required under the said provisions, the Company has obtained the Certificate from the Auditors of the Company, which is annexed to and forms part of the Annual Report.
- 9.3 The Management Discussion and Analysis Report forms part of the Annual Report.

## 10. CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO

The additional information required to be disclosed pursuant to section 217(1)(e) of the Companies Act, 1956 read with the Companies (Disclosure of Particulars in the Report of Directors) Rules, 1988 is given in 'Annexure - I' forms part of this Report.

## 11. PARTICULARS OF EMPLOYEES

There are no employees whose particulars are required to be shown in terms of the provisions of Section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975 as amended.

## 12. INDUSTRIAL RELATIONS

The Company continues to enjoy a cordial and harmonious relationship with its employees.

## 13. COMMUNITY DEVELOPMENT

As a socially responsive organisation, your Company is committed to the well-being of the communities in the neighbourhood of the refinery. The various development activities taken up by the Company include the construction of approach roads, assistance for expansion of the existing school buildings, free artificial limb camps, eye camp, general medical camps in the neighboring villages, drinking water supply schemes, scholarships to meritorious students in schools around the area and the providing of computers to rural schools. The MRPL, CBSE school, which gets a revenue grant from your Company, provides education at nominal cost to about 950 children including more than 600 children from the villages around the refinery. MRPL Hospital serves the families around the refinery at nominal charges.


## 14. OFFICIAL LANGUAGE:

The Company is implementing the Official Language Policy as per the Annual Programme given by the Department of Official Language, Ministry of Home Affairs, Government of India. Programmes such as 'Hindi fortnight' and 'Hindi Day' were observed and 'Kavi Sammelan' was organised. Hindi Language training to employees and Hindi workshops were held. Some manuals and standard formats were made bilingual. Fifty computers were loaded APS bilingual software. Employees participated in TOLIC level Hindi competitions held in September 2005 and won many prizes.

## 15. ACKNOWLEDGEMENT

- 15.1 Your Directors wish to sincerely thank the Government of India (Gol), Ministry of Petroleum and Natural Gas (MOP&NG), Ministry of Finance (MOF), and other Ministries and Departments of the Central Government and the State Governments of Karnataka and Andhra Pradesh for their valuable support and co-operation.
- 15.2 Your Directors recognise and acknowledge the continuing co-operation of the New Mangalore Port Trust, and the members of the Oil Industry.
- 15.3 Your Directors appreciate the support received from Financial Institutions and Banks. Your Directors recognise the support received from all other stakeholders such as suppliers of crude oil and other inputs, vendors, contractors, transporters and others.
- 15.4 Your Directors acknowledge the unstinted support provided by the parent company, ONGC.
- 15.5 Your Directors thank the Shareholders for the confidence reposed by them in the Company.
- 15.6 Your Directors wish to place on record their sincere appreciation for the sustained and dedicated efforts put in by all the employees.
- 15.7 Finally, your Directors recognise the patronage extended by the ever-increasing community of valued customers and assure them the best possible satisfaction, at all times.

For and on behalf of the Board



(R.S.Sharma)  
Chairman

Place: New Delhi  
Date : 8<sup>th</sup> August, 2006





## 18th Annual Report

### ANNEXURE I TO THE DIRECTORS' REPORT

#### A. CONSERVATION OF ENERGY

Company continued its emphasis on energy conservation through operational optimisation, continuous monitoring and implementation of several energy conservation schemes

a) Major energy conservation & resource optimisation measures adopted/ implemented during the year

- i) Variable frequency drives were installed and commissioned for 119 LV and 3 MV drives, thus reducing power consumption.
  - ii) PSA Adsorbents were changed in Hydrogen-2 and Catalytic Reforming Unit-2 units to improve Hydrogen recovery.
  - iii) Heat recovery from splitter bottoms for feed preheating at Hydrocracker-1 unit.
  - iv) Heat recovery from product diesel for feed preheating at Hydrocracker-2 unit.
  - v) Inter-connection of Hydrocracker-1 & 2 stabilisers was carried out. This inter-connection reduced Light Hydrocarbon (including LPG) flaring & minimised unit throughput-reduction in Hydrocracker units whenever stabiliser compressor maintenance was necessary.
  - vi) Hydrogen rich Hydrocracker Reactor low-pressure separator off-gas was routed to Gas Oil Hydro-desulfurisation Unit as make-up-gas, resulting in conserving precious hydrogen.
  - vii) Double seals being provided for new floating roof tanks (2 MS, 1 Mixed Xylene, 2 HSD, 1 SKO), which are under construction.
- b) Additional investments and proposals, being implemented/ under consideration for reduction of consumption of energy / resources
- i) Crude pre-heating by the recovery of Fuel Oil product heat in Crude Distillation Unit-2.
  - ii) Steam lines insulation improvement.
  - iii) Modification is being carried out to route Phase-2 Amine flash column hydrocarbon vapors to Sulfur recovery Unit incinerator, thereby increasing waste heat steam generation.
  - iv) Condensate heat recovery for Air-conditioning Central Control Room, by vapor absorption mechanism.
  - v) Advanced Process control system implementation in Crude Distillation Unit-2.
  - vi) Recycling of stripped sour water as wash water in Hydrocracker units, to minimise fresh DM water consumption in the units.
- c) The measures (a) above resulted in reduction of energy consumption / resource optimisation of up to 18500 MT/year of Fuel Oil Equivalent, which is equivalent to a saving of approx. Rs.240 Million/year.
- d) Fuel & Loss in the Refinery for the year 2005-06 was 6.44 % wt on crude as compared to 6.53 % wt for 2004-05. The Energy Index was 64.84 MBTU/BBL/NRGF for the year 2005-06 as compared to 64.77 MBTU/BBL/NRGF for 2004-05.
- e) Energy Conservation award.

MRPL has won for the second successive year, (2004-05) the First Prize under Group-1 in the prestigious 'The Jawaharlal Nehru Centenary Awards for Energy Conservation

in PSU Re'ineres' instituted by Ministry of Petroleum & Natural Gas (MoP&NG). The award is based on the annual performance of the refinery in the area of energy consumption measured in terms of Specific Energy Consumption (MBtu/Bbl/NRGF).

MRPL's Energy performance during the last three years is as follows

Year	Crude throughput, MMTPA	NRG factor (CHT method)	MBN (Mbtu/Bbl/NRGF)
2003-04	10.07	5.046	66.25
2004-05	11.85	4.922	64.77
2005-06	12.12	4.889	64.84

f) Total Energy consumption and Energy consumption per unit of production.

A) Power and Fuel Consumption	Current year 2005-06	Previous year 2004-05
-------------------------------	-------------------------	--------------------------

1. Electricity

a) Purchased

Unit (Million KWH)	4.21	3.71
Total Amount (Rs. Million)	30.58	26.92
Rate / Unit (Rs./KWH) *	7.26	7.27

\* Includes demand charges for the contractual minimum demand / Actual demand of Rs. 11.509 Million (Rs.10.216 Million for 2004-05).

The unit cost per KWH excluding Demand charges is Rs.4.51 for 2005-06 (Rs. 4.51 for 2004-05).

b) Own Generation

i) Through Diesel Generator (at Sarpady)

Unit (Million KWH)	1.38	1.62
Unit per ltr. Of Diesel (KWH/ltr.)	3.57	3.38
Cost / Unit (Rs./KWH)	7.87	6.37

ii) Through Steam turbine generator

Unit (Million KWH)	567.48	585.70
Unit per litre Of Fuel Oil (KWH/ltr.)	2.13	2.20
Cost / Unit (Rs./KWH) **	5.91	4.42

\*\* Cost / Unit included Steam cost in refinery operation.

2. Fuel Oil

Quantity (MT) (Oil+Gas)	717252	701616
Total Amount (Rs. In Million)	9441.02	6135.79
Average Rate (Rs./MT)	13162.77	8745.23

3. Others / Internal Generation Diesel (at Sarpady)

Quantity (KL)	392.91	478.07
Total Cost (Rs. Million)	10.86	9.99
Rate (Rs./KL)	27628.13	20904.20

4. Consumption per unit production

Total crude processed (MT)	12117367	11848115
Total fuel consumed (MT)***	780879	773485
Total electricity (Million KWH)	567.09	585.70
Fuel consumption/ MT of crude processed	0.0644	0.0653
Electricity consumption KWH / MT of crude processed	46.80	49.43

\*\*\* includes fuel and loss

# Mangalore Refinery and Petrochemicals Limited

## B. TECHNOLOGY ABSORPTION

### Research and Development (R&D) activities during 2005- 2006

#### 1. Specific Areas in which R&D was carried out by the company:

- ❖ Studies on various Fuel oil stability additives and Diesel Pour point Depressants.
- ❖ Experiments were carried out to destroy odour-causing phenolic compounds in spent caustic using Chlorine Dioxide as an oxidant.
- ❖ Correlation study of Aromatic content in SKO /ATF by FIA (ASTM D 139) and by HPLC (IP 391) method was carried out.
- ❖ Correlation study of Calorific value of Diesel and FO products was carried out by
  - i. Calculation method using Density, via Hydrogen Content by NMR and
  - ii. Actual calorific value by Bomb Method.
- ❖ Correlation study on SKO – Burning Quality, Smoke Point and Aromatics was carried out with respect to aromatic content and types of aromatic components.
- ❖ Crude Assay for Cairn-ONGC Rajasthan (Saraswati) Field crude assay was carried out to explore the possibility of processing at MRPL.
- ❖ Laboratory studies of Bio diesel conducted.

#### 2. Benefits derived as a result of the above R&D:

- ❖ Study of Fuel Oil stability with additives indicated that
  - i. Destabilised residual fuel oil cannot be re-peptized with use of additives.
  - ii. Destabilised asphaltenes can only be dispersed into fine particles to avoid sludge separation by using additive.
  - iii. Additive treated fuel oil can only be used in boilers but not in DG sets.
- ❖ Evaluation of various pour point additives helped to identify suitable additives for procurement and use.
- ❖ Spent caustic treatment with chlorine dioxide, for destroying the odour-causing phenols was studied at the plant scale using chlorine dioxide generator and treated effluent. Experiments proved that undesirable odour-causing phenols from the treated effluent and spent caustic could be destroyed very easily. Initial experiments indicated very high treatment cost.
- ❖ Correlation study of Aromatic content determination in ATF by FIA method and HPLC method helped
  - i. To use HPLC method as an alternate accurate and faster than FIA method for ATF certification.
  - ii. To certify ATF as per UK def stan 91-91 issue 5 standards.
- ❖ Correlation study of Calorific value of Diesel and FO products using the Density Calculation method, Hydrogen Content by NMR and actual calorific value by Bomb Method helped to certify export HSD and Fuel oil faster.
- ❖ Data obtained from the correlation study of SKO – Burning Quality, Smoke Point and Aromatics helped to propose alternative tests instead of time consuming (24 Hours) burning quality tests to Bureau of Indian Standards (BIS). If accepted by BIS, SKO can be certified within 5-6 hours instead of 24 hours.
- ❖ Crude Assay for Cairn-ONGC Rajasthan (Saraswati) Field crude helped in exploring the possibility of processing the same at MRPL.

#### 3. Future plan of action:

- ❖ To carry out further plant scale experiments on spent caustic treatment with Chlorine Dioxide to minimise the operating cost.

- ❖ To carry out further correlation studies on SKO – Burning Quality, Smoke Point and Final Boiling point and Residue.
- ❖ To establish facilities to study corrosion on infrastructure and suggest suitable paint.
- ❖ To establish facilities to study properties of used-lubricating oil with respect to its additives and effect of the same.
- ❖ To establish facilities to study the quality of various polymeric additives being procured.
- ❖ To establish Catalysts Surface Area determination facilities.
- ❖ Conduct further experiments on production of Bio-Diesel.

#### 4. Expenditure on R&D:

- a) Capital : Rs.33.00 lakhs
- b) Recurring : Rs. 17.00 Lakhs
- c) Total : Rs. 50.00 lakhs
- d) Total R&D expenditure as percentage of total Turnover: - Negligible

#### 5. Technology Absorption, Adaptation & Innovation

- i) Efforts, in brief, made towards technology absorption, adaptation and innovation.
  - a) Technologies for Process Units of Phase-I & II have been fully absorbed.
  - b) Adaptation and innovation: Changes have been made in the process parameters and energy recovery, as a part of successful adaptation, particularly in Hydrocracker units, Catalytic Reforming Units and Gas Oil Hydro-desulfurisation unit.
- ii) Benefits derived as a result of the above efforts, include for example, product improvement, cost reduction, product development, import substitution, etc. Refinery throughput has increased by 2% (approx.), Energy consumption as Fuel & Loss has reduced by 0.02% (approx.), various grades of products including Euro-III qualities of MS & HSD are produced and sold in domestic market and / or exported.
- iii) In case of imported technology (import during the last five years effective April 1, 2005), the following information is available.
  - a) Technology imported  
Isomerisation process  
Variable frequency drives
  - b) Year of import  
2004-05
  - c) Has technology been fully absorbed?  
Isomerisation project is under installation, thus the technology absorption is in progress. Variable speed drives are already commissioned & thus the technology is absorbed.
  - d) If not fully absorbed, areas where this has not taken place, reasons therefore and future plans of action.  
Isomerisation project is under installation, thus the technology absorption is in progress.

## C. FOREIGN EXCHANGE EARNINGS AND OUTGO

	2005-2006 (Rs. in million)	2004-2005 (Rs. in million)
Foreign Exchange Earnings [includes Exports of Rs.Nil million (previous year Rs. 5,293.16 million) through IOCL].	1,19,171.92	61,913.21
Foreign Exchange Outgo (excluding imports of crude oil through IOCL).	1,64,952.47	1,04,148.46



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## ANNEXURE II TO THE DIRECTORS' REPORT

### COMMENTS OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA U/S 619(4) OF THE COMPANIES ACT, 1956 ON THE ACCOUNTS OF MANGALORE REFINERY AND PETROCHEMICALS LIMITED FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2006

I have to state that the Comptroller and Auditor General of India has no comments upon or supplement to the Auditors' Report under Section 619(4) of the Companies Act, 1956 on the accounts of Mangalore Refinery and Petrochemicals Limited for the year ended 31<sup>st</sup> March, 2006.

Mumbai  
14<sup>th</sup> July, 2006

**REVATHY IYER**  
Principal Director of Commercial Audit &  
ex-officio Member, Audit Board - II, Mumbai

### REVIEW OF ACCOUNTS OF MANGALORE REFINERY AND PETROCHEMICALS LIMITED FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2006 BY THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

Note : Review of accounts has been prepared without taking into account comments under Section 619(4) of the Companies Act 1956 and qualification contained in the Statutory Auditors' Report, if any.

#### 1. FINANCIAL POSITION :

	Rs. in Millions <u>2003-2004</u>	Rs. in Millions <u>2004-2005</u>	Rs. in Millions <u>2005-2006</u>
<b><u>LIABILITIES</u></b>			
a) Paid up Capital			
i) ONGC	12,553.54	12,553.54	12,553.54
ii) HPCL	2,971.54	2,971.54	2,971.54
iii) Bank / Financial Institutions	139.36	142.54	285.29
iv) Others	1,953.56	1,950.39	1,807.67
b) Reserves & Surplus			
i) Free Reserves & Surplus	0.00	527.80	2,844.82
ii) Share Premium Account	3,490.53	3,490.53	3,490.53
c) Borrowings from			
i) ONGC	24,000.00	15,000.00	15,000.00
ii) From Financial Institutions	725.30	725.30	725.30
iii) From Banks	753.03	753.03	753.03
iv) Foreign Currency Loans	20,985.16	15,943.92	15,314.95
v) Cash Credit/Working Capital Demand Loan	1,500.00	1,363.64	0.00
vi) CST Deferment Loan	479.44	879.44	1,279.44
d) i) Current Liabilities and Provisions	16,339.88	26,417.56	24,568.47
ii) Provision for gratuity	24.15	43.22	45.46
iii) Deferred Tax Liability (Net)	0.00	0.00	1,371.34
<b>Total</b>	<b>85,915.49</b>	<b>82,762.44</b>	<b>83,011.38</b>
<b><u>ASSETS</u></b>			
e) Gross Block	67,219.52	67,401.91	67,793.61
f) Less : Cumulative Depreciation	19,583.39	23,353.45	26,834.85
g) Net Block (e - f)	47,636.13	44,048.46	40,958.76
h) Capital work in progress	31.95	779.77	4,092.30
i) Investments	0.00	0.00	272.78
j) Current Assets, Loans and Advances	25,460.99	36,849.15	37,687.54
k) Deferred Tax Assets	5,904.53	779.79	0.00
l) Miscellaneous Expenditure not written off	610.54	305.27	0.00
m) Accumulated Loss	6,271.35	0.00	0.00
<b>Total</b>	<b>85,915.49</b>	<b>82,762.44</b>	<b>83,011.38</b>
n) Working Capital [j - d (i)]	9,121.11	10,431.59	13,119.07
o) Capital Employed (g + n)	56,757.24	54,480.05	54,077.83
p) Net Worth (a+b (i) + b(ii) - l - m)	14,226.63	21,331.06	23,953.39
q) Net worth per rupee of paid-up Capital (in Rs.)	0.81	1.21	1.36

#### 2. RATIO ANALYSIS :

Some important financial ratios on the financial health and working of the Company at the end of last three years are as under :

##### A. LIQUIDITY RATIO :

	<u>2003-2004</u>	<u>2004-2005</u>	<u>2005-2006</u>
Current Ratio (j / d (i))	1.56	1.39	1.53
(Current Assets to Current Liabilities & Provisions but excluding provision for Gratuity)			

##### B. DEBT EQUITY RATIO :

Long term debt to equity {c(i) to (vi)} but excluding short term loan / p)	2.36	1.06	0.87
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##### C. PROFITABILITY RATIOS : (%)

a) Profit before tax to			
i) Capital employed	10.12	26.81	11.51
ii) Net Worth	40.38	68.49	25.99
iii) Sales	5.04	7.89	2.49
b) Profit after tax to equity	32.29	41.24	15.51
c) Earning per share (in rupees)	2.62	5.02	2.12



# Mangalore Refinery and Petrochemicals Limited

## 3. SOURCES AND UTILISATION OF FUNDS F. Y. 2005-2006 :

(Rs.in Millions) (Rs.in Millions)

### SOURCES OF FUNDS

1) Funds from operation		
Profit after tax	3,716.15	
Depreciation	3,500.17	
	7,216.32	
Less : Profit on sale of fixed assets	-6.49	7,222.81
ii) Decrease in Deferred Tax Asset	779.79	
iii) Decrease in Miscellaneous Expenditure	305.27	1,085.06
iv) Sale of fixed assets		32.63
v) Increase in share capital (pending allotment)		0.04
vi) Increase in Deferred Tax Liability		1,371.34
		9,711.88

### APPLICATION OF FUNDS

i) Increase in investments	272.78	
ii) Increase in Working Capital	2685.24	
iii) Increase in Fixed assets	449.59	
Add : Increase in capital work in progress	3312.53	6,720.14
iv) Dividend Payments including Dividend tax paid	1399.13	
v) Decrease in borrowings (Net)	1592.61	2,991.74
		9,711.88

## 4. RESERVES AND SURPLUS :

Reserves and Surplus amounted to Rs. 3,490.53 million, Rs.4,018.33 million and Rs.,6,335.35 million as at 31<sup>st</sup> March 2004, 31<sup>st</sup> March 2005 and 31<sup>st</sup> March 2006 respectively.

## 5. WORKING CAPITAL :

The working Capital (i.e. Current Assets less Current Liabilities) increased from Rs. 9,121.11 million in 2003-2004 to Rs. 10,431.59 million in 2004-2005 and increased to Rs. 13,119.07 million in 2005-2006. As a percentage of sales it was 8.01% in 2003-04, 5.64% in 2004-05 and 5.25% in 2005-06. The Working capital as percentage of inventory was 76.69% in 2003-04, 54.57% in 2004-05 and 69.39% in 2005-06.

## 6. WORKING RESULTS :

The working results of the Company in the last three years are as given below :-

	2003-2004 (Rs. in Millions)	2004-2005 (Rs. in Millions)	2005-2006 (Rs. in Millions)
i) Sales (excluding excise)	113,906.44	185,083.35	249,675.40
ii) Profit before tax/ (Loss)	5,745.04	14,608.74	6,225.83
iii) Profit after tax/ (Loss)	4,594.15	8,797.58	3,716.15
iv) Closing stock in process	1,262.27	1,270.70	829.29
v) Closing stock of finished products	5,941.42	7,876.36	5,377.94
vi) Value of production (Sales(excl.excise)+ increase in stock)	115,879.56	187,026.72	246,741.49
Closing stock in terms of value of production per month (in days)	18.71	15.37	7.96

## 7. INVENTORY LEVELS :

i) Raw Materials (Crude oil in stock including in transit)	4,335.50	9,583.12	12,085.99
ii) Stores and spares (in stock and in transit)	354.27	385.99	613.79
iii) Stock - in - Process	1,262.27	1,270.70	829.29
iv) Finished products	5,941.42	7,876.36	5,377.94

There is an increase in Raw Material Stock by 26.12% over previous year. In terms of quantity, the closing stock of crude works out to 17 days requirement

## 8. SUNDRY DEBTORS :

The sundry debtors vis-a- vis sales decreased from 7.12% in (2003-2004) to 5.43% in (2004-2005) and further decreased to 4.69% in (2005-2006).

(Rs. in Millions)

As on 31 <sup>st</sup> March	Sundry debtors considered good (Rs.)	Sundry debtors considered doubtful (Rs.)	Total Sundry Debtors (Rs.)	Sales (Rs.)	Percentage of Sundry Debtors to Sales
2004	8,093.31	19.75	8,113.06	113,906.44	7.12
2005	9,607.98	449.19	10,057.17	185,083.35	5.43
2006	11,530.20	181.12	11,711.32	249,675.40	4.69

REVATHY IYER

Principal Director of Commercial Audit &  
ex-officio Member, Audit Board - II, Mumbai

Mumbai  
14<sup>th</sup> July, 2006



# 18th Annual Report

## MANAGEMENT DISCUSSION AND ANALYSIS REPORT

### 1. INDUSTRY

- 1.1 The most significant development in the global market has been the relentless increase in crude oil prices over the past year-and-a-half. When we take in account, the geo-political uncertainties, abetted by the seasonality of demand and speculative trading, the trend does not seem to be relenting.
- 1.2 The prices of crude oil in the international market are now reaching close to their highest-ever levels (average Indian Crude Oil basket for July, 06 was approx. US\$ 71.36 per barrel). The impact of this global price trend on the domestic situation has been two fold; First, the burden of subsidy on PDS Kerosene and domestic LPG has ballooned to unprecedented levels, the burden of subsidies for the current year (2006-07), at 2005-06 prices, is estimated to be Rs. 15,328 crore on account of PDS Kerosene and Rs. 11,276 crore on account of domestic LPG, (as per the Report of the Committee on Pricing and Taxation of Petroleum Products, February, 2006). Second, the Government was forced to retract on its policy of freedom on the pricing of petrol and diesel, and mitigate the impact of 'pass-through' of international prices to domestic consumers.
- 1.3 From time to time, pricing decisions are taken by the Government to narrow the gap between international prices and the domestic prices of major petroleum products. It does so by various methods such as by adjusting customs & excise duties; by increasing the selling prices; issue of Bonds. In view of the sensitive nature of retail prices, the Govt. is constrained to take such decisions on an adhoc basis, which does not however provide for a satisfactory economic solution.
- 1.4 It is now being gradually recognised that the Government's decision to discontinue the Administrative Price Mechanism (APM) effective March 31, 2002 could not be implemented in a real sense. The Pool Accounts were closed, yet price controls had to be exercised by the Government due to an unprecedented rise-in global crude prices. APM was a structured and logical process with reasonable transparency. This was substituted by ad-hoc decisions which often meant the extending of discounts by upstream companies to downstream companies, and the issue of adhoc subsidies/bonds by Government. Effective April 2005, the stand-alone refineries have also been instructed to share these under-recoveries of the PSU Oil Marketing Companies (OMCs) in an adhoc manner through offering discounts on products sold by them to PSU OMCs. The company is in active discussions with the Ministry of Petroleum & Natural Gas (MOP&NG), seeking to find a more equitable approach on these discounts, especially when it is taken into-consideration that MRPL is exporting more than half of its production, where the margins are much lower compared to Domestic Sales. The company is also pursuing with Government to impress upon the PSU OMCs for reimbursing the irrecoverable taxes.
- 1.5 Since international prices are unlikely to soften in the near-to-medium term and may remain high as well as volatile, it becomes essential that some permanent mechanism be devised to ensure that the oil companies continue to remain economically viable. Failing this, the oil companies will find it extremely difficult to make the much-needed capital expenditure required for complying with the newer Euro III/IV norms in times to come and for modernising the refineries to achieve energy efficiency and higher productivity.
- 1.6 An appropriate pricing regime which promotes efficiency, needs to be evolved in relation to petrol and diesel on the one hand and domestic LPG and PDS kerosene on the other. The issues

of adjusting prices and targeting them appropriately, has become very urgent. In view of the same, Government of India had constituted an Advisory Committee on pricing and taxation of petroleum products, headed by Dr. C. Rangarajan, Chairman, Economic Advisory Council (EAC) to the Prime Minister. The Committee submitted its report in February, 2006.

### Major Recommendations of the Rangarajan Committee

- 1.6.1 Adopting the trade-parity principle for pricing of petrol and diesel, based on a weighted average of the import-parity and the export-parity prices in the ratio of 80:20 respectively. This principle of trade-parity pricing will apply for the refinery gate price as well as for determining the retail price.
- 1.6.2 Terminating the principle of freight equalisation for calculating the price of petrol and diesel at different locations.
- 1.6.3 The government should keep itself at arms length from the actual price setting of petrol and diesel, and allow the OMCs the flexibility to fix the actual retail price subject to the indicative trade-parity price ceiling.
- 1.6.4 Reduce the customs duty on petrol and diesel from the present 10 % to 7.5%.
- 1.6.5 Excise levies on petrol and diesel should be made specific in contrast to the present combined levy.
- 1.6.6 Subsidised kerosene to be restricted to Below Poverty Line (BPL) families.
- 1.6.7 Adjust the price of domestic LPG by Rs. 75 per cylinder immediately and then progressively increase it further to bring it in line with the international price.

It appears that after consideration of the recommendations, the Government has decided to accept and implement the recommendations referred at para 1.6.1 and 1.6.4 effective June, 2006. Implementation of these two recommendations are expected to reduce the refining margins available to refineries on the domestic sales of petrol and diesel.

### 2. STRATEGY

- 2.1. India from being a net importer of refined petroleum products upto 1999-00, has now emerged as a net exporter. Given the expected growth in overall product demand at 4% compounded annually, coupled with fresh capacity additions, the domestic refining capacity will remain in excess of domestic demand for petroleum products for a very long time.
- 2.2. The company continues to lay more emphasis to develop export potentials to sell its surplus production capacity. The company has recently finalised a Term Contract with State Trading Corporation, Mauritius to export about 1.03 MMT Products to Mauritius over a period of one year beginning August, 2006. The company has also finalised another Term Contract to supply approx. 600 TMT of High Speed Diesel to ENOC (National Oil Company of the Kingdom of UAE) during June, 2006 to December, 2006.
- 2.3. In addition to the proposed augmentation of refining capacity from the present rating of 9.69 MMT/PA to 15 MMT/PA, actions have been initiated to upgrade the refinery, to recover distillates from black oil pool and extract value-added products. Necessary management approvals from the boards of MRPL and ONGC are already in place. While expanding the capacity to 15 MMT/PA, your company proposes to use more of Heavy / High Sulphur and High Acid crudes, which are comparatively cheaper in the international market. This is expected to significantly improve the Refinery Margins and will ensure long-term economic viability of the company's operations.